

# **Children with Visual Impairments in Tanzania**

*An investigation of the Challenges which  
Children with Visual Impairments face in  
Learning and Participation in Inclusive  
Primary schools*

**Devota John Kiomoka**



Høgskolen i **Hedmark**

**Master's Thesis  
Master in Adapted Education**

**Faculty of Education and Natural Sciences**

**Hedmark University College**

**Spring, 2014**

# Abstract

This study aimed at investigating the challenges which children with visual impairments face in learning and participation in inclusive primary schools. It was a qualitative case study design, which specifically aimed first, to examine how the learning environment affects learners with visual impairments in inclusive primary school. Second, to explore the social interaction of learners with visual impairments in learning and participation in the inclusive schools.

Purposive sampling was adopted and one school was selected from one municipality in Tanzania. The study involved 15 learners with visual impairments, 10 sighted learners and 6 teachers. Thus the sample size included 31 respondents. The data were collected through semi-structured interviews and non-participant observation. The data was subjected to transcription and thematic analysis, of which the results are presented in accordance to themes, categories and direct quotes.

The findings revealed that there were insufficient teaching and learning resources; shortage of teachers, particularly specially trained teachers and unfavourable physical environments. The findings further showed that there was also poor cooperation among teachers themselves as well as between them and parents. It was also revealed that there was a high rate of stigmatization to learners with visual impairments. On the other hand, the findings also showed that there was no affirmative policy on inclusive education in the country.

Based on the findings, the investigator recommends that there is a need for the Ministry of Education and Vocational Training (MoEVT) and different stakeholders to collaborate and show their commitment in the provision of inclusive education by providing enough and relevant materials for the learners with disabilities; recruiting more teachers (especially the specialized ones in inclusive education), and making sure that the developed curriculum is flexible enough to meet the needs of each individual learner. The investigator further recommends that more education be provided to the parents of children with visual impairments and other forms of disabilities on the importance of educating their children. Also, the policy planners should incorporate inclusive education in the curriculum for general teachers' education.

# Acknowledgement

First and foremost, I owe my sincere thanks to the Almighty God for his strength and guidance from the start to the finish of this work, as without Him, this work would have not been completed.

Special thanks should go to the Norwegian State Education Loan Fund (Lånekassen) for the scholarship they offered me through Quota Scheme Program to pursue a Master's degree in adapted education. In the same weight, thanks should also go to all Hedrmark community, particularly the international office for all supports they provided to me during my studies.

I also wish to express my sincere appreciations to my supervisor, Kari Nes, who has worked tirelessly in shaping my professional knowledge, and giving me support and guidance from the start to the final stage of my work. Also special thanks go to my co - supervisor, Thor Ola Engen for his support wherever and whenever I needed it. Likewise, I wish to extend my thanks to the Tanzania's Ministry of Education and Vocational Training (MoEVT) for offering me a study leave and allowing me to go for the study abroad.

With deep gratefulness and heartfelt affection and love, I extend my sincere thanks to my beloved husband, **Thadeo Jeconiah Maina** for his valuable encouragement, devotion and patience for all these three years I have been away from home. His moral support and motivation made invaluable contributions into the success of this study. I further extend my heartfelt affections and love to my son **Jeconiah**, for his tireless waiting for me to finish my studies. In line with this, I am full of appreciation for the significant role played by my family friend, Vincent J. Cosmas, so I say thank you indeed.

Special thanks go to all my friends who in one way or another have made a contribution to the successes of this work. Since it is not possible to mention all of them here, their support is highly valued. Finally, I would like to extend thanks to my respondents from the primary school where the data was collected, and who agreed to participate in the study. Without them, this study could not have been completed.

# Dedication

This study is dedicated firstly, to my dearest parents: The late Mama, Prisila John and Mzee John kiomoka. *May the Almighty God rest their souls in eternal peace.* Amen. Secondly, to my beloved and sweetheart husband, Thadeo Jeconiah Maina and my lovely son Jeconiah for their serenity, understanding, prayers and support.

# Abbreviations

BEDC	Basic Education Development Committee
BTP	Block Teaching Practice
CCBRT	Comprehensive Community Based Rehabilitation in Tanzania
CCTV	Closed –Circuit Television
CWDs	Children with Disabilities
EFA	Education for All
ESR	Education for Self Reliance
ICC	International Conference Centre
IE	Inclusive Education
MoEC	Ministry of Education and Culture
NBS	National Bureau of Statistics
MDGs	Millennia Development Goals
MoEC	Ministry Of Education and Culture
MoEVT	Ministry of Education and Vocational Training
NGOs	Non – Governmental Organizations
PEDP	Primary Education Development Program
TSB	Tanzania Society for the Blind
TFDPO	Tanzania Federation of Disabled People Organizations
TSL	Tanzania Sign Language
UDL	Universal Design for Learning
UNESCO	United Nations Educations, Scientific and Cultural Organizations
UPE	Universal Primary Education
URT	United Republic of Tanzania
ZPD	Zone of Proximal Development

# Table of Contents

Abstract .....	2
Acknowledgement.....	3
Dedication .....	4
Abbreviations .....	5
<b>1 INTRODUCTION .....</b>	<b>11</b>
1.1 Background to the study.....	11
1.2 Statement of the problem .....	16
1.3 The country profile.....	17
1.4 Purpose, objectives and research questions.....	17
1.5 Operationalization of the key terms and concepts .....	18
1.5.1 Inclusion .....	18
1.5.2 Impairment and disability .....	18
1.5.3 Visual impairments.....	19
1.5.4 Learning and participation.....	19
1.6 The structure of the thesis .....	19
<b>2 THEORETICAL PERSPECTIVE .....</b>	<b>20</b>
2.1 Social cultural theory .....	20
2.2 Inclusive education.....	24
2.3 Inclusion as overcoming barriers to learning and participation .....	26
2.4 Visual impairments and learning and participation.....	27
2.5 Learning environment for learners with visual impairments .....	29
2.6 Social environment for children with visual impairments .....	30
2.7 Empirical studies on inclusive education in a global context .....	31
2.8 Empirical studies on inclusive education in Tanzania .....	33
2.9 Knowledge gap.....	34
<b>3 RESEARCH METHODOLOGY.....</b>	<b>35</b>
3.1 Research approach and design .....	35
3.2 Philosophy underpinning the study .....	36
3.3 Location of the study.....	37
3.4 Target population .....	37
3.5 Sample and sampling procedures .....	37
3.5.1 Sample size.....	38

3.6	Data collection instruments .....	39
3.6.1	Interview .....	39
3.6.2	Observation.....	40
3.7	Reliability and validity of the study .....	41
3.8	Data analysis and presentation .....	42
3.9	Ethical consideration .....	43
3.10	Limitations of the study.....	44
3.11	Delimitation of the study.....	44
4	<b>PRESENTATION AND ANALYSIS OF THE FINDINGS .....</b>	<b>45</b>
4.1	Learning environment for learners with visual impairments in inclusive school .....	48
4.1.1	Teachers’ extra time with learners with visual impairment .....	48
4.1.2	Teachers’ cooperation among themselves in handling learners with visual impairments.....	49
4.1.3	The attitudes towards inclusion of learners with visual impairments .....	49
4.1.4	Infrastructures within the school compound .....	51
4.1.5	Teaching and learning materials.....	51
4.1.6	Class size and management .....	53
4.2	Social interaction of learners with visual impairments in learning and participation in inclusive schools. ....	53
4.2.1	Interactions between learners with visual impairments and sighted Peers.....	53
4.2.2	Stigmatization.....	54
4.3	Factors affecting the implementation of inclusive education in mainstream schools... ..	55
4.3.1	Mode of admission .....	55
4.3.2	Number of teachers and their qualifications.....	56
4.3.3	Channel for counselling.....	56
4.3.4	Support after classes .....	57
4.3.5	Cooperation among teachers and parents .....	57
4.3.6	Difficulties during the holidays .....	58
5	<b>DISCUSSION OF THE FINDINGS .....</b>	<b>59</b>
5.1	Learning environment for learners with visual impairments in inclusive school .....	59
5.1.1	Teachers’ cooperation among themselves in handling learners with visual impairments.....	60
5.1.2	Infrastructures within the school compound .....	61
5.1.3	Teaching and learning materials.....	61

5.1.4	Class size and management .....	62
5.2	Social interaction of learners with VI in learning and participation .....	63
5.2.1	Interactions between learners with visual impairments and sighted peers .....	63
5.2.2	Stigmatization.....	64
5.3	Factors affecting the implementation of inclusive education in mainstream schools...	65
5.3.1	Mode of admission .....	65
5.3.2	Number of teachers and their qualifications.....	66
5.3.3	Channel for counselling.....	66
5.3.4	Support after classes .....	67
5.3.5	Cooperation among teachers and parents .....	67
5.3.6	Difficulties during the holidays .....	68
6	<b>CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>70</b>
6.1	Conclusion.....	70
6.2	Answering the research questions in short.....	71
6.3	Recommendations .....	72
7	References .....	74
	Appendices .....	82
	Appendix A: Semi -Structured Interview Guide for learners with visual impairments.....	82
	Appendix B: Semi -Structured Interview Guide for Teachers.....	84
	Appendix C: Semi -Structured Interview Guide for Sighted Peers .....	86
	Appendix D: Observation Guide.....	87
	Appendix E: Approval letter from NSD .....	88
	Appendix F: Permission letter from University College of Hedmark .....	89
	Appendix G: Permission Letter from the Regional Administration and Local Government... 90	
	Appendix H: Permission Letter from the Municipal Council .....	91
	Appendix I: Introduction letter to the Teachers/Respondents.....	92
	Appendix J: Letter to the Parents .....	93
	Appendix K: Informed Consent Form .....	94



# List of Figures

Figure 1: A model of the Zone of Proximal Development .....	22
Figure 2: Vygotskian social cultural model .....	24
Figure 3: Three dimensions for the development of inclusion in school.....	27
Figure 4: Themes and categories .....	47

# List of Tables

Table 1: A profile of the respondents..... 46

# 1 INTRODUCTION

This chapter presents the background of the study and the reasons why the study was considered important to be carried out, also the statements of the problem, the purpose of the study, research objectives and questions. It further presents the operationalized key terms and concepts as well as the structure of the thesis.

## 1.1 Background to the Study

The concept of inclusive education seems to be a recent movement regarding education in developing countries. Looking back at African communities, Tanzania in particular, there have been some elements of inclusive education (Mmbaga, 2002). Historically, they had indigenous customary education which involved formal, informal and non-formal education. Such education involved positive practices of some elements of inclusiveness in education. People were engaging in social and economic activities. According to Kisanji (1998), the competent individuals were demonstrating various skills in different activities like making thread from cotton, making fish traps, storytelling and dances. Indeed, indigenous education was based on family belongingness, the values of the society, and collaboration. Kisanji (ibid) further argues that indigenous education would parallel with equalization of opportunities and inclusive education. Furthermore, Kisanji (1998, p.58) pointed out four principles of indigenous customary education, of which two of them are said to be related to the 'primary goal' of inclusive education. These are:

- **Functionality of knowledge and skills:** All the knowledge, attitudes and skills embodied in the curriculum of the customary education were based on cultural transmission and advancement.
- **Community orientation:** All educational content and practice was based on and within the community.

Previously, the education for learners with disabilities was provided in special schools. In such schools, learners were designated according to types of disabilities and gender (Tungaraza, 2010). The special schools for people with disabilities were started by church movements and non-governmental organizations as early as the 1950s while Tanzania was still under the colonial administration of the British government. For instance, the first school

for the blind was Buigiri (22 miles from Dodoma municipality). It was established by the Anglican Church in 1954 (ibid).

In post-independence, the Tanzanian government under the presidentship of Julius J. K. Nyerere (the first President of the United Republic of Tanzania) struggled for better education for children. According to him, the inherited colonial education was segregative in nature and was based on religion, race, gender background and ethnic groups. The formation of education for self-reliance (ESR) in 1967 by Mwalimu J. K. Nyerere aimed at eliminating the segregative education system. As a result, the teaching and learning in the country increased at all levels of education and was designed and planned according to the needs of people in the society (Nyerere & President, 1977). The education for self-reliance (ESR) policy laid a basis for inclusive education (Mmbaga, 2002). However, in 1977 the Tanzanian government embarked on a policy of universal primary education (UPE), with the aim of making all children of school age have access to primary education, though the economic difficulties of 1980s set it back (Miles, 2011).

However, the official development of inclusive education in Tanzania was observed after the Salamanca statement of 1994. The statement was the outcome of the world conference on special needs education held in Salamanca, hosted by the government of Spain in cooperation with UNESCO. The fundamental policy of the Salamanca conference promotes the approach towards inclusive education, where schools are supposed to accommodate all learners, especially those with special educational needs (UNESCO, 2009). The active implementation of inclusive education in Tanzania was started in 1998 by the government in cooperation with the Salvation Army and UNESCO when a pilot project was conducted in Temeke district in the Dar es Salaam region (Tungaraza, 2012).

By the year 2001, the government introduced the Primary Education Development Program (PEDP) which among other things, intended to provide quality education and vocational skills for each and every learner in the community (Polat, 2011). Up to the year 2010, there were 196 inclusive primary schools in the country compared to 4 schools in 1998 (Tungaraza, 2012).

Although the Tanzanian government is working hard to increase the number of inclusive schools, teaching and learning is not well accommodative for learners with disabilities especially, those with visual impairments. Even for those who are already accessing inclusive education, the education provided does not meet their needs (ICC, 2008). In most developing parts of the world, Africa in particular, the provision of inclusive education is not well realized (Zindi, 1997). However, Tanzania is still on the move for different changes to improve the situation in the inclusive schools. For the implementation of inclusive education, for example, the country has signed various national policies. Some of these are:

*The education and training policy [ETP] (1995):* This aims at the provision of education for all children regardless of their colour, religion, sex and disabilities (MoEC, 1995). In this policy, the statements regarding the rights to education for learners with disabilities were emphasized, though practically, little is being implemented. This policy also aimed at producing more general teachers and special education trained teachers as well (MoEVT, 2009).

*The child development policy (1996):* This policy aimed to protect the rights of the child in education. That is, to ensure that all school - age children are enrolled. It also emphasizes that the Ministry of Education and Vocational Training has to make sure that all children who are above primary school age, those who had dropped out and those who never went to school have to attend schools (MoEVT, 2009).

*National disability policy (2004):* In Tanzania there was no clear and specific policy to guide the right to education for people with disabilities before the introduction of this policy. The policy among other things, calls for collaboration between the government and various educational stakeholders to provide a favourable learning environment in inclusive education (URT, 2004). Anyway, considering how inclusive education philosophy is articulated in Salamanca statement, the policy does not reflect it in any (Mmari, Mzee, & Frankenberg, 2008).

*Primary education development program (PEDP, 2002-2006):* This program is said to have had a significance outcome on the access and quality for primary education in the country. However, the program did not put learners with disabilities into consideration (Karakoski & Stroem, 2005).

In correspondence to the international policies in the country with regards to inclusive education, there is no clear guideline which is officially prepared specifically for the provision of the education for learners with disabilities. All the provisional guidelines for the education are based on the policies and documents for general education (Karakoski & Stroem, 2005). As a result, there is no affirmative action plan on how inclusive education should be carried out. Thus, Tungaraza (2012) advises that in order to have all children accommodated well in inclusive schools, the government has to have proper inclusion plans and implementation strategies.

The right to education is a fundamental human right. It has to be protected and extended to everybody like any other human right (UNESCO, 2008). To build and develop the country and welfare of the people, education has been important and highly prioritized in Tanzania (Okkolin, 2013). Before the coming of the special schools in the country, learners with disabilities were totally “isolated physically, socially and academically” from others (Tungaraza, 2012, p. 17). However, today learners with disabilities have opportunities to access education and attend schools alongside their peers without disabilities in inclusive primary schools in the country.

Tanzania is among the forefront of countries that ratified the Salamanca statement in 1994, and various other United Nations documents, fighting for the rights to education for children with disabilities in inclusive settings (TFDPO, 2010). As a result, Education for All (EFA), which aimed at providing quality education for all learners, led to the introduction of inclusive education in Tanzania. In turn, the introduction of inclusive education resulted in the inclusion of learners with visual impairments (VI) in ordinary primary schools where they learn along with their sighted peers.

According to Rujwahura (2008), it has been estimated by UNESCO, NGO’s and the Ministry of Labour that the number of people with disabilities in the country is about 3.5 million. The enrolments and performance rates seem to be very low although there are big numbers of learners with visual impairments (VI) in the country. For instance, in 2012 about 1311 children with visual impairments were enrolled in primary schools, whereas only 425 students were enrolled in secondary schools country wise (MoEVT, 2012).

However, many studies and various reports have revealed that the current education system has not yet managed to meet the needs and interests of the vulnerable children in schools, particularly those with disabilities (MoEVT, 2009). This implies that, regardless of the development of inclusive education in the country, the needs of learners with disabilities, learners with VI in particular, are not yet fully met due to various challenges. For instance, during the celebration of the International Day of Braille Writing, the Minister for Health and Social Welfare pointed out that there was lack of Braille books, and a shortage of teachers and working facilities (Onyango, 2013).

With regard to the education sector reviews of 2006 and 2007, there were no improvement for learners with visual impairments and other vulnerable groups as drop-out and repetition of the classes rates were still high, even though essential achievements in students' enrolments, infrastructures, and provision of materials were recorded (MoEVT, 2009). Likewise, Eleweke and Rodda (2002) posit that even though there are positive thoughts towards inclusive education in developing countries, Tanzania included, in practice the standards of inclusion are not happening in most of the schools. Thus, reflecting more on that condition and argument, the current study was deemed important in order to investigate more about the challenges facing children with visual impairments in learning and participation in inclusive primary schools in Tanzania. This was very important because before attempting to plan a solution for the problem, there is a need to unveil the degree and possibility of the potential issues (Polat, 2011).

Another reason for embarking on the current study was that very few studies focusing on inclusion of learners with disabilities, especially those with visual impairments, have been carried out in a Tanzanian context. Arguing along this line of thought, Peters (2008) points out that, in disability related issues, there seems to be a lack of consistent data (as cited in Polat, 2011). Apart from the fact that there are very few studies in the field, many of them have focused much on teachers and excluding learners who are the vulnerable ones in teaching and learning processes in inclusive schools. Thus, any study that fails to involve local stakeholders at the grassroots is considered insufficient (Polat, 2011). Therefore, I was so much motivated to conduct this study in order to cover the existing gap by involving learners with visual impairments so as to make a valuable contribution to the existing body of research knowledge which will be used as a future reference for similar studies.

On top of that, I decided to choose the current study due to my own personal interest and experiences in the teaching profession. Being a tutor at one of the Teachers' Colleges in Kilimanjaro region in Tanzania, one of my tasks was to supervise and assess student teachers during their block teaching practice (BTP) in regular primary schools. In one of the classes, I observed that there was a learner with visual impairment whose learning environment was not supportive. I further observed that the student teacher did not manage to meet the needs and interests of that particular learner. For instance, there was no Braille text book. Furthermore, the only assistance available was from a fellow sighted learner who was sitting near to him, who had to read for him what was written on the chalkboard. After the observation, I talked with the learner with VI. The learner admitted that he was facing many challenges in the learning process. Due to that experience, I developed interest in exploring more about the challenges which children with visual impairments face in learning and participation in inclusive primary schools. In connection with that as the result of this study, it would help me to gain more knowledge which in turn would help me and other fellow teachers to share the knowledge with student teachers considering that currently in Tanzania there is only one public Teachers Training College which produces special needs education teachers.

## **1.2 Statement of the Problem**

The government of United Republic of Tanzania like others worldwide is encouraged by global efforts such as EFA, Millennium Development Goals (MDGs), and Salamanca statement among others to improve and create a learning environment that would allow all learners regardless of their differences (physical, economic, social, and psychological) to learn together in inclusive schools. Following such initiatives, Tanzania is among the active nations that have ratified and included various world policies and conventions regarding inclusive education in its various education programmes at different levels. The aim is to improve education services and increase accessibility for learners with special needs, especially children with visual impairments, and create opportunities and access to quality primary education.

Despite such government initiatives, repetition of the classes and drop-out among children with visual impairments in primary schools are still high, even though there has been a good record of improved infrastructures and enrolment in primary schools (MoEVT, 2009; Tungaraza, 2010). That being the case little is known about the challenges faced by children



with visual impairments in learning and participation in inclusive primary schools. This has been due to the fact that few research efforts have been focused in that particular area of study. Therefore, the current study was designed to investigate the challenges which children with visual impairments face in learning and participation in inclusive primary schools in Tanzania.

### **1.3 The Country Profile**

Tanzania is located in the eastern part of Africa. To the north, it is bordered by Kenya and Uganda, to the west, Rwanda, Burundi and Democratic Republic of Congo, to the South Zambia, Malawi and Mozambique and to the Eastern part, it is bordered by the Indian Ocean. According to the national census of 2012, the country's total population is 44, 928,923 (NBS, 2013). The education system in the country is currently structured based on formal and non-formal education and training. That is, 2 years for pre-primary education, 7 years for primary education, 6 years for secondary education (this includes 4 years for Ordinary Secondary Education and 2 years for Advanced Secondary Education), followed by certificates and diplomas in teacher education and other vocational training, and tertiary education which is at least 3 years of schooling and above (i.e. 2-7-4-2-3 +). The official languages of the country are Swahili and English. However, Swahili language is also a national language and a medium of instruction in public primary schools. From secondary education to tertiary levels, the medium of instruction is English language. According to the National Bureau of Statistics (NBS) [Tanzania] and ICF Macro (2011), the country's literacy rates were 72 and 82 percents for women and men respectively.

### **1.4 Purpose, Objectives and Research Questions**

The main purpose of the current study was to investigate the challenges which children with visual impairments face in learning and participation in inclusive primary schools in Tanzania. Specifically, this study sought to achieve the following objectives:

- To examine how the learning environment affects children with visual impairments in inclusive schools
- To explore the social interaction of children with visual impairments in learning and participation in inclusive schools

In view of the above objectives, this study was guided by the following major research question:

- What are the challenges facing children with visual impairments in terms of learning and participation in inclusive primary school?

Sub-questions:

- How does the learning environment affect visually impaired children in inclusive primary school?
- How is the social interaction of the children with visual impairments in inclusive school?

## **1.5 Operationalization of the key Terms and Concepts**

For the sake of providing a common understanding across this study, below are the descriptions of the key terms and concepts as used in the context of this study.

### **1.5.1 Inclusion**

Inclusion involves increasing participation of children and young people in education and reduce their exclusion from the community (Booth, Ainscow, & Kingston, 2006). For the context of this study, inclusion refers to an approach which welcomes all learners with visual impairments in education settings to study together with their sighted peers and who have to be supported equally according to their needs.

### **1.5.2 Impairment and disability**

The terms impairment and disability are used interchangeably. Likewise in the context of this study they are used interchangeably. Impairments according to Webster & Roe (1998) “is defined as any loss of normal functioning, however small” (p.10). Disability is a result of impairments; it is social environmental barriers which limit the participation for a person with impairments. In the context of this study, impairment refers to a situation or loss of some body’s functioning that makes a learner to struggle to fully participate in the inclusive setting.

### **1.5.3 Visual impairments**

Visual impairment is divided into two categories: blindness and partially sighted. Webster & Roe (1998 ) postulated that an individual is considered blind in the education context, when there is “requirement for the non-visual means in order to access the curriculum”, they are Braille users (p.25). In the context of this study, blind refers to those learners who have limited light perception, even with magnified or optical devices they are unable to read print or enlarged font. Partially sighted is the low vision; these kinds of learners can learn by the use of aids and devices. In the context of this study, these two categories of visual impairments were applied.

### **1.5.4 Learning and participation**

Learning is the process which involves relatively permanent change of the behaviour. However in the education context, learning is the process of acquiring new knowledge, skills and attitudes.

Participation implies the context where learners are working together, playing and collaborating with each other (Booth *et al.*, 2006). In the context of this study, participation refers to the kind of the learning environment which considers more active collaboration of the visually impaired learners with their sighted peers and values them equally.

## **1.6 The Structure of the Thesis**

This study is divided into six chapters. The first chapter focuses on introduction, background of the study, statements of the problems, the country profile, purpose, objectives, research questions and operationalization of the key terms. Chapter two comprises theoretical perspectives and a review of other literature. The third chapter presents the methodologies employed in this study. Chapter four focuses on the presentation and analysis of the findings, while discussion is presented in Chapter five. Lastly, Chapter six presents the conclusions and recommendations.

## 2 THEORETICAL PERSPECTIVE

This chapter presents a review of relevant literature related to challenges which children with visual impairments face in learning and participation in inclusive primary schools. The presentation and discussion is focused on social cultural theory as a point of departure in the study. Furthermore, the notion of inclusive education is presented. Inclusion is seen as overcoming barriers to learning and participation. The learning environment for learners with visual impairments and the social environment for children with visual impairments are also presented. Lastly, empirical studies on inclusive education in a global context and in Tanzania are reviewed.

### 2.1 Social Cultural Theory

According to Kozulin (2003), Lev Vygotsky, “the founder of the social cultural theory, developed a new framework for conceptualizing educational dialogues, through which students acquire new modes of handling knowledge and solving problems” (p.246). Passing the child along the meaning that their culture assigns to objects and events and assisting them with the challenging task can promote their cognitive development (Vygotsky, 1978). Social cultural theory considers society and culture as the main source for the child’s development. The argument is that child development first occurs through the social interaction. Second, development occurs within the child himself/herself from the knowledge, skills and experiences he/she has acquired through social interaction in the environment surrounding him or her. The basic premise of Vygotsky’s theory is that all uniquely human’s higher forms of mental development starts from social and cultural contexts which are shared by members of that context because those mental processes are adaptive (Berk & Winsler, 1995).

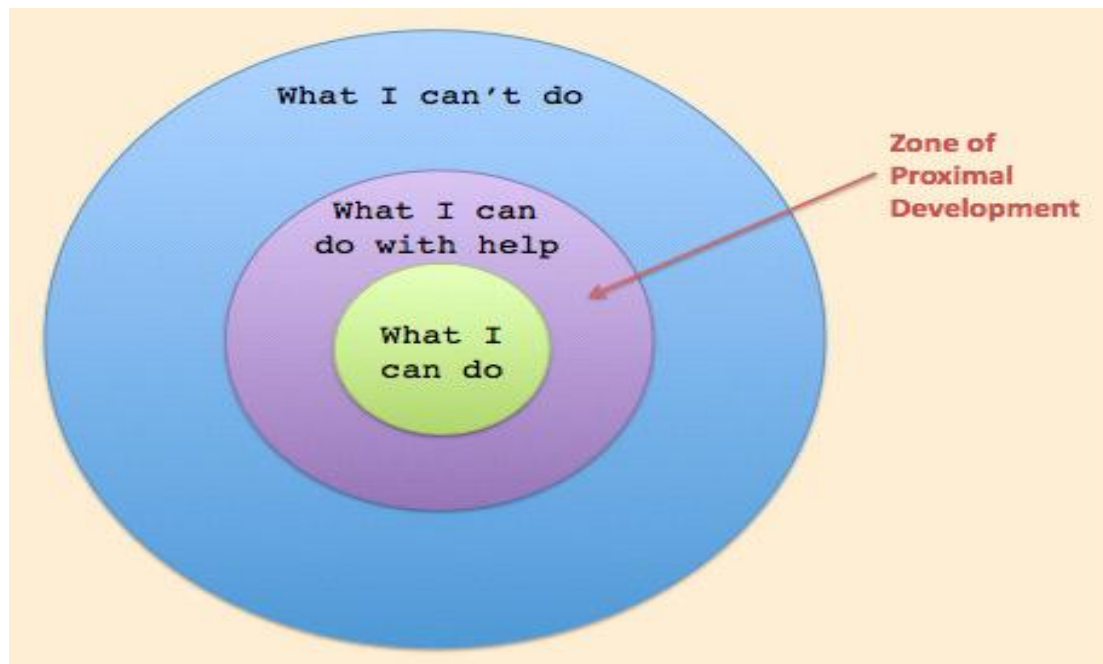
Furthermore, the acquisition of language and understanding is the initial stage in the development where action and sound give meaning. Through language, culture is transmitted. Hence, language and communication are central sign system (Bruner, 1990).

The next aspect of Vygotsky’s cognitive development is the **Zone of Proximal Development** (ZPD). According to Vygotsky (1978) ZPD is defined as the “distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration

with more capable peers” (p.86). Vygotsky further argued that a person cannot fully understand a child’s developmental levels without determining the upper boundary of that development. The upper boundary is determined by the kind of tasks that children can do with someone else’s assistance. In other words, two children might exhibit the same IQ score, supposedly indicating that they had achieved the same developmental level and thus are ready for instruction. However, one of them might as well be able to perform more complex tasks under someone’s guidance than the other could with the same assistance. Vygotsky referred to this difference between actual and potential IQ as the Zone of Proximal Development. He argued that some children might have a high IQ but a small ZPD and vice versa is true. On the other hand, in some cases, some children might have a high IQ and a large ZPD as well as low IQ and a small ZPD. Vygotsky’s major insight regarding the ZPD was that instruction and learning do not ride on the tail of development but instead blaze the trail for development to follow.

The Vygotsky’s ZPD describes how cognitive growth occurs in children, rather than considering a child’s potential in terms of a static measure such as an IQ2 score. Vygotsky felt that a developmental measure is needed to better assess children’s educative potentials. Thus, ZPD provides a conceptualization of how developmental potentials might be understood.

Since ZPD (Figure 1) was created with child development in mind, it also includes ‘adult guidance’. In relation to inclusive schools, the visually impaired learners need this kind of assistance from their teachers and their capable peers in learning and participating in their schooling because they do meet with different challenges in their school environments. Furthermore, teachers and sighted peers have to make sure that they do collaborate with visually impaired learners in learning and encouraging them to participate in extracurricular activities like playing and games. What a child can do today in collaboration with another, can also be done tomorrow independently (Vygotsky, Rieber, Carton, & Bruner, 1987).



**Figure 1: A model of the Zone of Proximal Development**

**Source:** Adapted from Smidt (2009)

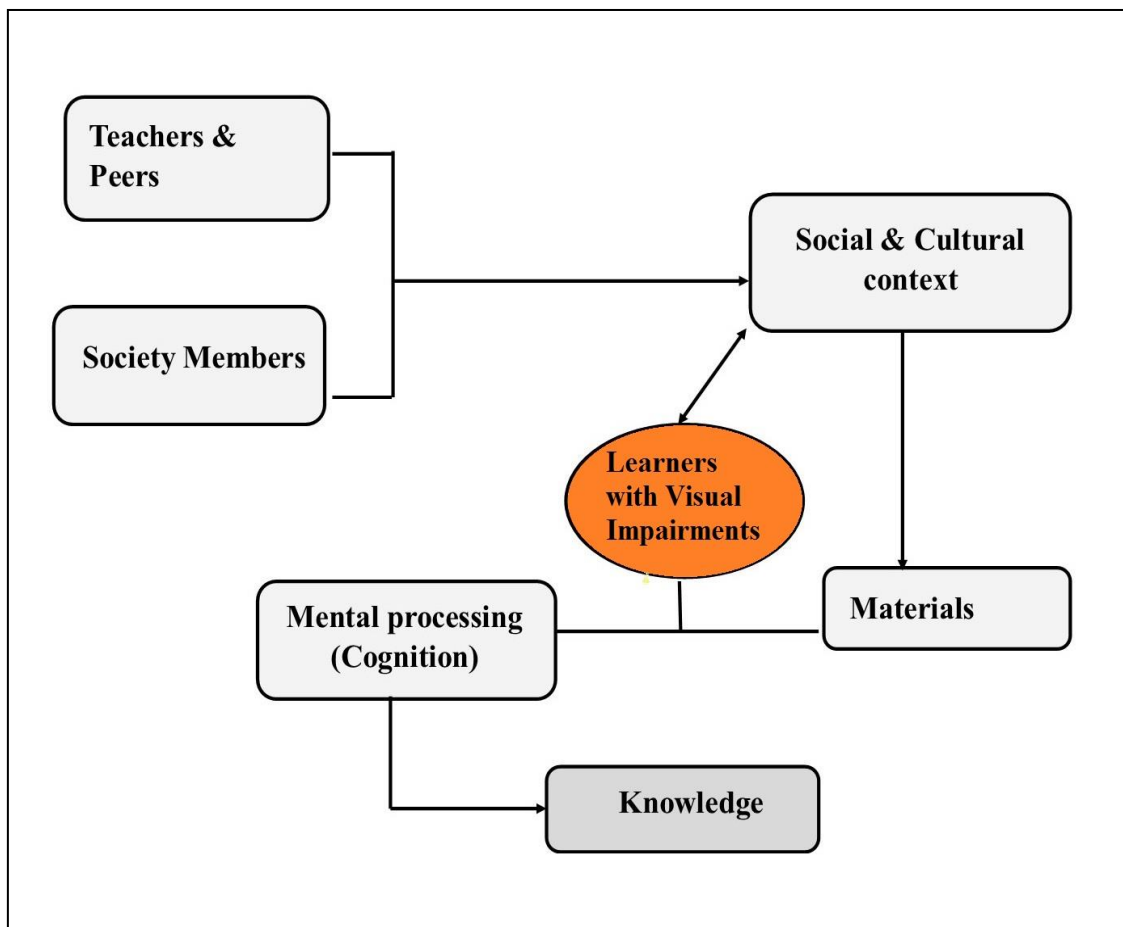
From Figure 1, the yellow colour represents the zone of achieved development (ZAD). The ZAD indicates that the child has mastered the mathematical concepts and can independently perform them without assistance. The purple area is referred to as the ZPD where learning can proceed with the assistance of an expert. This is an active learning zone. Whereas, the blue colour denotes the area in which even with the assistance of an expert, the child will not learn.

Another aspect of social cultural theory is **mediation**. According to Vygotsky, mediation refers to the part played by significant others in the learners' lives. Additionally, Vygotsky (1978) posits that the secret of effective learning lies in the nature of the social interaction, that is, between two or more people with different levels of skills and knowledge. This involves helping learners to move into and through the next layer of knowledge or understanding. Likewise, Feuerstein and Feuerstein (1991) postulated that human mediation is an attempt of the adult to adjust the setting and adapt it in the way that will be favourable to the learners (as cited in Mbukwa, 2009). With regards to inclusive education, learning environments also need modifications to enable learners with visual impairments feel comfortable. Vygotsky's theory postulates that for the child to develop higher mental processes, he/she should interact with the environment (Kozulin, 2003). Mediation is also deemed important to children with visual impairments because they need adaptive environment. Taking this course of thinking, Berk and Winsler (1995) argue that the main

activities of the child in the class according to Vygotsky's view are to interact with the materials written either by the author or by the fellow peers in the class.

Furthermore, **guided participation** refers to the process by which children actively acquire new skills and problem-solving capabilities through their participation in meaningful activities alongside parents, adults, or other more experienced companions. Guided participation emphasizes the active role of the child in learning and cognitive growth and the complementary role of parents and other caring adults in supporting, assisting, and guiding the child's intellectual development. Support includes both explicit verbal and non-verbal guidance as well as more subtle direction through the arrangement and organization of children's interactions with the environment.

Guided participation occurs throughout the course of childhood as children progress from a peripheral and dependent role to the increased autonomy and responsibility while striving to master the challenges posed by the surrounding social and cultural milieu (Rogoff, 1990). The term guided participation was introduced by the neo-Vygotskian, Barbara Rogoff, in her book *Apprenticeship in thinking* (ibid) to clarify the nature of children's cognitive development within the framework of socio-cultural theory. Vygotsky claimed that the ability to engage in higher mental functions (which is the distinguishing feature of human psychology) is rooted in social interaction. Thinking emerges from early social interactions in which the child works with others to solve problems. To insure children's success, more experienced partners direct their assistance to the child's *zone of proximal development* or potential development. The idea of guidance and participation applies to the learners with visual impairments because they are first and foremost individual children just like other children, therefore they also belong to a group where guidance and participation are needed (Mbukwa, 2009). Through guidance and cooperation from teachers and sighted peers, the visually impaired learners would actively participate in the learning process. The social cultural theory is diagrammatically presented in Figure 2 to show how the social cultural context is essential for the learners with visual impairments' development in learning. That is, through interaction with capable members of the society and materials, the child can actively participate in learning.



**Figure 2: Vygotskian social cultural model**

**Source:** Adapted from Vygotsky (1978) and modified by the investigator

## 2.2 Inclusive Education

The vision of inclusive education (IE) can be traced back from the World Declaration for All which was adopted in Jomtien, Thailand in 1990s. The IE was described as:

“...universalizing access to education for all children, youth and adults, and promoting equity. This means, being proactive in identifying the barriers that may be encountered in accessing educational opportunities and identifying the resources needed to overcome those barriers” (UNESCO, 2009, p.8.).

According to the Salamanca statement, which was a result of the Frame Work for Action on Special Needs Education, inclusive education is described as a process for education for all through respect and provision of education for children, youth and adults with special needs



within the regular education system according to their needs and difficulties (UNESCO, 1994). The fundamental principle of inclusive education is that all learners should learn together in the same school regardless of the differences or difficulties they may have. The Salamanca statement calls upon the states to develop inclusive schools that include those who have serious disadvantages and disabilities. The benefit of such schools is not only the provision of quality education but also their establishment is a step towards changing the biased attitudes, creating friendly communities and developing inclusive society (UNESCO, 1994). Also, inclusive education can be described as a process of increasing the capability of the education system to reach out to all learners. Indeed, IE is an approach to accomplish EFA strategy (UNESCO, 2009). EFA aims at the provision of education for all at every stage of the human development (from childhood to adulthood). That is, education should meet the basic learning needs as everybody has right to education.

However, to review the development and setting a new international strategy to accomplish education for all (EFA), the Dakar Framework for Action, was held in 2000. It emphasized more on the increase and improvement of the early childhood care and education, particularly for the most vulnerable and disadvantaged children. It states that the 'heart of Education' for all lies at the country level. It also intends to ensure that by 2015 all learners, particularly girls, children in complicated circumstances, those belonging to ethnic minorities and those with special learning needs, have access and complete, free and compulsory primary education of good quality (UNESCO, 2009). It also aims at ensuring that the learning needs of all young people and adult are met as well as improving all aspects of the quality of education. It further aims to ensure excellence of all so that accepted and assessable learning outcomes are achieved by all, particularly in literacy, numeracy, and essential life skills.

Furthermore, according to Booth *et al.* (2006), inclusive education is an endless process which involves individuals with full participation in education setting. This implies the participation of all learners in education context and reducing all forms of segregation. In addition, the increase of the participation for everybody implies the developing of education systems and settings that value everyone equally (*ibid.*).

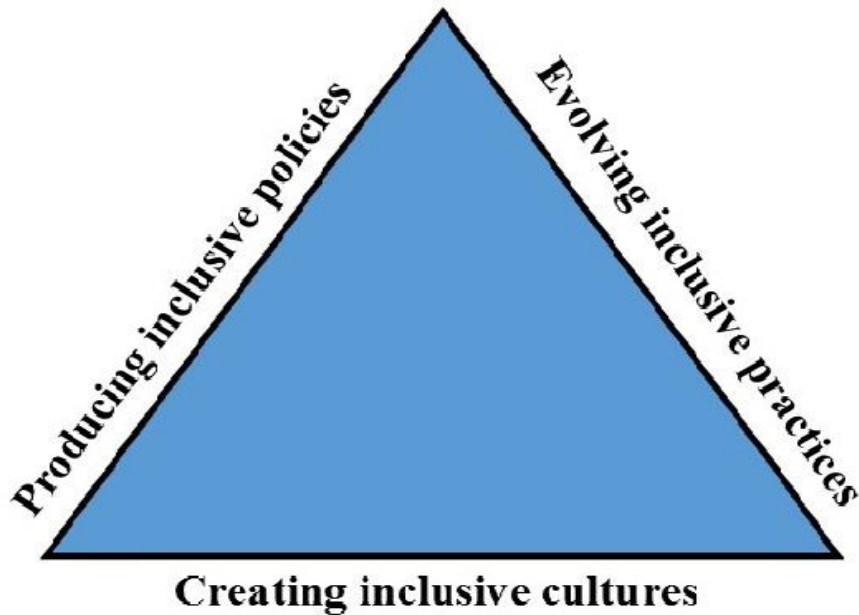
Moreover, IE is about welcoming everyone in the system, helping them to build their consciousness, as well as raising their ability together (Senge, 2000). Inclusion insists that all teachers and peers should not discriminate learners with visual impairments or other forms of

disabilities (Igune, 2009). In addition, inclusive education encourages both teachers and learners to feel comfortable with the diversity and to see it as a challenge and improvement in their learning context rather than a difficulty (UNESCO, 2003). Generally, inclusive education involves provision of quality education for the individual learners through creating a welcoming community for all learners regardless of their individual's differences in learning process.

## **2.3 Inclusion as Overcoming Barriers to Learning and Participation**

Learning and participation can be affected if the learners come across different barriers in the learning environment. According to Booth, Ainscow, Black-Hawkins, Vaughan, and Shaw (2002) “barriers to learning and participation provide an alternative to the concept of special educational needs” (p.4). This implies all necessary efforts which can be made in order to meet the needs of the individual learner. A child can face barriers to learning and participation in school, the community surrounding the school, through interaction and in classroom, in their teaching and learning process (ibid). In line with this, barriers to learning and participation can be encountered by the child through interacting with the learning environment.

By the way, barriers to learning and participation can be reduced through mobilization of the resources available within the school setting and the surrounding communities as well (Booth *et al.*, 2006). This is to say that through good relationships, if communities within the school (students, teachers, and parents/caregivers) work together as a team, they can manage to overcome barriers to learning and participation. This can lead to the development of inclusive schools which can be viewed into three dimensions as shown in Figure 3. The dimensions include: Firstly, *culture* which implies to the relationship, assumed beliefs and values; secondly, *policies*, this is all about how the school is organized and planned to make changes; and lastly *practices* which implies what is taught and learned by the learners and how they learn and are taught (ibid)



**Figure 3: Three dimensions for the development of inclusion in school**

**Source:** Adapted from Booth *et al.* (2002, p.7)

Generally, inclusive education is an endless process as it is still on the move. With regards to learners with visual impairments, they should be seen first as individual children. Parallel to that, in support of the social cultural theory, which considers learning environment to be multiple settings, the need for interaction and communication between learners and teachers as well as interaction among learners themselves should be emphasized.

## **2.4 Visual Impairments and Learning and Participation**

Learning means the active interaction between the learner and his/her environment and the curricula (formal, informal, and hidden). It is all about the value of learning experience within education programs in relation to the child's needs, objectives, interests and skills (MoEVT, 2009). Participation is an active involvement in the whole process of education that is building an educational community where all learners are welcomed and feel safe, as they are respected, valued and their individual needs are met (MoEVT, 2009).

Lave and Wenger (1991) viewed learning and participation as interrelated concepts, though Vygotsky separated these processes when he talked about inter-psychological and intra-psychological processes. Furthermore, Booth, (2011) elucidated that participation should be

treated as the “active process of engagement in learning” (p.22). In this study, both learning and participation are closely linked due to the fact that this study did not look for the learning outcomes, the intention was to identify the aspects of learning.

On the other hand, visual impairment can be defined as a significant loss of vision which requires a person to use optical devices. Legally, a person is termed to be blind if his/her visual acuity is or less than 20/200 vision. This implies that, the blind person can see the object at 20 feet while the sighted person can see the same object at 200 feet. A person who is blind normally depends on Braille in reading and writing. Likewise, a person with low vision has a visual acuity of 20/70 or less which implies that he/she can see the object at 20 feet while the sighted one can see it at 70 feet (Susan *et al.*, 2003).

The causes of visual impairments can be classified as congenital or adventitious. Some of the congenital impairments are prematurity, genetic disease, prenatal and perinatal infections, whereas adventitious causes refer to the loss of vision acquired after birth as a result of illness or accidents (Susan *et al.*, 2003). Due to loss of vision, learners with visual impairments then, depend on auditory and tactile information in the learning process.

Visual impairment can cause problems to learning as well as to participation. Sometimes, learners with visual impairments have fewer natural experiences because they cannot observe objects and interact with them (*ibid*). Learners of this type normally face difficulty in visual functioning, ability in perception, difficult in acquiring concepts, reduced social interactions, life skills, orientation and mobility skills, and academic development. When the child is visually affected, there is a decrease of the information that helps in understanding how the world is and how it can be acted upon (Webster & Roe, 1998). In line with Webster and Roe’s argument, through orientation and mobility, a teacher is supposed to teach these learners how to move safely in their surrounding environments, teach them their body images, and arranging the classrooms in a way that allow them to walk around freely. Gindis (1999) added that “teacher must deal not so much with these biological factors by themselves, but rather with their social consequences” (p.3). Also they should be provided with aids like white canes as well as making the school’s physical environment supportive. Parallel to that, a loss of vision may influence the learning process negatively due to the fact that the degree of the adjustment and modification is affected (Palmer, 2005). Psychological, emotional and educational supports are needed so that they can learn and participate in inclusive primary

schools as their performance rate may be interfered. Though their performance may be slow due to the interference, still these learners can perform very well academically just like their peer sighted learners since they depend much on their memory for learning and walking around (Landsberg, 2005).

## **2.5 Learning Environment for Learners with Visual Impairments**

All children, particularly children with VI, can be influenced by the environmental factors: lighting, listening conditions, decorations and arrangements of the rooms (Webster & Roe, 1998). In order for learning to take place, a good and caring learning environment is very important in inclusive schools. The learning environment is the physical setting where learning is taking place. An inclusive learning environment is an environment which welcomes all learners, giving them time and space to learn. In this study, the investigator considered the meaning of learning given by Peterson and Hittie (2010); they clarify learning environment as including three aspects: (i) The school building and ground (ii) The classroom, and (iii) The community surrounding the school. However, the third aspect (the community surrounding the school) is not considered here, but has been processed in section on social environment for visually impaired children.

*The school building and the ground:* learners with visual impairments do face different challenges when walking around the school building. In inclusive schools, the building and play grounds should consider the needs of each individual learner. For example, staircases, toilets, clear pathways, and clear building signs should support learners with disabilities, particularly visually impaired ones. Also, it is very important to assess every room used by learners with visual impairments for the potential hazards as well as familiarizing the students with the school surroundings as soon as possible (Susan *et al.*, 2003).

*The inclusive classrooms* are supposed to be big with enough spaces to accommodate all learners. According to Webster and Roe (1998), adaptation of listening environment, well arranged classes and the use of different strategies allow learners with visual impairments to learn softly. Also, learners with VI (those with low vision) should be placed in front of the class so that they are close to the teacher and the chalk board. They should have enough learning materials such as Braille text books, Braille writers, Perkins Braille machines,

computers, talking calculators and talking books. Palmer (2005) stressed that the adjustment in teaching strategies, learning materials and other assistive devices, and good classroom management are necessary. This can be connected to Universal Design for Learning (UDL) which is a set of principles and techniques used by a teacher in the classroom, at the same time being creative in designing instructional materials (Courey, Tappe, Siker, & LePage, 2013). This implies that the environment which accommodates all learners regardless of their individual differences is very important. The environment should be designed in such a way that it allows all learners to participate in learning processes through different activities with a flexible curriculum which caters for learners with different backgrounds, cultures, learning needs and abilities.

Based on three principles of the UDL, which are: Representation, action and expression, and engagement, a teacher can plan for a lesson that meets the needs of all learners in inclusive classroom (Courey *et al.*, 2013). *Representation* in this context implies a multiple representation of the same concept in different ways to meet the needs of diverse learners. For example, the lesson for the learners with VI can be presented through verbal description, audio text and touching. UDL recommends that provision of multiple ways of representing the lesson helps deeper understanding of the concept as well as enabling more learners to participate in the lesson (Mcguire, Scott, & Shaw, 2006).

However, *Action and expression* in this context refers to the alternative ways of communication strategy used by learners to express their learning, these are such as; presentation in the class by the learners, storytelling and other techniques. And *engagement* refers to the ways through which teachers can motivate learners' interest to get involved in learning through being creative, hands on, and the like (Courey *et al.*, 2013).

## **2.6 Social Environment for Children with Visual Impairments**

To make progress in the learning and participation process, social interaction is very important to all learners regardless of their differences. Through interaction, learners with visual impairments can learn different appropriate common behaviours such as; collaborating with their peers, sharing and communication skills. Lampton, Graves, and Ward (2012) pointed out that children with special needs, particularly children with visual impairments

cannot only learn appropriate behaviours through social interaction with their peers, but also learn academically in their school settings. Therefore, it is very important to provide visually impaired child with the opportunity to engage together with their peers sighted in different academic activities, for instance, engaging them in group discussion, storytelling, presentation and others activities. They should be encouraged to play together with their fellow sighted learners, and praised whenever they show efforts to do things. Such efforts can help them to make friends which can help them to develop social skills. This reflects mediation as described by Vygotsky (1978) whereby social interaction helps in enhancing effective learning.

In addition, social interaction in learning helps children in school community to gain knowledge and skills from each other (Lamport, Graves & Ward, 2012). In line with this, the *community surrounding* the school is also very essential in the social environment for visually impaired children. The community surrounding the school includes teachers, learners, parents, caregivers, and school personnel. All these people are supposed to support learners with visual impairments. However, the highly qualified support given helps learners with VI to have good access to the school curriculum (Palmer, 2005).

Furthermore, the community as whole is also responsible in helping children to understand the world they live in, through offering them different information about the environment surrounding them. A good cooperation is needed from the whole community surrounding the school to help children with VI to explore their learning environments. In addition, Booth *et al.* (2002) elucidates that when staff, children and the families collaborate together they can manage to remove the school barriers in learning and participation. Respectively, what adults help children to accomplish collaboratively prepares the child to do things independently in the coming future (Webster & Roe, 1998).

## **2.7 Empirical Studies on Inclusive Education in a Global Context**

Inclusive education is somehow still a new educational strategy worldwide. Even though its evolution has taken place rapidly in the developed countries, still it is a challenging education strategy in the developing countries. However, the challenges differ in types and degree depending on the nature of society and levels of economic, social, political and technological

development. On the other hand, it has been realised that inclusive education has a positive impact on learners with disabilities, especially those with VI. For instance, Zwald (2008) carried a study in United States of America (USA) about the perception of itinerant teachers on the importance of physical activity for the students with VI and its effects on academic success and social relationship. The study revealed that, a physical activity of a learner with visual impairment is very important, as its lack can cause challenges to learning and participation in academic activities and even to social relationship. Another study by Javakshishvili (2012) tried to describing teachers' practice in social inclusion in Georgian schools. The finding revealed that the term inclusive education was the concept which the teachers were not familiar with. It was further revealed that the concept social inclusion was not well understood.

Likewise, (Zulch, 2010) conducted a study in Namibia to explore and describe how the learners with visual impairments are included in a Namibian mainstream school. The findings showed that learners with visual impairments were only included physically and not education wise. The study further indicated that there was a lack of teaching materials, and the physical environment and school grounds were not really supporting the children with visual impairments. There was a lack of support and training for the teachers, no cooperation between teachers and parents and the community as well. Furthermore, the findings revealed that there were teachers and sighted learners who still had negative attitudes towards learners with visual impairments. Lastly, there was no clear policy on how to practice inclusive education. Along with that, Igune (2009) also conducted a study which investigated teachers' opinions about including children who are blind; the factors which may influence their opinion and what they thought could have been done to improve the situation. The findings revealed that teachers believed that visually impaired learners needed help so that they could participate in school activities.

On the other hand, Najjingo (2009) conducted a study about the challenges of accessing all inclusive education services by children with disabilities (CWDs).The findings showed that social-cultural factors like teachers' and peers' negative attitudes , overcrowded classrooms (ratio: learners-teachers: 100:1), poverty in the household, unfavourable policy environments, and unsatisfying stakeholders' participation in the formulation of the policies were still a problem for learners with disabilities. The study by Zimba (2011) about managing inclusive schools in Swaziland also revealed that lack of qualified teachers, poor infrastructures, lack of



knowledge of inclusion towards learners and parents were still a problem to inclusive education.

## **2.8 Empirical Studies on Inclusive Education in Tanzania**

It is a fact that inclusive education is a recent notion in most of the developing countries, Tanzania included, and that little research activities have been conducted in the area. There are very few studies about inclusive education, specifically at primary schools level in the country. For instance, some of the available studies include the one conducted by Mwakyeja (2013). This study investigated the way general teachers teach students with visual impairments in inclusive classrooms and the challenges facing them in secondary schools. The findings revealed that there was little knowledge about inclusive education among general teachers. In addition, the knowledge about inclusion and teaching in inclusive classrooms was highly needed by the general teachers, as there seemed to be a need for the preparation of the teaching resources and instructing students with visual impairments about the proper ways of using their visual devices. Findings further showed that the general teachers were not using the little knowledge they had on teaching inclusive classrooms due to challenges like lack of commitment among them, lack of the resources and a rigid curriculum.

Another study was carried out by Ngonyani (2010). The study aimed to examine how teachers facilitate learning for learners with disabilities in inclusive classrooms. The findings revealed that the majority of respondents had good facilitation skills. Likewise, Kayombo (2010) studied teachers' competency in handling learners with disabilities in inclusive primary schools in Tanzania. The findings showed that methods and strategies employed by teachers in inclusive classrooms were inappropriate. For instance, questions and answers, and lecture methods were the most teaching and learning methods used by the teachers. The study further indicated that the training received by the student teachers in teacher education colleges were inadequate to make them properly handle the inclusive classrooms. Moreover, the findings showed that there were positive attitudes among the respondents towards inclusive education at primary school level. The majority of the respondents were in agreement that inclusive education was the best way of meeting the needs of all learners at primary school level.

Again Nydal (2008) conducted a study to investigate the development of the inclusive education in Tanzanian Primary schools. The findings revealed that there were several schools

that were practicing inclusive education, but the challenges to the development of inclusive education in Tanzanian primary were huge.

## **2.9 Knowledge Gap**

Based on the literature review, many studies have focused more on investigating different perceptions and views of principal, teachers, parents, care givers and government officials towards inclusion, forgetting the voice of learners with visual impairments who are among of the affected ones in the inclusive classrooms. As it is shown above, none of the reviewed studies had focused directly on learners with visual impairments for the sake of seeking their views, perception and experiences on the challenges they face in learning and participation in inclusive school. Furthermore, tracing the context where the current study was conducted, very few empirical studies on inclusive education at the primary school level in Tanzania have been conducted. Thus in order to cover the existing knowledge gap, it was very important for the current study to explore the life experiences and views of learners with visual impairments towards challenges they face in learning and participation in inclusive primary schools in Tanzania.

## **3 RESEARCH METHODOLOGY**

This chapter describes and presents the research approach and design, Philosophy underpinning the study, location of the study, Target population, Sample and sampling procedures, Sample size and data collection instruments. It also covers other aspects such as reliability and validity of the study, data analysis and presentation, ethical considerations, and lastly limitation and delimitation of the study.

### **3.1 Research Approach and Design**

In order to gain a deep understanding about challenges faced by learners with visual impairments in learning and participation in inclusive primary schools, a qualitative research approach was employed. According to Denzin and Lincoln (1994), qualitative research involves studying “things in their natural setting, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them” (p.2). This approach was considered important in this study because it helped the investigator to study deeper the challenges faced by visual impairments in learning and participation in their inclusive primary schools. It also enabled the investigator to have a true representation of the life events among the studied learners with visual impairments (Yin, 2011). Furthermore, since learners with visual impairments are among the vulnerable groups who still face a lot of challenges in inclusive schools, a qualitative approach was important in order to represent their voices as it enabled them to yield robust information based on their perspectives and their experiences. Ragin and Amoroso (2011) emphasise that in empirical study, the qualitative approach is well suited for the difficult task of representing groups out-side the mainstream setting.

On the other hand, a case study research design was deemed appropriate in this study. As the name itself suggests, a case study implies the study of the case which can be anything. For instance, a case can be an individual person, institution such as schools, hospitals and others like (Robson, 2007). Based on the nature of this study, case study was employed in order to intensively explore on what was going on in the real life events and their relationships (Cohen, Manion, Morrison, & Bell, 2011). According to Yin (2009), a case study method allows deep explorations and meaningful understanding of the real life events: for example, personal life cycles and small group behavior. Thus it helped the investigator to explore in details the challenges faced by children with visual impairments in learning and participation

in inclusive primary schools. Also it is very important since it is mostly based on specific things at a specific point in a time (Robson, 2007).

### **3.2 Philosophy Underpinning the Study**

In order to make an interpretation and gain a deep understanding about the challenges faced by learners with visual impairments in terms of learning and participation in inclusive primary school, hermeneutics was deemed important in this study. According to Merriam (2009), hermeneutics is an approach which correlates to the study of the written text. Bryman (2008) also pointed out that hermeneutics “is an approach that was originally devised in relation to the understanding or interpretation of texts and theological texts in particular” (p.532). In such context, hermeneutics is also concerned with the life experiences of the people within their given environment. Such environments may include social phenomena, culture, historical context and the like. The use of a hermeneutics approach in this study; helped the investigator to gain more understanding on how learners with visual impairments, sighted peers and teachers perceive experience and view the challenges facing the learners in inclusive schools.

Hermeneutics have different core concepts which affect the understanding and interpretation of the content. In this study pre-understanding, dialogue, meaning and interpretation were the concepts deemed important.

*Pre – understanding:* It is a very important and appropriate concept in this study. This is the meaning which exists in the world before we integrate with the historical background. Through pre- understanding, there is a way to reach understanding.

*Dialogue:* Through pre-understandings in relation to the text, the investigator asks questions and tries to listen to it in the dialogue form. However, these questions are developed during the processes (Alvesson & Sköldbberg, 2009). Therefore, the dialogue takes the investigator through the meaning and understanding.

*Meaning:* The meaning is received by building the world through the experiences we have and our background.

*Interpretation:* This is influenced by pre-understanding of the individual’s background, social, historical background and culture.

These concepts therefore, guided the investigator's understanding through analysis and interpretations which made the investigator gained more knowledge about how the participants in the study perceived their learning environment and social interaction in their natural settings.

### **3.3 Location of the Study**

This study was carried out in the United Republic of Tanzania. The study was conducted in one of the regions in the eastern part of the country. The region was purposively selected for some reasons including, first the familiarity that the investigator had with the region that made travelling and research logistics possible and easy; and secondly, the region has many primary schools with both urban and rural characteristics compared to other regions. From this region, one of the municipalities was chosen purposively. From that municipality X primary school was further selected purposively based on the fact that it is among the public schools in the municipality which is practicing inclusive education. X primary school receives children with different disabilities (including visual impairments) from various regions in the country. Other types accommodated are deaf blind, mental retardation and multiple disabilities. The children without disabilities are day scholars as they are all from within the locality, while those with disabilities are accommodated in the hostel which is within the school compounds. Considering the nature of that school, the investigator was able to meet learners with visual impairments from various social, cultural and economic backgrounds, thus the data obtained answered the research questions and objectives. Currently, X school has got about 500 learners from grade one to seven, of which about 75 learners have got visual impairments. The school had around 50 teachers at the time this research was being conducted; among them about 15 were teachers with training in special education.

### **3.4 Target Population**

The target population of this study included teachers and all primary school learners with and without visual impairments.

### **3.5 Sample and Sampling Procedures**

According to Ragin and Amoroso (2011), when a representative set of cases from a much larger set is selected for the study, the process is termed sampling. In this study, purposive sampling was used to select learners with visual impairments, teachers and sighted learners to

participate in the study. Purposive sampling was useful since the goal of this research was to describe the problem (Dawson, 2002). The selection of respondents from each category was based on some criteria as follows:

Firstly, for learners with visual impairments, the investigator included those who had been in inclusive classrooms for not less than 3 years, and who had the ability to express themselves. The assumption was that being in school for more than three years would have made them familiar with the challenges facing them in learning and participation due to their experience in the inclusive classrooms. The age was another criterion. Those with ages ranging from 9 to 17 years old were targeted since they were considered somehow mature enough to express themselves clearly.

Secondly, for teachers, those teaching inclusive classroom were preferred because they were the ones dealing with learners in classroom situations. So their participation was deemed very important. Additionally, the participation of the teachers in the study was considered important due to the fact that the learners were still minor, so were unable to express themselves clearly-so ethic wise they were deemed to be under guidance of their teachers. On top of that, teachers were selected to participate in the study assuming that they had rich and lived experience with learners with visual impairments, so they could provide rich data to answer the research objectives.

Lastly, the selection of sighted learners considered those who were in inclusive classes which accommodated learners with visual impairments for duration of not less than three years. And whose ages ranged from 9 to 14 years old. These sighted learners were also included in the study for the sake of check and balance of the information that were to be collected (triangulation of the respondents). So they helped to provide the relevant information concerning the study.

### **3.5.1 Sample Size**

According to Punch (2009), all researchers, including the one conducting qualitative research have to involve sampling. This is to say that, it is difficult to study the entire population as well as everything happening in the field. Dawson (2002) added that if it is not manageable to contact each one in the study population, the researcher has to select a number of people to make contact with. Based on such line of argument, this study was conducted among learners

from grade 3 to 7. From each grade 3 children with visual impairments and 2 with sighted were chosen from each grade. Thus 15 learners with visual impairments and 10 children with normal sight were included in the study. Apart from the learners 6 teachers were selected (3 special needs teachers and 3 general teachers, where one of the teachers was blind). Thus the sample size comprised 31 respondents.

## **3.6 Data Collection Instruments**

The task of data collection begins at once after a research problem and research design has been clear (Kothari, 2004). In this study, interview and observation methods of data collection were used.

### **3.6.1 Interview**

One of the applicable means of data collection in case study design is interview (Yin, 2009). According to Kvale (2007) research interview takes place when knowledge is constructed through interaction between two or more people, that is, between the researcher and the respondent(s). Through conversation with people, the researcher understands their life experiences and the world around them (ibid). That being the case, interview was deemed important in the study because conversation between the investigator and respondents created a room for respondents to speak out and express their feelings, beliefs, opinions, experiences and attitudes concerning the research problem. Since the interview was conducted face - to - face, the respondents were able to tell the interviewer a lot of information. It also helped in managing the information provided by the respondents through probing questions.

Specifically, to gain detailed information about the challenges faced by learners with visual impairments in learning and participation in inclusive schools, the investigator used semi-structured interview. Semi-structured interview included both structured and unstructured sections with standardized and open type questions (Walliman, 2011). Semi-structured interview (Appendices A-C) was considered important because the investigator sought for the descriptions of the respondents' life experiences with respect to interpretation of the meanings of the described phenomena (Kvale, 2007).

The interviews were carried out with 15 learners with visual impairments, 6 teachers and 10 sighted learners. The interview guides were constructed from the 2 sub-research questions as

presented in chapter one. The interviews with the learners took place in the class and with teachers in their staff room. The duration of the interview for every participant ranged 40 to 50minutes. The procedure for keeping the information involved note taking by the investigator as well as electronic voice recording. Since the most and widely spoken language in the country is Swahili, it was inevitable for the investigator to translate the interview questions from English to Swahili in order to ease communication, given the fact that at primary schools level, Swahili language is the only medium of instruction as well as the official language.

However, even though the interview method was the most powerful tool that enabled the investigator to collect a robust set of data, one of its disadvantages was that it was a time consuming (Bell, 2005). In response to this, the investigator involved closed ended and open ended questions which were clear and easily understood and which allowed the interviewee to express their views and experiences without consuming a lot of time.

### **3.6.2 Observation**

Observation is the type of data collection where the researcher is involved in direct examination of the on-going behaviour. For the investigator to examine the real situation about the challenges facing children with visual impairments in learning and participation in an inclusive setting, observation was chosen because it was useful in discovering whether members of school community were doing what they were supposed to do or behave in ways that were appropriate for the inclusive practices (Bell, 2005).

This study employed a non-participant observation. This is a kind of observation whereby; the investigator makes observation without actively participating in what is going on in the field. This implies that observer is present but is not involved in what is going on in the field (Walliman, 2006). Non - participant observation was preferred because it consumes less time.

In order to obtain the firsthand information, the investigator physically conducted observation within the inclusive classes and within the inclusive school's compound. A total of 10 lessons were observed. Each observation took a maximum of 45 minutes. The observation was guided by the observation schedule which was prepared in advance (Appendix D). The observation was used to elicit data on the suitability of the infrastructures, availability of the study materials, and participation of the children with visual impairments in various academic and



extracurricular activities. To insure the accuracy of the recording, the investigator used note taking. The strength of the observational methods was that it helped the investigator to acquire first-hand information from the original source as behaviours were recorded as they were happening in the natural environment. The method also provided accurate and reliable data which helped in strengthening the validity of the study.

### **3.7 Reliability and Validity of the Study**

Reliability is the ‘consistency’ of the study result (Punch, 2009). It is the extent to which other investigators at different times and places can reach the same result, using the same case and the same procedures used by the first investigator. To ensure the reliability in the study, the investigator repeated different procedures during the analysis of the data, for instance re-reading of the transcripts. Also the investigator made multiple transcriptions of the data. Repetition of different procedures helped in the categorization of the data. Yin (2009) points out that the best way of ensuring the reliability of the study; is to do again different steps as if there is someone following behind you. In addition, to ensure the accuracy of the data, the investigator carried out a pilot study in one of the schools in a different district in the region, with the main purpose of pre-testing the tools of data collection and assurance of research questions. The pilot study helped the researcher to make advancement on data collection instruments and to have a summary of what was important in the study (Bell, 2005).

However, validity is the extent to which a data collecting instrument measures what it is supposed to measure (Punch, 2009). In qualitative research, validity is the process of making justifications for the study (Jidamva, 2012). In simple terms, validity can be defined as the accuracy for the data. According to Yin (2009) there are three types of validity. The first type is *construct validity*; this is where the researcher develops correctly the operationalization of the concept aimed to be studied. The second type is *internal validity*, this is based on explanatory comments, where the researcher gives fundamental relationship between the variables of the study. The third type of validity is *external validity*; this is the degree to which the study can give similar results for different investigators if they used the same procedures for the data collection.

To ensure the validity of the study, the investigator triangulated instruments of data collection, for which interview was used along with the observation method. The triangulation of

instruments means the application of more than one method of data collection to ensure richness of the findings (Bell, 2005). This helped in strengthening the validity of the study as the investigator managed to observe similar findings in different perspectives. Furthermore, the triangulation method also helped to solve the problem of construct validity. The use of more than one method provided several solutions to the same study (Yin, 2009). In addition to that triangulation of the sample was also considered, where different respondents (Learners with visual impairments, sighted peers and teachers) were interviewed to obtain their perspectives on the issues under investigation. Furthermore, secondary sources were also consulted. Lastly, the pilot study helped the investigator to refine the question items, which made them able to tape the expected data.

### **3.8 Data Analysis and Presentation**

According to Kothari (2004), “analysis refers to the computation of certain measures along with searching for patterns of relationship that exist among data-groups” (p.122). Data analysis therefore, is a process of breaking your data down into a meaningful form. As the study progresses, for qualitative data, the researcher might analyse the data, frequently refining and reorganising it in the light of the emerging results (Dawson, 2002). Correspondingly, data analysis was going on in this study from the beginning of the data collection (Merriam, 2009). Almost, immediately after the data collection started, the researcher was taking ‘notes’ which helped her to remain focused in the study and remind the essential issues which were arising (Dawson, 2002).

In order to maintain a good analysis of the data, the data was transcribed and translated. Since the interview was conducted in the national language (Swahili), data was transcribed through listening to the audio tape recorder and was translated from Swahili to English. Data translation was a big job, but the investigator tried hard to be fair to the respondents. For example, reproducing the original language tone was done, as a result, the investigator made sure that the language of the respondents was maintained. To transcribe means to ‘change from one form to another;’ that is, from spoken dialogue to a written form (Kvale & Brinkmann, 2009).

Afterwards, thematic analysis was applied. Braun and Clarke (2006) argued that thematic analysis is a contextualised method in data analysis which sits between the essentialist and

social constructionist. In this study, data has been presented qualitatively basing on the themes which were posed before the field according to the theoretical perspectives and research questions. However, during the field work another unpre-determined theme emerged and has also been included in the analysis. Through checking interview and observation responses, various categories emerged and were grouped into themes in relation to the theoretical perspective, research questions as well as the theme which emerged from the field. However, some data are presented in the form of direct quotes to hair the voices of the respondents.

### **3.9 Ethical Consideration**

The ethical issues were very important in this study as learners with VI are referred to as vulnerable children. However, Bell (2005) added that:

“in any size of the research activity, the researcher may still have a responsibility to explain to respondents as fully as possible what the research is about, why he/she wishes..., what will be involved and what will be done with the information provided” (p.156).

To ensure the ethical issue in the study, first and foremost, the investigator sought research clearance from the Norwegian Social Science Data Service (NSD) to permit the investigator to commence data collection; permission was given (Appendix E). Since the study was to take place in Tanzania, the investigator also sought permission from relevant authorities including the Regional Education Office (REO) and Municipal Council (Appendices G and H). Afterwards, the investigator was referred to the selected primary school where the study took place. The school authority and parents of the children were consulted (Appendix I and J) and the investigator was allowed to proceed with data collection. Upon meeting with the respondents, the investigator explained clearly the research purpose and objectives. It was clearly explained that respondents were to remain anonymous and the data provided were to be treated and kept confidential. The investigator also made it clear that any respondent had the right to retreat from participating in the study. Furthermore, every respondent was asked to freely sign a form of informed consent (Appendix K) which was kept securely by the investigator. Lastly, since the research involved primary school children who are legally minors, the guidance of their teachers was sought. Creswell (2009) emphasizes on confidentiality and anonymity in study. In the present study, the name of the region, the municipal, school and respondents are kept anonymous. For example, to avoid the possibility

of the participants being recognized, the name of the school and participants are presented by letters and in the authorization letters, the name of the region and municipal are rubbed.

### **3.10 Limitations of the Study**

There were some factors which appeared to limit the study. First and foremost, the research clearance from relevant authorities in the study region was delayed. Thus, the time for data collection was so short. That made the investigator to have a lot of activities within a very short time. However, the investigator was able to collect data that answered the targeted research objectives. Lastly, there was the reluctance of some respondents to participate in the study especially teachers in the pretext that their days were pretty scheduled due to some official responsibilities. However, the investigator had to spend a lot of time and extra effort to break down the barriers and build a good rapport, and eventually the research was carried out successfully.

### **3.11 Delimitation of the Study**

This study was qualitative in nature and was delimited in one public inclusive primary school in Tanzania. The respondents included only learners with visual impairments, classroom teachers with and without special education training and sighted learners. Therefore, since the sample involved was small due to the nature of the study, the findings should be treated carefully and cautiously as they cannot be generalized to other inclusive primary schools.

## **4 PRESENTATION AND ANALYSIS OF THE FINDINGS**

This chapter presents and analyses the result of the research findings. This study focussed on investigating the challenges which children with visual impairments face in learning and participation in inclusive primary schools in Tanzania. Specifically two research objectives were addressed: First, to examine how the learning environment affects children with visual impairments in inclusive school. And second, to explore the social interaction of children with visual impairments in learning and participation in inclusive primary schools. The data was collected using semi-structured interview and non-participatory observation methods among children from Grade 3 to Grade 7, regular teachers and teachers with specialization in special needs education in one public inclusive primary school.

To protect the respondents' anonymity, names of the participants were not used and instead letters and numbers were used to represent the respondents as well as structuring the quotes obtained during the interview sessions, also the age of the teachers were not mentioned. As can be observed from Table 1, VI stands for learner with visual impairments, S for Sighted learners, T for teacher, GT for general teacher and ST for special teacher. Wherever the number was added, it represented the number of the participants in the study (for instance, VI-1, VI-2...stands for the first, second... learner with visual impairments). However, the numbers contain no rank values, as they have only been used for identification purposes.

**Table 1: A profile of the respondents**

<b>Learners with Visual Impairments (VI)</b>	<b>Age (Years)</b>	<b>Grade</b>	<b>Sighted Learners(S)</b>	<b>Age (Years)</b>	<b>Grade</b>
VI-1	10	3	S1	9	3
VI-2	12	4	S2	10	4
VI-3	11	5	S3	11	5
VI-4	15	6	S4	12	6
VI-5	17	7	S5	13	7
VI-6	9	3	S6	8	3
VI-7	13	4	S7	10	4
VI-8	15	5	S8	10	5
VI-9	14	6	S9	12	6
VI-10	16	7	S10	14	7
VI-11	10	3			
VI-12	11	4			
VI-13	12	5			
VI-14	15	6			
VI-15	17	7			
<b>General Teachers (GT)</b>			<b>Special Teachers (ST)</b>		
T2			T1		
T3			T5		
T4			T6		

In order to obtain a good interpretation of the studied phenomenon, the data was coded. Following the analysis of the raw data, various categories emerged. Thereafter, the categories were grouped into themes in relation to the theoretical perspective and research questions. The findings are presented in the context of the specific objectives of the study and in addition to the theme that emerged from the field as presented in Figure 4 below.

Themes	Categories
Learning environment for learners with visual impairments in inclusive schools	<ul style="list-style-type: none"> <li>• Teachers' extra time with visual impairments</li> <li>• Teachers' cooperation among themselves in handling learners with visual impairments</li> <li>• The attitudes towards inclusion of learners with VI.</li> <li>• Infrastructure within the school compound</li> <li>• Teaching and learning materials</li> <li>• Class size and management</li> </ul>
Interaction of Learners with VI in learning and participation in inclusive schools	<ul style="list-style-type: none"> <li>• Interaction between learners with visual impairments and sighted peers</li> <li>• Stigmatization</li> </ul>
Factors affecting the implementation of inclusive education at primary schools	<ul style="list-style-type: none"> <li>• Mode of admission</li> <li>• Number of teachers &amp; their qualifications</li> <li>• Channel for counselling</li> <li>• Support after class hours</li> <li>• Cooperation among teachers and parents</li> <li>• Difficulties during holiday</li> </ul>

**Figure 4: Themes and categories**

Table 4 presents an overview of the findings in the study. It shows three main themes in column one as well as the categories within each theme in column two. The first two themes in the table are derived from the theoretical perspective and the research questions. The third theme developed through analysis of the data collected, since the findings concerning the implementation of the inclusive education were not presented by the two predetermined themes. Within each of the three themes there are categories which emerged from the data analysis.

## **4.1 Learning Environment for Learners with Visual Impairments in Inclusive School**

The first objective of this study was to examine how the learning environment affects children with visual impairments in inclusive schools. To answer this research question, data were collected through both the interview and observation. The findings are organised according to the categories as mentioned in Figure 4 and they are presented hereunder.

### **4.1.1 Teachers' extra time with learners with visual impairment**

When the respondents were asked to state whether teachers did spend some extra time with learners with visual impairments after class sessions, the majority of them reported that it was very rare to find a teacher who spends his/her extra time with such learners. For example, one of the respondents among learners with visual impairments claimed that:

*...no, not really. Most of teachers don't have extra time with us. Once they finish in the class, ... that is all. I think may be if they can get good payment then they can have a time with us (VI-10, Grade 7).*

Likewise, even teachers' responses on the same question were almost similar. The majority of them reported that they had no extra time to spend with the learners with visual impairments. For instance, one of the teachers argued that:

*mhh...for me who is of the same type like these children, I do, but not all teachers do that as most of them lack motivation (T3, GT blind).*

However, some teachers with special education needs training reported that they were having extra time with learners with VI after class hours, where they teach them hand - work, typing and Braille-skills as well as helping them in different subjects according to areas of difficulties which they had faced during the lesson. The same findings were elicited through observation. The investigator did not observe any teacher spending his/her extra time to help the learners with visual impairments either in the class or after the lesson.

Following such findings, the investigator was interested to find out the reasons for such reluctance among the teachers. The majority of respondents, both teachers and learners,



argued that teachers were lacking motivation to perform their duties due to meager salaries and big workloads.

#### **4.1.2 Teachers' cooperation among themselves in handling learners with visual impairments**

Teachers' cooperation among themselves in handling learners with visual impairments was investigated. The data were obtained from the category of respondents among teachers. The investigator wanted to find out if teachers do cooperate among themselves to meet the needs of learners with VI by asking teachers the following question: When facing challenges in the class do you collaborate with your fellow teachers?

All teachers postulated that to some extent they were cooperating. One of the teachers claimed that:

*Actually not so much... you know these general teachers do think that they have more knowledge about these learners with VI. For example, during workshops and seminars about inclusive education, they concern themselves with their own concern, but when it comes to teaching they leave it to us. So I also do it the way I know... (T2, GT)*

However the data obtained through observation technique was contrary to what was reported by teachers. There was no kind of team teaching observed. Every teacher, whether general or special teacher, attended his/her classes alone.

#### **4.1.3 The attitudes towards inclusion of learners with visual impairments**

When respondents were asked about their feelings toward inclusion of the learners with VI in inclusive schools, the majority of them expressed a positive attitude. For example, most of learners with VI were of the opinion that being in the same class and school with their fellow sighted learners was something which made them feel welcomed and accepted in the school community. They further argued that it help them to make friendships with their peer sighted learners. For instance, one of the learners with VI maintained that:

*learning together in the same class with those who can see encourage me more (VI-5, Grade 7).*

Another learner was of the opinion that:

*Sometimes the sighted friends help me to get my way when I got lost, so I can say that it is good, it is not like if we could have been alone in our own school (VI-4, Grade 6).*

However, a few of them responded negatively. They argued that studying in the mainstream school was not favouring them as the environment of the school were not conducive and even some of the sighted learners thought that they were stupid. For example, VI-3 (Grade 5) strongly narrated that:

*I am not fine about being together in the same school with sighted learners.*

When such learner was probed by the investigator to explain the meaning of “...not being fine”, that particular respondent claimed that there was not any special care within the school for learners with visual impairments. In support of that another learner with VI added that:

*We are here in the mainstream school anyway, but we are still struggling with our learning needs. To me I think it is better where I was before, than studying here with these able bodied learners (VI-15, Grade 7).*

Another respondent argued that the situation was better in special schools than it was in the inclusive ones as they were treated nicely by their teachers.

On the other hand, the majority of respondents among teachers were of the same feeling that including learners with VI in the mainstream was good and beneficial for the whole community. One of the teachers maintained that:

*...(silent a bit) mhmhh.... I think inclusion has a benefit for the learners with disabilities and for the whole school if it were carried out in a good way (T4, GT Blind).*

Another teacher argued that:

*Yes it has a benefit for these learners, it makes them feel like they are also among others... above all it is also a help even for the sighted learners (T1, ST).*

Another impressive comment was that inclusive makes learners face challenges together, cooperate with their fellow learners, and not feel excluded. Likewise, the respondents among the sighted learners were of the same feeling that inclusive education was very important. One of them pointed that:

*it is good for them to study together with us, because we can help each other and for them they will not feel lonely (S6, Grade 3).*

#### **4.1.4 Infrastructures within the school compound**

The infrastructures within the school compound were investigated. In regards to this, it was only addressed to learners with visual impairments and teachers. When they were asked if the infrastructures within the school are conducive for the learning of visually impaired learners, about 10 out of 15 learners with VI reported that infrastructures within the school compound were not favourable as there were many trees and stones around the school. Teachers also stated that facilities like toilets and buildings were not user friendly as well. For example, a respondent among teachers stated that:

*I think the surroundings are not so favourable for these learners, and I do think they are struggling much with this environment, a big compound which is not favouring them? (T3, GT blind).*

It was further observed by the investigator that the classrooms were overcrowded, thus it was not easy even for the teachers to adjust the learning environment for the visually impaired learners. Likewise, findings showed that there were no mobility orientations around the school for the new coming learners with visual impairments. The respondents among learners with VI reported that they were being left to themselves without support to explore the school environments in order to find their ways around.

#### **4.1.5 Teaching and learning materials**

When the respondents were asked if visually impaired learners did have enough teaching and learning materials in class, all the respondents said that teaching and learning materials were problems for the all learners and especially to the visually impaired children. The respondents pointed shortage of teaching and learning resources such as; Braille materials, computers, embossers (Braille printer), Closed–Circuit Televisions (CCTV’s), Braille papers, A4 frames and pens. For example VI-11, (Grade 3) said that:

*They are not enough, Perkins Braille machines. For example it is only grade 7 who have them and even for them not all in the class have them.*

Another illustration given by VI-2, (Grade 4):

*Our peer sighted learners have their text books and they can find them in the library. Not like us even if we go to the library there are no our Braille textbooks. Sometimes we fail to do exercises we are assigned by the teachers as we have to wait for our fellow sighted learners to read to us from their normal text books.*

Teachers also admitted that materials were the major challenge for learners with VI. They wondered about the frequent changes of the syllabus ordered by the Ministry of Education and Vocational Training without considering learners with VI. T2 (GT) stated that:

*We have many learners in our classroom, but just 2 Braille machines for seven learners, which is not enough.*

In support of this, T5 (ST) also explains by saying that:

*Both teaching and learning materials are lacking, and it is a challenge for teachers while preparing the lesson; you might find that some of them prepare the lesson without considering the VI learners.*

T4 (GT) also elaborated this with feelings:

*For example, in my class I have 9 children with VI, staler (pens) are only 4, which means, once I gave the exercise, the other 5 learners have to wait till their fellow learners finish the work, after which then they can start.*

The response from the sighted peers was also the same; they admitted that VI learners did not have text-book materials. For example, in the class during the lesson, they were the ones who read for them from normal textbooks.

The observation, which was done from grade 3 to grade 7, also revealed the same problems of the teaching and learning materials in the all classes. For example, during the observation of English lesson in grade 7, it was the time for reading, but only two learners with VI had printing text special for them; the other five learners with VI were just there. By the end of the lesson, the teacher said to the investigator that they had no Braille text-books for the learners with VI, so what they usually do, were to print a Braille text. However on that day, he had printed only two. Furthermore, during the time of the field work there was a new syllabus

which had just arrived. Through the observation in the library there were text - books materials for the sighted learners but surprisingly, there were no even one single Braille text-book for the learners with VI.

#### **4.1.6 Class size and management**

During interview all the respondents confirmed that there were many students in the class. Such situations created the difficulties for one teacher in managing the whole class. VI-14 (Grade 6) for example stated that:

*You know we are so many in the class. Therefore for the teacher to meet each one's needs at the same time is a huge task.*

Furthermore, teachers also pointed out that they were facing difficulties in meeting the needs of those learners with special education needs due to overcrowded classes. The same findings were revealed through the observation. For instance, some classes had up to 87 children, the number that far exceeds the recommended ones of 45 learners per class/stream. Such situations made it difficult for the teacher to move around the classroom. Hence many students were making too much noise during the lesson to the extent that the teacher could not manage them properly.

## **4.2 Social interaction of Learners with Visual Impairments in Learning and Participation in Inclusive Schools**

The second objective was set to explore the social interaction of children with visual impairments in learning and participation in inclusive primary schools. The data were elicited through interviews and observation methods. The data are analysed and presented below:

### **4.2.1 Interactions between learners with visual impairments and sighted Peers**

This was discovered when the investigator wanted to know if learners with visual impairments normally participate in extracurricular activities. Data obtained through the interview revealed that there was lack of social skills among both learners with VI and sighted learners. For instance, it was reported that there were some of the sighted learners who did not want to mix with learners with VI and even if they did, they would end up destroying their

things, or bullying them. Thus teachers were reported to prefer learners with VI to play on their own playground. As a result they rarely mixed with their fellow sighted learners in extracurricular activities. One of respondent among learners with VI had this to say:

*For me, I do not play, not that I do not like to, but it is because of the sighted learners...You know what, some of the sighted learners think that we are not like them, they think that we are fools, so they can push us around , kick us out...(VI-15,Grade 7).*

Observation technique also revealed that most of the children with visual impairments were walking alone, rarely mixing up with their fellow sighted learners during break time. And even in the classroom, there was not much interaction between them. Interaction was mostly seen when sighted peers were reading for them.

#### **4.2.2 Stigmatization**

Stigmatization is a kind of humiliating attitude towards a person because of illness, nationality, colour, religion, and disability. Stigmatization came up as a category when the respondents were asked whether learners with VI do experience challenges through interactions process. The majority of respondents reported that stigmatization is a challenge for learners with VI in their learning and participation in the school. Findings further revealed that stigmatization was higher among learners with VI than any other groups in the school community. It was reported that such stigmatization was accompanied by name calling or labelling (e.g. ‘you blind’), running away from them, and sometimes bullying. For example one of the respondents among learners with VI claimed that:

*You can ask sighted learners to clarify a certain task to you, but he/she can respond to you with “I don’t know” while you hear him/her assisting their fellows who can see... then I ask myself why? Is it because of my blindness or what? (VI-8, Grade 5).*

Another respondent narrated that:

*One day I was coming from the dormitory, I heard sighted peers talking around, then I called and asked them,“ hi my friends, is it the time for class now?” Believe me or not... I am telling you, all of them ran away without saying even a single word to me! Worse still, before they ran away, they placed a big stone on my way! (VI- 14, Grade 6).*

Likewise, respondents among teachers were of the same opinion. One of them restated that:

*It is a problem which we as teachers are still struggling with, some sighted peers can even tell them that they will not read for them as their fathers did not take them here to read for the blind ones (T1,ST).*

Parallel to that, a respondent among the sighted learners commented:

*That is normal, others do not want even to sit with them or even touch them (S3, Grade5).*

Furthermore, the same scenario was noted by the investigator during observation. For example some unpleasant comments like “you are always disturbing, you blind people”, “Hey you, how many blind learners are in this class?” were common among teachers.

### **4.3 Factors affecting the Implementation of Inclusive Education in Mainstream Schools**

The investigator was also interested in examining the factors that affect implementation of inclusive education (IE) at primary schools. It was deduced from the findings that the implementation of IE faces a lot of challenges. The raised challenges included but were not limited to the mode of admission, numbers of teachers and their qualifications, channel for counselling, support after classes and cooperation among teachers and parents and difficulties during the holidays. These are presented below:

#### **4.3.1 Mode of admission**

Knowing how the learners with visual impairments got admitted in mainstream schools was investigated. The question was addressed to learners with VI and teachers. The respondents were asked to mention sources of information that enabled them to know the school and apply for admission. Different sources were mentioned by both respondents among teachers and learners with VI. Sources included receiving information from local government authorities, friends and relatives, teachers, media, and Comprehensive Community Based Rehabilitation in Tanzania (CCBRT) Hospital. For example, one student stated that a certain teacher informed his father about the school after his condition became worse. Likewise, a respondent among teachers argued that

*Here we do not have proper ways of admission. For example some just come themselves, others get information from the CCBRT hospital (T6, ST).*

### **4.3.2 Number of teachers and their qualifications**

The role of teachers in the teaching and learning process is very important as they guide students to learn swiftly. Their number and skills are very important in educating the children. Thus the investigator was interested to find out if the school had enough and competent teachers. The findings showed that there were no enough and qualified teachers for inclusive education. For example, a respondent among learners with VI stressed that:

*You know some of our teachers do not have enough training, so they do not know how to meet our needs. For example in Mathematics, you can hear the teacher saying this plus this is equal to how class? (VI-8, Grade 5).*

Again respondents among teachers had the same opinion that there were no enough and qualified teachers to handle inclusive classes, a factor that forced regular teachers to teach inclusive classes. One of the respondents among teachers had this to say:

*For me, I am not trained to teach learners of this kind but here, I am teaching them. Which means to meet the needs of these learners with VI is not easy, as I do not know how to do it (T2; GT).*

Furthermore, the data obtained through observation indicated that there were no enough and competent teachers in the observed school. Findings further revealed that the teacher-student ratio was also a problem. For example, classes had about 54 to 87 children who were being attended by one teacher at a time, though learners had varied learning needs. For instance, the investigator observed the teaching and learning process in a Mathematics class for Grade 5 where there were more than 60 learners. The findings revealed that the teacher in that class was a GT; who was unable to control the class and cater for all learners. Through the interview, that particular teacher argued that he was not a special teacher, so there was nothing he could do to help learners with VI.

### **4.3.3 Channel for counselling**

Counselling services are very important in the learning environment, especially for the learners with VI. The question was addressed only to the learners with VI. The investigator



wanted to know about when learners with VI facing challenges in school to whom do they discuss with by asking them the following question: when facing challenges in school whom do you discuss with? All learners with VI revealed that there was no counsellor in the X school. Thus learners with VI reported that they usually seek counselling support from any teacher who happens to be around, talk to themselves, or remain with their problems.

#### **4.3.4 Support after classes**

Supports for learners with VI are very important. The findings showed that little support was available, especially from care-givers who by then were not enough (and had not received any special education needs training) compared to the number of children who needed special treatments. For example, a VI-14 (Grade 6) said that:

*Our caregivers are few and we are many, especially when there is an electricity cut off.. hoooh! We face real difficulty; they cannot manage to help all of us at the same time.*

#### **4.3.5 Cooperation among teachers and parents**

On the other hand, the investigator was also interested to find out whether there was any kind of cooperation among teachers and parents of learners with VI. The investigator went far by looking into the frequency and mode of such cooperation. When the respondents were asked if teachers do collaborate with parents of learners with VI, they indicated that there was very little cooperation among teachers themselves as well as between them and parents. Teachers and parents rarely meet, especially at the beginning of school terms when learners with VI are picked for the school, or at the end of the terms, when they are taken back to their homes for holidays. However, it was worth noting that teachers had a good contact with parents of the normal children. For example one of the interviewed learners with VI remarked that:

*Mhmmm...My father to meet with a teacher? He has never tried to visit me here and I know; he will not! (VI-3,Grade 5).*

Another comment from a teacher was that:

*The parents of these children... their economic situation is not good and as they are living far away, they cannot afford the transport, so we only meet them if there is a serious case like sickness (T1,ST).*

However, it was commented by respondents among teachers that, there are some parents who know the value of the education for their children while others do not.

#### **4.3.6 Difficulties during the holidays**

During the time of the field work it was revealed that there were some learners with VI who were still at home though 8 weeks had passed since the school had been resumed. The teachers responded that most of those learners came from far away from the city, so up to that time they were still at their homes because the government had not yet allocated funds for their travel costs. The teachers further added that most of the parents of those learners with VI were financially poor, so they were unable to manage the travelling costs for their children. Such situation was a big challenge because those learners were already missing some of the lessons, and they were not sure whether the missed lessons could be taught to them as teachers were not ready to repeat the already taught lessons. For instance, one respondent among teachers argued that:

*But this is the challenge for the VI learners because by the time they will be back then others have moved on and we cannot go back or repeat what we have already taught as we are running with time (T4, GT3).*

## **5 DISCUSSION OF THE FINDINGS**

The main purpose of this study was to investigate the challenges which children with visual impairments face in learning and participation in inclusive primary schools. Two research questions guided this study, and they are recapitulated below:

- How does the learning environment affect the children with visual impairments in inclusive schools?
- How is the social interaction of the children with visual impairments in inclusive school?

This chapter therefore, focus on the discussion of the findings based on the application of the ideas from the theoretical perspective as discussed in chapter two and relevant literature. The discussion is based on themes and categories as presented and analysed in chapter four.

### **5.1 Learning Environment for Learners with Visual Impairments in Inclusive School**

A conducive learning environment for any type of learners is very important. Various factors like favourable attitudes and perception, the availability of teaching and learning resources, and help from members of school community are among the important ingredients that make school a better place for learners, particularly those with visual impairments. In regards to Webster & Roe (1998) in learning process all children are influenced by the environmental factors. In this study findings showed that majority of the respondents showed a positive attitude towards inclusion of learners with visual impairments in inclusive primary schools. Such findings were similar to those obtained by Ezekiel (2009) and Kayombo (2010) who found that primary school teachers had a fair understanding of inclusive education and thus had a favourable perception towards it. Such positive attitudes towards inclusion of learners with VI is supported by arguments that inclusion makes them feel welcomed, confident and friendly as well as making them feel a part of the mainstream community. According to UNESCO all children have a right to learn together regardless of their individual differences since including them in their mainstream school improves their learning and their social relations (Thomas & Vaughan, 2004). However, Nydal (2008) postulated that although the idea of the inclusion of learners with disabilities, particularly visually impaired learners in the mainstream school has been viable for a long time, still there are others who are against it due to different challenges and barriers which are facing it. Furthermore, even though the findings

showed favourable attitudes towards the inclusion of learners with VI, various factors were raised as part of challenges in the learning environment for learners with VI in inclusive primary school. These factors are discussed below:

### **5.1.1 Teachers' cooperation among themselves in handling learners with visual impairments**

Teamwork is one of the factors which enhance success in any organization. Working in teams in the teaching profession facilitates the spirit of togetherness and fosters academic excellence in the learners, particularly visually impaired learners. Booth (2011) pointed that for the building of an inclusive community, there is a need to work in collaboration with 'colleagues and in solidarity', which can help an understanding of how the institution can achieve changes. The investigator was interested to explore how teachers are cooperating with each other at school X where this study was conducted. Despite its importance, the findings indicated that the cooperation among teachers themselves, to some extent was not good. There was no good cooperation between general teachers and specially trained teachers, as they rarely collaborated. The situation was expanded more by the perceptions of general teachers (GTs) about the workshops and seminars about inclusive education. Most of the prepared seminars and workshops were attended by Special Teachers (STs) leaving out the GTs who also needed to acquire knowledge and skills in inclusive education. In the end all teachers found themselves teaching in inclusive classes. This kind of treatment seemed to discourage and demoralise the GTs from assuming their responsibilities effectively as special teachers are favoured when it comes to seminars and workshops. T2 (GT) said that:

*....Coming to teaching they are leaving it to us, then I also do it the way I know it and that is all (sec. 4.1.2).*

This illustration implies little understanding between these two groups of teachers. This can raise the question: how do these children with VI manage learning if their teachers whom they depend on have so little collaboration? It was a challenge to learners with VI, as the findings showed teachers just taught without collaboration and that was especially the case for general teachers who need guidance from special teacher on how to handle learners with VI.

Good cooperation between teachers, can promote a good relationship among teachers and they can manage to share their knowledge and skills by talking to each other, for example

about, the learners' needs. And they can manage to solve the situation better. With regard to that (Rose, 2010) elucidated that it has been recommended in inclusive settings that teachers have to work through collaboration, and communicate with each other. That is to say that, through supporting each other, teachers can manage to meet the needs of each individual learner in the class.

### **5.1.2 Infrastructures within the school compound**

Other factors that acted as barriers to the process of inclusive education for learners with VI included infrastructures. For example building structures like stair cases, pathways, and toilets were not favourable. The importance of a conducive physical environment that allows easy movements, extra open spaces and easy interaction is obvious. Learners with VI need a very conducive environment more than any other learners. From the Universal Design ideas, flexible environment which can meet the needs of the individual learners should be created. In addition to that Vygotskian theory insists that for the child to develop mentally there is a need to allow the child to interact with the environment surrounding him/her.

The findings of this study indicated that the physical environment of the school X was not supportive enough for learners with VI. Such findings are supported by Zulch (2010), who found the same. Again, Apolinali (2007) also found that the lack of good physical structures and water facilities had a great impact on inclusive education in Tanzania. Likewise, James (2012) reported that the problems of infrastructures caused a negative outcome in education which was not only for the special needs children but also to the regular children.

### **5.1.3 Teaching and learning materials**

The findings further showed that teaching and learning materials were another challenge facing learners with VI in inclusive school. There were no or few resources like Braille text books, Perkins Braille machines, pens, computer, and CCTVs, talking calculators and books. The investigator observed few learners with VI having Perkins Braille machines. Such challenges are common in developing countries such as Tanzania (Zindi, 1997). Teaching and learning materials are considered to be the main challenge to the inclusive school and specifically for the learners with VI (Ngonyani, 2010; Nydal, 2008; Zulch, 2010). In connection to that the study by Najjingo (2009) also pointed out that lack of instructional materials affects all the children with disabilities and especially those with VI in inclusive

schools. It can be argued that learners with VI are struggling much with their learning environment. However, the availability of such resources is very important during teaching and learning process. That is, the child interacts with the teachers, concrete materials available and capable peers. With regards to Vygotsky's view on the learning environment, the main activity of the child is to interact with the materials, either written by the teacher or fellow peers, which in turn may lead to the cognitive development of the child (Berk & Winsler 1995). This can be related to Gross (2002) who argued that the availability of the teaching and learning materials can make the work of the teacher easy as well as enhancing learning outcomes. Likewise, Ezekiel (2009) reported that the nature and availability of teaching and learning resources could affect teachers' perception of inclusive education.

#### **5.1.4 Class size and management**

The finding showed that the classes were overcrowded with large numbers of students which caused the control of the class to be difficult for the teachers. The numbers of the learners in the class ranged from 54 and above. According to Dgebuadze (2011), the greatest barriers in inclusive education in Georgia were observed to be overloaded classes which had more than 40 students. Having a large number of learners in the class creates an unfavourable learning environment for the learners with VI. Referring to the teaching methods, it was not easy for the teachers to adjust the methods of teaching such as group work, discussion and role play. In most of the observed classes, teachers were using only lecture methods, and questions and answers methods to teach. Questions and answers can be considered useful to learners with VI as it can help them to engage in oral responses as well. Anyway, in cases where there is large number of the learners in the classes, teachers are likely to fail to manage the class. This causes some difficulties for the teacher to manage the children's behaviour during the teaching and learning process (Ngonyani, 2010). Referring to one of the observation done in grade 3, at the end of the lesson some learners with VI, for example, were sleeping, an indication that they did not participate in the learning process. Thus there is a need for the classroom size to be reduced and have enough space which can ease the management of the class by the teacher as well as adjust different methods of teaching in order to make learners with VI participate in the teaching and learning process. As Palmer (2005) asserts, an adjustments in teaching strategies and good classrooms management to learning environment of the visually impaired children is needed. This is in line with one of the principles of Universal Design for Learning (UDL). The principle emphasizes that the presentation of the

lesson in different strategies not only helps the deeper understanding of the concept but also enhances the child's participation in the lesson (Mcguire, Scott & Shaw, 2006).

## **5.2 Social Interaction of Learners with VI in Learning and Participation**

The findings showed that the social interaction of the learners with VI in the mainstream school was a big challenge. The findings based on the emerged categories are discussed hereunder.

### **5.2.1 Interactions between learners with visual impairments and sighted peers**

For constructive learning to take place, a close relationship among learners themselves is very important. The teaching and learning process is now being organised in a way that encourages cooperative learning among the learners with various educational needs. If there is no good social interaction within the classrooms and school compound, there is no way for cooperation to take place. The findings of this study revealed that there was poor social interaction between sighted learners and learners with VI. In extracurricular activities for example, there were some of the sighted learners who were not willing to play with their fellows with VI, and even if they did, they just ended up harming them. Such findings resembled those of Zulch (2010), who documented that most of the people do think that because of the blindness those learners are also intellectually impaired, hence are excluded. Furthermore, a study done by Human (2010) also showed that learners with visual impairments did not join their fellow sighted in their extracurricular activities.

Furthermore, the present study revealed that due to the challenges which learners with VI face through interacting with their fellow sighted learners, teachers prefer them to play separately. Such separation can be questioned and against the principles of inclusive education. Inclusive education aims at breaking the barriers to education as well as to social interactions. If learners are separated, there is no way that they can learn from other groups. In line with this Vygotsky claimed that for the child to engage in high mental functions, his /her distinguishable feature of psychology is rooted in social interaction.

Though some few elements of interaction were observed, still there was not enough. For example, interaction between these learners took place only when learners with VI asked sighted ones to read them what was written by the teacher on the chalkboard or from the normal text books. The effects of exclusion are very harmful for the social environment of the learners regardless of their differences. Gindis (1999) argued that the disability which the child has not only affects his/her relationship with the world but also his/her relations with people. Thus there is a need for the teachers to put more efforts into teaching social skills to all learners, so that sighted learners, for example, can reduce the negative attitudes they have towards learners with VI. That can also make them aware of how to treat each other. According to Lamport *et al.* (2012) social interaction in the school community can help learners to exchange knowledge. Socio-cultural theory emphasises that social relations are necessary to the child's understanding in the learning process. In addition to that the inclusive school does not only aim at providing quality education but also at eliminating the biased attitudes and developing an inclusive society (UNESCO, 1994).

### **5.2.2 Stigmatization**

Stigmatization can be referred to as a negative habit in which people with disabilities are labelled (Agbenyega, 2003). Stigma can result out of old belief systems, ignorance, attitudes of isolating people who are perceived to be different, and a lack of knowledge and skills (Avoke, 2002). The findings showed that learners with VI experienced stigmatization in the mainstream school from their fellow sighted peers as well as from some of the teachers. Referring to behaviour, the stigmatization can be verbal or physical. For example, it may include name calling and bullying.

Based on the findings, stigmatization was one of the bigger challenges among the learners with VI. Such findings corroborate those by Mmbaga (2002) who revealed that teachers were labelling and categorizing learners as “bright and dull”. The reason behind this could be due to little knowledge and skills about social interaction to the teachers. When stigmatization is persistent, it makes the learners psychologically as well as socially harms, and if that is the case, then their learning process is also greatly affected.

Furthermore, stigmatization can also lead to lack of confidence and demoralization with regards to learning and participation among learners with VI, which may result into poor performance compared to their fellow sighted learners. Due to such stigmatization, some



groups of these learners prefer to be in their own groups rather than mix together with non-disabled learners (Bakken & Rotatori, 2010). In line with this, Baffoe (2013) explains that apart from stigma being a personal pain, it also makes them refrain from seeking assistance, and they can feel 'hopelessness' as well.

Importantly, learning is achieved when the learner has a conducive learning environment - physical, social and psychological. Even though the stigmatisation was high, teachers showed that it was being dealt with accordingly. It can be argued that peer learners with sight had such stigmatization because they were not prepared to cope with the learners with VI in inclusive classrooms. However it is insisted that both teachers and peers should not discriminate learners with disabilities (Igune, 2009). As a matter of fact, it is important to deal with an individual learner as a child and not with his/her impairments (Vygotsky, 1983 as cited in Gindis, 1999). To prevent the social factors which affect the child, Vygotsky pointed out that there is a need for the society to change its social attitudes towards children with disabilities (Gindis, 1999). This is to say that learners with VI should be seen first as individual children. Dixon and Verenikina (2007) added that according to Vygotsky's views, the principles of development of children are the same regardless of individual differences.

### **5.3 Factors Affecting the Implementation of Inclusive Education in Mainstream Schools**

The findings revealed that there were several challenges which affect the implementation of inclusive education in mainstream schools. Several factors were revealed through interviews and observation. Such factors included: Mode of admission, number of teachers and their qualifications, channel for counselling, support after class hours, cooperation among teachers and parents and difficulties during the holidays.

#### **5.3.1 Mode of admission**

The mode of admission in this study referred to the way in which learners with VI got information that enabled them to be admitted in the school. The findings showed that there was a problem in the channel of the information about getting admission to inclusive schools. However, findings revealed that learners with VI did get information about the school through information from the local government, information from friends and relatives, media and CCBRT hospital. Based on such findings, it can be argued that there are no appropriate

channels of information between the school and society at large. Probably that is because there is no explicit and affirmative policy in the country to guide the provision of inclusive education at primary schools. Improper ways of information flow lead to delays in the admission of learners with VI. As a result, learners with VI attend the school at an older age compared to their fellow sighted learners. Delay in starting school for the learners with VI creates a challenge in their learning process. Being much older than the other class members can cause shyness and lack of confidence to some of learners with VI. This in turn can affect their learning and participation especially in group work, causing persistent truancy and drop outs. For instance, primary learners drop out in 2012 was about 69015 learners in total countrywide (MoEVT, 2012).

### **5.3.2 Number of teachers and their qualifications**

The findings revealed that the numbers of teachers were not enough in relation to the number of the learners in the school. The findings showed that even the available teachers were not qualified to teach the learners with VI. Other studies carried out in Tanzania have pointed out the same (Mwakyēja, 2013; Nydal, 2008). Due to shortage of specially trained teachers, learners with VI are being taught by general teachers. And due to lack of knowledge and skills, teachers challenges in preparing lessons which can cater for the needs of the individuals' learners in the class. According to Igune (2009), most of the general teachers lacked the basic knowledge and skills to accommodate learners with VI in the inclusive classrooms or even to engage them in extra-curricular activities. Similarly, the participatory workshop held in Dar es Salaam - Tanzania, also revealed that the shortage of special education needs teachers was a problem in the achievement of inclusive education (ICC, 2008). Due to the low number of the specialist teachers, learners with VI remain without assistance in their Braille reading and writing during the lesson (Igune, 2009). In connection with this, assistance is very important for the learners with VI. According to Vygotsky's view, children can perform better when they have a proper assistance from adults (Gindis, 1999). Moreover, good support between STs and GTs may make the VI learners participate well in the learning process just like their fellow sighted peers.

### **5.3.3 Channel for counselling**

Due to different social challenges which are facing learners with VI in the school, other special support to them in their setting is very essential. As pointed out in chapter four, these

learners do experience stigmatization which leads to difficulty in participation in academic and extracurricular activities. In such cases learners need special moral support, for example, having counsellors in school who can talk with them can help to maintain these children in the regular social and cultural community (Dixon & Verenikina, 2007). Regardless of its importance, the findings revealed that there was no proper channel for counselling in the school as there was no counsellor available for them. Thus teachers sometimes assumed a double role: Counselling and teaching. In such instances, children might not feel free to talk openly about their problems.

#### **5.3.4 Support after classes**

It was very important for the investigator to know if learners with VI receive support after class hours. Booth (2011) added that when children and young people face challenges in 'special educational needs' it is normal to think about the support, which is by providing additional people to work with individual learners to overcome their challenges. Providing the support to the individual learner promotes his/her participation in the teaching and learning process. The findings revealed that there was a problem with the support system after class hours. There were insufficient caregivers to give learners with VI support after the class hours. It was also noted that after class hour that ended at 2.00 p.m. all sighted learners go back home as they had no boarding facilities. Thus learners with VI remained in school alone with caregivers. Such separation can create difficulties in their social interaction. According to Muvirimi (2002) when two groups of people are not joined together, the understanding and acceptance of the individual difference and change of their bad attitudes towards their fellow is not possible.

#### **5.3.5 Cooperation among teachers and parents**

Parents can contribute to the success of their children's learning. They are the ones who know their children best. Thus collaboration between parents and teachers can help to solve the problems facing the children. Rose (2010) stresses that, all parents can contribute to valuable information on the performance of their children through ongoing communication with the teacher, and thus they can meet their children's needs. The findings showed that collaboration between the teachers and the parents of the learners with VI in school X was poor. The participants postulated that teachers only meet with the parents of the sighted learners. The lack of cooperation was reported to be caused by the distance between the school and homes

of the learners with VI, and the poor economic situation of the parents, which made them unable to afford the transport cost to visit their children. Moreover, it was revealed that there were some of the parents who still did not see the value of education for children with VI. Such findings were similar to those obtained by Zulch (2010). His study revealed that parents of the learners with VI were not aware of what was going on in school for their children as they had 'very little' contact with the schools' teachers. Likewise, Najjingo (2009) found that the negative attitudes of the society towards children with disabilities limit these children in their learning and participation in inclusive schools. Generally, when staff, children and the families collaborate together they can manage to overcome the school barriers in learning and participation (Booth *et al.*, 2002).

### **5.3.6 Difficulties during the holidays**

Holiday time in this study refers to the break time when the schools are closed and all children are at home. In the case of Tanzania, at primary level there are two big holidays in June and December consecutively. The findings showed that learners with VI face some challenges by the end of their holiday times. It has been deduced from the findings of this study that these learners are included in a mainstream school, but not in their local schools where they live. They are travelling to another region to get education. As a motivation for the parents to send their children to school, the government take the responsibility for their transport to school and back home. However, sometimes the government delays allocating funds for their transport from their home and back to school. As a result there is a delay in resuming study for learners with VI. For example, this study was carried in the 8<sup>th</sup> week after the holidays, yet some of the learners with VI were still at home. That creates challenge to learning and participation in inclusive schools, as when they come back their peers in the class have moved far ahead academically and the teacher is not prepared to repeat the past lessons for them or have remedial classes.

However, Moving Learners with VI from their locality can be questioned; how inclusive is that if they are moved far from their locality areas? (Booth, 2011) pointed out that in developing a school for all, the school should admit all learners from its locality. Parallel to that convention on the right of the persons with disabilities, UN (2006) advices also that including disabilities learners in the communities in which they live, can help them to access equal and quality inclusive of free primary education and secondary education with others. "The Education planning by the government should concentrate on education for all, in all

regions of the country and in all economic conditions, through both public and private schools” (UNESCO, 1994, p.13).

# 6 CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of this study, this chapter presents concluding remarks, recommendation suggested for the improvement on the challenges facing children with VI in learning and participation in inclusive school and the last part presents the recommendation for future actions and research.

## 6.1 Conclusion

The current study was set to investigate the challenges which children with visual impairments face in learning and participation in inclusive primary schools in Tanzania. First, in summarizing the findings I will refer to the three overarching dimensions of inclusive school development as mentioned earlier and these are: creating inclusive cultures, producing inclusive policies and evolving inclusive practices:

*Creating inclusive culture* is concerned with creating an environment in the school, where everyone feels welcomed and valued. It is a school where staff members collaborate with each other, as well as children helping one another. Generally it is a school where teachers, children, parents and practitioners feel secured, accepted and they have an opportunity to collaborate with one another (Booth, 2011). With regards to perceptions of respondents in the study, the findings revealed that the majority of the respondents in the study had positive attitudes about inclusion of the learners with VI in inclusive primary school. But on the other hand, the findings showed that learners with VI were facing different challenges. For example, there were little collaborations among teachers which might be due to lack of motivation; and also it was revealed that learners with VI experienced stigmatization in the setting.

*Producing inclusive policies* is about planning the school for all where everyone in the community setting is involved, and support for diversity is promoted. All staff and learners are encouraged to participate from the beginning of the school year; the school is encouraged to reach out to all learners in the locality areas (Booth *et al.*, 2002). Physically the school is accessible to all learners, the school grounds and building are conducive and all forms of support for diversity are well arranged. The findings revealed a different picture, as the study

showed that there were some challenges which were affecting the implementation of inclusive education in mainstream schools. These include such things as poor modes of admission, the shortage of teachers and their lack of qualifications. Furthermore classroom size and management due to overcrowding of the class were also problems as well as difficulties during the holidays and lack of support after class hours for the VI learners were revealed to be a challenge.

*Evolving inclusive practices* is all about developing what is to be taught and learnt, so that inclusive values and policies can be reflected (Booth *et al.*, 2002). It considers about the flexibility of the curriculum, where learning activities is planned to meet the needs of all learners. It is where children engage actively in learning and they help each other. However, the findings revealed that in the learning environment, children with VI face challenges as there is a shortage of teaching and learning materials for the visually impaired learners. Also social interactions of the visually impaired children were poor. The collaboration between teachers and parents of learners with VI was limited. In order for changes to happen in the school, the three dimensions mentioned are absolutely essential for the development of inclusion.

## **6.2 Answering the Research Questions in Short**

The main purpose of the current study was to investigate challenges which children with visual impairments face in learning and participation in inclusive primary schools. Specifically, this study sought to achieve the following objectives: first, to examine how learning environment affects children with visual impairments in inclusive school; and second, to explore the social interaction of children with visual impairments in learning and participation in inclusive schools.

The study employed a qualitative research approach. Data were collected using semi-structured interview and non-participatory observation methods. About 31 respondents who were selected through purposive sampling technique were involved. The target population was learners in inclusive primary school and teachers in one of the regions in Tanzania.

In line with the findings, as it is stated, the learners with visual impairments are included formally in the X school. But as revealed, practically they are hardly included academically

and socially and this is what I have been studying at the major research questions and sub-questions as well. Their participation in learning on equal terms with their sighted peers is limited due to different barriers they face in their learning environment and through social interaction as it is presented above in policy, practice and culture.

Based on the findings of this study, it can be concluded that inclusive education is not yet well rooted in primary schools in Tanzania. Likewise, learners with visual impairments are still facing many challenges that affect their learning and participation processes in inclusive primary schools. The conclusion has been reached due to the facts that there is still lack of teaching and learning resources, a lack of qualified inclusive education teachers, and a lack of affirmative policy on inclusive education as well as lack of convenient physical structures for learners with disabilities, especially those with visual impairments.

### **6.3 Recommendations**

The findings of this study cannot be generalized to the entire primary schools in Tanzania as it employed qualitative case study and the sample was very small. Nevertheless it can be relevant to similar inclusive schools which are facing a situation like the one studied. Hence the recommendation given here should not be seen as a critique for the things which are lacking in the school but as support and assistance to move forward for improvements.

The following recommendations are made for the improvements:

- There is a need for the government through the Ministry of Education and Vocational Training (MoEVT) and different stakeholders to work together and show commitment in the provision of inclusive education by providing enough and relevant materials for the learners with disabilities and increase recruitment of more specialized teachers in inclusive education and make sure that curriculum developed is flexible to meet the needs of each individual learner in all levels of education.
- All participants in inclusive primary schools should work together as a team. Having clear and smooth communication between them can help to reduce the misunderstandings which can impede the learning and participation of learners with VI. Through cooperation they can organize different seminars and workshops where knowledge and skills can be disseminated and developed by in- service



teachers. This can help teachers to be more creative, responsible and committed in inclusive education.

- The parents of learners with VI should be educated and made aware of the importance of educating children with disabilities as well as making them active participants in the education of their children.
- The MoEVT should incorporate inclusive education in the curriculum for general teachers' education so that at least every graduate teacher has some basic skills and knowledge on how to handle inclusive classrooms.

The following recommendations are made for further studies:

- Similar studies can be carried out in other inclusive primary schools in other regions so that the findings can be compared and generalisations be made.
- Further detailed research needs to be carried out on social challenges. Since this study employed a qualitative approach, it is also interesting if a parallel study could be conducted through employing quantitative approaches which will involve more samples.

## 7 References

- Agbenyega, J. S. (2003). *The power of labeling discourse in the construction of disability in Ghana*. Paper presented at the Australian Association for Research in Education Conference, Newcastle, New South Wales, Australia.
- Alvesson, M., & Sköldbberg, K. (2009). *Reflexive methodology: new vistas for qualitative research*. London: Sage.
- Apolinali, P. (2007). *The impact of infrastructre on inclusive education: A case of Pugu secondary school*. Unpublished MAD (DS) Dissertation. Dar es Salaam: UDSM.
- Avoke, M. (2002). Models of disability in the labelling and attitudinal discourse in Ghana. *Disability & Society, 17*(7), 769-777.
- Baffoe, M. (2013). Stigma, discrimination & marginalization: Gateways to oppression of persons with disabilities in Ghana, West Africa. *Journal of Educational and Social Research, 3*(1), 187-198.
- Bakken, J. P., & Rotatori, A. F. (2010). *Current issues and trends in special education: identification, assessment and instruction* (Vol. 19): Emerald Group Publishing.
- Bell, J. (2005). *Doing your research project: a guide for first-time researchers in education, health and social science*. Maidenhead: Open University Press.
- Berk, L. E., & Winsler, A. (1995). *Scaffolding children's learning: Vygotsky and early childhood education* (Vol. vol. 7). Washington, D.C.: National Association for the Education of Young Children.
- Booth, T. (Ed.). (2011). *Index for inclusion. Developing learning and participation in schools* (3 ed.). London: Routledge: Center for studies on Inclusive Education (CSIE).
- Booth, T., Ainscow, M., Black-Hawkins, K., Vaughan, M., & Shaw, L. (2002). *Index for inclusion*.

- Booth, T., Ainscow, M., & Kingston, D. (2006). *Index for inclusion: developing play, learning and participation in early years and childcare*. Bristol: Centre for Studies on Inclusive Education.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Bruner, J. S. (1990). *Acts of meaning*: Harvard University Press.
- Bryman, A. (2008). *Social research methods*. Oxford: Oxford University Press.
- Cohen, L., Manion, L., Morrison, K., & Bell, R. C. (2011). *Research methods in education*. London: Routledge.
- Courey, S. J., Tappe, P., Siker, J., & LePage, P. (2013). Improved lesson planning with Universal Design for Learning (UDL). *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, 36(1), 7-27.
- Creswell, J. W. (2009). *Research design: qualitative, quantitative, and mixed methods approaches*. Los Angeles: SAGE.
- Dawson, D. C. (2002). *Practical research Methods: A user-friendly guide to astering research*. United kingdom: How to Books Ltd.
- Denzin, N. K., & Lincoln, Y. S. (1994). *Handbook of qualitative research*. Thousand Oaks, Calif: Sage.
- Dgebuadze, E. (2011). *Barriers, which the Schools face in the process of developing inclusive education in Georgia*.
- Dixon, R., & Verenikina, I. (2007). *Towards inclusive schools: An examination of socio-cultural theory and inclusive practices and policy in new South Wales DET schools*. Paper presented at the Learning and Socio-cultural Theory: Exploring Modern Vygotskian Perspectives International Workshop 2007.
- Eleweke, C. J., & Rodda, M. (2002). The challenge of enhancing inclusive education in developing countries. *International Journal of Inclusive Education*, 6(2), 113-126.

- Ezekiel, S. (2009). *Determinant of primary schools teachers' attitudes toward inclusive education in Dar es Salaam*. Unpublished MA(ASP) Dissertation. Dar es Salaam: UDSM.
- Gindis, B. (1999). Vygotsky's vision reshaping the practice of special education for the 21st century. *Remedial and Special Education*, 20(6), 333-340.
- Gross, J. (2002). *Special needs education in primary schools. A practical guide*. Buckingham: Open university press.
- Human, L. (2010). *The social inclusion of learners with visual impairment in a mainstream secondary school in Namibia*. University of South Africa.
- ICC. (2008). *Research in the stakeholder dialogue on the education, gender and inclusion*. Dar es Salaam: Dar es Salaam.
- Igune, G. W. (2009). *Inclusion of blind children in primary schools: a case study of teachers' opinions in Moroto district-Uganda*. Oslo: G.W. Igune.
- James, P. M. (2012). *Six years of implementing national policy on disability in Tanzania: A study of primary school teachers' perspectives on influence of the policy in special needs education*. (Master of Philosophy in Special Needs Education), Universiteti Oslo.
- Javakshishvili, M. (2012). *How are teachers promoting social inclusion?* (Master of Philosophy in Special Needs Education), University of Oslo.
- Jidamva, G. B. (2012). *Understanding and improving the quality of the secondary school education: Conceptions among teachers in Tanzania*. Åbo: Åbo Akademi University Press.
- Karakoski, J., & Stroem, K. (2005). *Special needs education in Tanzania: A fact-finding mission final report*. Commissioned by and submitted to the Ministry of Foreign Affairs of Finland.
- Kayombo, B. (2010). *Teachers' competency in handling pupils with disabilities in inclusive primary school in Tanzania*. Unpublished M.A (ASP) Dissertation. Dar es Salaam: UDSM.

- Kisanji, J. (1998). The march towards inclusive education in non - Western countries: retracing the steps. *International Journal of Inclusive Education*, 2(1), 55-72.
- Kothari, C. R. (2004). *Research methodology: methods & techniques*. New Delhi: New Age International (P) Ltd.
- Kozulin, A. (2003). *Vygotsky's educational theory in cultural context*. Cambridge: Cambridge University Press.
- Kvale, S. (2007). *Doing interviews*. Los Angeles, [Calif.]: SAGE.
- Kvale, S., & Brinkmann, S. (2009). *Interviews: learning the craft of qualitative research interviewing*. Los Angeles, Calif: Sage.
- Lamport, M. A., Graves, L., & Ward, A. (2012). Special needs students in inclusive classrooms: The impact of social interaction on educational outcomes for learners with emotional and behavioral disabilities. *European Journal of Business and Social Sciences*, 1(5), 54-69.
- Landsberg, E. (2005). Visual impairment. *Addressing Barriers to Learning*, 329-346.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*: Cambridge university press.
- Mbukwa, J. (2009). *Inclusion of children with visual impairment in regular primary schools in Malawi: An investigation of how regular primary school teachers teach children with visual impairments in ordinary classrooms at Ekwendeni primary school*. Høgskolen I Volda.
- Mcguire, J. M., Scott, S. S., & Shaw, S. F. (2006). Universal design and its applications in educational environments. *Remedial and Special Education*, 27(3), 166-175.
- Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San Francisco, Calif: Jossey-Bass.
- Miles, S. (2011). Exploring understandings of inclusion in schools in Zambia and Tanzania using reflective writing and photograph. *International Journal of Inclusive Education*, 1087-1102.

- Mmari, T., Mzee, O., & Frankenberg, A. (2008). *Education for children with disabilities and the use of ICT for inclusive education in Tanzania*. Dar es Salaam: Embassy of Sweden.
- Mmbaga, D. R. (2002). *The inclusive classroom in Tanzania: Dream or reality?* Institute of International Education, Stockholm University.
- MoEC. (1995). *Education and training policy*. Dar es Salaam: The Adult Education Press.
- MoEVT. (2012). *Basic education statistics in Tanzania (BEST): National data*. Dar es Salaam: Ministry of Education-Press "A".
- MoEVT. (2009). *National strategy on inclusive education 2009-2017*. Dar es Salaam.
- Muvirimi, P. (2002). *Teacher's opinion's on cooperation in activities between children with hearing impairment and hearing children*. Unpublished MPhil. thesis in Special Needs Education, University of Oslo.
- Najjingo, H. (2009). *Challenges of accessing all-inclusive education services by children with disabilities (CWDs): A case of Mijwala Sub-County Ssembambule District*. Makerere University.
- NBS. (2013). *Population and Housing Census 2012. General Report*. Dar es Salaam, Tanzania: national Bureau of Statistics.
- NBS & ICF Macro. (2011). *Tanzania demographic and health survey 2010*. Dar es Salaam: NBS and Macro.
- Ngonyani, M. S. (2010). *Teachers' facilitation of learning for learners with disabilities in inclusive classrooms in Tanzania: Teachers' use of interactive teaching methods in inclusive classrooms*. Universiteti Oslo.
- Nydal, A. K. (2008). *The development of inclusive education in the Tanzanian primary school*. (In Comparative and International Education, Institute for Educational Research), Universiteti Oslo.
- Nyerere, J. K., & President, T. (1977). *The Arusha declaration ten years after*. Dar es Salaam: Government Printers.

- Okkolin, M. A. (2013). *Highly educated women in Tanzania: Costructing educational well-being and agency*. JYVÅSKYLÅ, University Library of Jyvåskylå.
- Onyango, E. (2013, December 18). Minister promises support for people with sight disability. *The Gurdian*, pp 1.
- Palmer, C. (2005, September). Educating leaners with vision impairemt in inclusive settings. In *international Congress Series* (VOL.1282, pp. 922-926). Elsevier.
- Peterson, J. M., & Hittie, M. M. (2010). *Inclusive teaching: The journey towards effective schools for all learners*. Boston: Pearson.
- Polat, F. (2011). Inclusion in education: A step towards social justice. *International Journal of Educational Development*, 31(1), 50-58.
- Punch, K. F. (2009). *Introduction to research methods in education*. Los Angeles, Calif: Sage.
- Ragin, C. C., & Amoroso, L. M. (2011). *Constructing social research: The unity and diversity of method*. Thousand Oaks: Pine Forge Press.
- Robson, C. (2007). *How to do a research project: A guide for undergraduate students*. Malden, Mass: Blackwell Pub.
- Rogoff, B. (1990). *Apprenticeship in thinking: Cognitive development in social context*: Oxford University Press.
- Rose, R. C. (2010). *Confronting obstacles to inclusion: International responses to developing inclusive education*. London: Routledge.
- Rujwahura, P. (2008). Personal communication with Palemon Rujwahura, Secretary General of Chawata. *Interviewed November, 13, 2008*.
- Senge, P. M. (2000). *Schools that learn*. London: Nicholas Brealey.
- Smidt, S. (2009). *Introducing Vygotsky: A guid for practitioners and students in early years education*. Abingdom: Routledge.

- Susan, C., Connie, E., Karen, S., & Valerie S. (2003). Teaching students with visual impairments: A guide for the support team. Retrieved from <http://www.sasked.gov.sk.ca/k/pecs/se/publications.html>.
- TFDPO. (2010). *National disability mainstreaming strategy: Towards an inclusive nation*. Dar es Salaam.
- Thomas, G., & Vaughan, M. (2004). *Inclusive education: Readings and reflections*. Maidenhead: Open University Press.
- Tungaraza, F. (2010). Climbing up the challenging hill from exclusion to inclusion: Teachers and administrator's attitudes towards intergration in Tanzanian primary schools. *Lwati: A Journal of Contemporary Research*, 7(1), 423-432.
- Tungaraza, F. (2012). Inclusive education in Tanzania: Are all learners identified and their needs known? *Lwati: A Journal of Contemporary Research*, 9(3).
- UN. (2006). Convention on the right of persons with disabilities. Retrieved from <http://www.un.org/disabilities/convention/conventionfull.shtml>.
- UNESCO. (1994). The UNESCO Salamanca statement and framework for action on special needs Education. Paris: UNESCO.
- UNESCO. (2003). Exclusion through inclusive approaches in education. A challenge and a vision. *Conceptual Paper*, Paris: UNESCO.
- UNESCO (Paris).(2008). *Overcoming inequality: Overcoming inequality: Why governance matters*. United Nations educational, scientific and cultural organization (UNESCO).
- UNESCO. (2009). Policy guidelines on inclusion in education. Paris: UNESCO.
- URT. (2004). National policy on disability. Dar es Salaam.
- Vygotskij, L. S., Rieber, R. W., Carton, A. S., & Bruner, J. S. (1987). *The collected works of L. S. Vygotsky*. New York: Plenum Press.
- Vygotsky, L. S. (1978). *Mind and society: The development of higher mental processes*. Cambridge, MA: Harvard University Press.



- Walliman, N. (2006). *Social research methods*. London: SAGE.
- Walliman, N. (2011). *Research methods: The basics*. London: Routledge.
- Webster, A., & Roe, J. (1998). *Children with visual impairments: Social interaction, language and learning*. London: Routledge.
- Yin, R. K. (2009). *Case study research: Design and methods*. Thousand Oaks: Sage.
- Yin, R. K. (2011). *Qualitative research from start to finish*. New York: Guilford Press.
- Zindi, F. (1997). *Special education in Africa*: Tasalls Publishing.
- Zulch – Knouwds, T. M. (2010). *Including learners with visual impairments in a Namibian mainstream secondary school*. Stellenbosch University.
- Zwald, K. J. (2008). *Perceptions of teachers of students with visual impairments on the importance of physical activity and its effect on their student' academic success and social interactions*. The University of Arizona.

# Appendices

## Appendix A: Semi-Structured Interview Guide for learners with visual impairments

### Background information

Age: .....

Sex: .....

Grade.....

### Interview Questions:

1. How did you get admission here?
2. To what extent do you feel safe in school? (a) Bad (b) Moderate (c) Good (c) Very good.
3. Do you think the infrastructures within the school, for example staircases, toilets, walkways, corridors, dormitories, and illustrations on the walls are conducive for your learning? (a)Yes (b) No (c) I don't know. If Yes/No would you please explain?
4. Do you get any kind of learning support from your peers sighted learners during the lesson? Yes/No. If Yes, what kind of support do you get? If No how do you manage by yourself?
5. Do you have enough teaching and learning materials in your class such as text books, hand-outs Manila sheets, Magnified glasses and brailed materials? Yes/No If Yes where do you get them? If No what do you do to manage the studies?
6. Do you have special equipment in the class? Yes/No. If Yes what are they? If No what important equipment do you lack?
7. Do you have a extra time with teachers after the lesson hour?
8. Tell me about your school yesterday, what do you think were the teachers' attitudes towards you? (a)Bad (b) Moderate (c) Good (d) Very good
9. How do you think the sighted learners' attitudes towards you? (a) Bad (b) Moderate (c)Good. (d) Very good
10. Do you face challenges through interaction process?
11. When facing challenges in school whom do you discuss with? (a) Teachers (b) Counselors  
(c) Parents (d) No-one (e) Others
12. Do you normally participate in extracurricular activities like sports and games in schools? Yes/No.If Yes what kind of extra curriculum activities do you participate in? If No why?

13. Do your parents collaborate with teachers in learning activities?

14. Do you think inclusive education is beneficial for you?

**Thank you for your time!**

## Appendix B: Semi -Structured interview guide for teachers

### Background information

Age: .....

Sex.....

Years of Experience.....

### Interview Questions:

1. Which class are you teaching?
2. Number of the learners in your class a) Total number b) Visually impaired c) Sighted learners.
3. How do you get the children with visual impairment in your school?
  - a) Direct from home b) from non-government organization c) from other schools d) from others sources..... Mention please
4. Are you trained to teach visually impaired learners? Yes/No
5. What kind of special teaching aids do you have for the visually impaired learners?  
Would you mentioned please.....
6. Do you think inclusive education is beneficial to visually impaired learners?
7. What challenges are you facing while teaching learners with visual impairments in inclusive classes?
8. When facing challenges in the class do you collaborate with your fellow teachers?
9. Do you volunteer extra time for visually impaired learners?
10. Do you think the infrastructures within the school favoured the children with visual impairments? Yes / No. If Yes why? If No why?
11. How does the visually impaired learner get support in the class during lesson? A) From fellow learners b) from teachers c) from others.....mention please
12. How is the participation of the visually impaired learners in the class? a) Poor b) moderate c) good
13. Do learners with visual impairments normally participate in extracurricular activities like sports and games in schools? Yes/No. If Yes what kind of extra curriculum activities do they participate in? If No why?

14 Do learners with visual impairments face challenges through interaction process?

15 Do you have a special program planned for the visually impaired children to improve their performance?  
Yes/No. If Yes what are they?

16. Do you collaborate with parents of visually impaired learners in relation to learning and participation at schools? Yes/No

**Thank you for your time!**

## **Appendix C: Semi -structured interview guide for sighted peers**

### **Background information**

Age: .....

Sex: .....

Grade.....

### **Interview Questions:**

1. How many visually impaired learners are there in your class?
2. Do you feel comfortable studying with them in the same class? Yes/No
3. Do you think studying together with VI is beneficial for them?
4. Do visually impaired learners in your class use any of the specialized equipment? Mention please if any
5. Who support them in the class? A) Fellow learners b) teachers c) others ....mention please
6. What are the attitudes of the sighted learners towards visually impaired learners? (a) bad (b)moderate (c)good. (d) very good
7. Do you engage with them in the group work in the class?
8. Do they have an extra time with teachers?
9. Do learners with visual impairments normally participate in extracurricular activities like sports and games in schools? Yes/No. If Yes what kind of extra curriculum activities do they participate in? If No why?
10. Do learners with visual impairments face challenges through interaction process?

**Thank you for your time!**

## **Appendix D: Observation guide**

### **The main question:**

**“What are the challenges facing the children with visual impairments in learning and participation in inclusive primary schools?”**

The following is the check list that supported/ guided to answer the research problem above:

#### **1. Outside the classroom**

- School conditions; for example, playgrounds, tracks, staffroom, library etc.
- Physical structures; for example staircases, toilets, walkways, corridors, dormitories
- Illustrations on the walls

Are these facilities available in the school according to the needs of the visually impaired learners in the inclusive school?

- The interaction of visually impaired learners with their peers outside the classroom
- Assistance given to visually impaired child outside the classroom during break time

#### **2. Inside the Classroom**

- How many visually impaired learners in classroom?
- Physical environment of the class: Are blackboard, chairs, tables, illustration, maps designed in a way that supports the learning and participation of visually impaired learners?
- Sitting arrangement in the class: Position of the visually impaired children, seating at the back or in front?
- Teacher lesson plan: Are there special plan for the children with visual impairments?
- Assistance devices and materials
- Teacher- visually impaired learners interaction
- Peers sitting close to visually impaired learners, do they engage in conversation?
- Other sighted learners/ with visually impaired learners interaction.
- Adjusted special methods used to meet the needs and interests of visually impaired learners in learning and participation.

## Appendix E: Approval letter from NSD

### Norsk samfunnsvitenskapelig datatjeneste AS

NORWEGIAN SOCIAL SCIENCE DATA SERVICES



Harald Hårfagres gate 29  
N-5007 Bergen  
Norway  
Tel: +47-55 58 21 17  
Fax: +47-55 58 96 50  
nsd@nsd.uib.no  
www.nsd.uib.no  
Org.nr. 985 321 884

Kari Nes  
Institutt for samfunnsvitenskap Høgskolen i Hedmark  
Postboks 4010 Bedriftssenteret  
2318 HAMAR

Vår dato: 15.01.2014

Vår ref: 36680 / 2 / KH

Deres dato:

Deres ref:

#### TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 15.12.2013. Meldingen gjelder prosjektet:

36680

*Children with Visual Impairments in Tanzania: An investigation on the challenges faced by visual impaired Children in learning and participation in inclusive primary school in*

*Behandlingsansvarlig*

*Høgskolen i Hedmark, ved institusjonens overste leder*

*Daglig ansvarlig*

*Kari Nes*

*Student*

*Devota Kiomoka*

Personvernombudet har vurdert prosjektet, og finner at behandlingen av personopplysninger vil være regulert av § 7-27 i personopplysningsforskriften. Personvernombudet tilrår at prosjektet gjennomføres.

Personvernombudets tilråding forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeeskjemaet, korrespondanse med ombudet, ombudets kommentarer samt personopplysningsloven og helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema, <http://www.nsd.uib.no/personvern/meldeplikt/skjema.html>. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, <http://pvo.nsd.no/prosjekt>.

Personvernombudet vil ved prosjektets avslutning, 15.05.2014, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Vigdis Namtvedt Kvalheim

Kjersti Haugstvedt

Kontaktperson: Kjersti Haugstvedt tlf: 55 58 29 53

Vedlegg: Prosjektvurdering

*Dokumentet er elektronisk produsert og godkjent ved NSDs rutiner for elektronisk godkjenning.*

*Avdelingskontorer / District Offices*

*OSLO NSD, Universitetet i Oslo, Postboks 1055 Blindern, 0316 Oslo. Tel: +47-22 85 52 11. nsd@uio.no*

*TRONDHEIM NSD, Norges teknisk-naturvitenskapelige universitet, 7491 Trondheim. Tel: +47-73 59 19 07. kyrre.svarva@svt.ntnu.no*

*TROMSØ NSD, SVF, Universitetet i Tromsø, 9037 Tromsø. Tel: +47-77 64 43 36. nsdmaa@sv.uit.no*



## Appendix F: Permission letter from university college of Hedmark



Høgskolen i Hedmark  
Hedmark University College

### Master's program in adaptive education

#### Request for access to data collection for a master's thesis

In our master's program in adaptive education at Hedmark University College, Norway, students in their final year conduct an independent inquiry for their master's thesis.

Our student *Devota Kiomoka* is in her final year and will need access to collect empirical material from schools for her master's thesis. The working title for her project is:

*An investigation on the challenges facing learners with visual impairment in learning and participation in inclusive schools*

All data will be anonymised before use. The results will be treated confidentially, and no findings will be made public unless the parties involved have given their permission.

Hedmark University College is hoping that your institution will accept collection of the data necessary for *Devota Kiomoka's* research work. Thank you!

Questions can be directed to the responsible person below.


Hamar, December 03, 2013

*Kari Nes*

Kari Nes  
Professor of Education  
Faculty of Education and Natural Sciences  
Hedmark University College  
Tel +47 62517741  
Mob +47 95779402  
[kari.nes@hilhm.no](mailto:kari.nes@hilhm.no)

**Appendix G: Permission Letter from the Regional Administration and Local Government**

**THE UNITED REPUBLIC OF TANZANIA  
PRIME MINISTER'S OFFICE  
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT**



Phone Number: [redacted]  
In reply please quote: [redacted]

REGIONAL COMMISSIONER'S OFFICE,  
P.O. Box. [redacted]  
[redacted]

Ref. No. FA ..... Date 22/01/2014

District Administrative Secretary,  
.....

**RE: RESEARCH PERMIT**

Pro/Dr./Mr./Mrs/Ms/Miss: DEVOTA JOHN KIOMOKA ..... is a student/researcher from Hedmark university college ..... has been permitted to undertake a field work research on children with visual impairments in Tanzania: An investigation on the challenges faced by visual impaired children in learning and participation in inclusive primary school. ..... from 24/01 ..... 2014 to 31/02 ..... 2014.

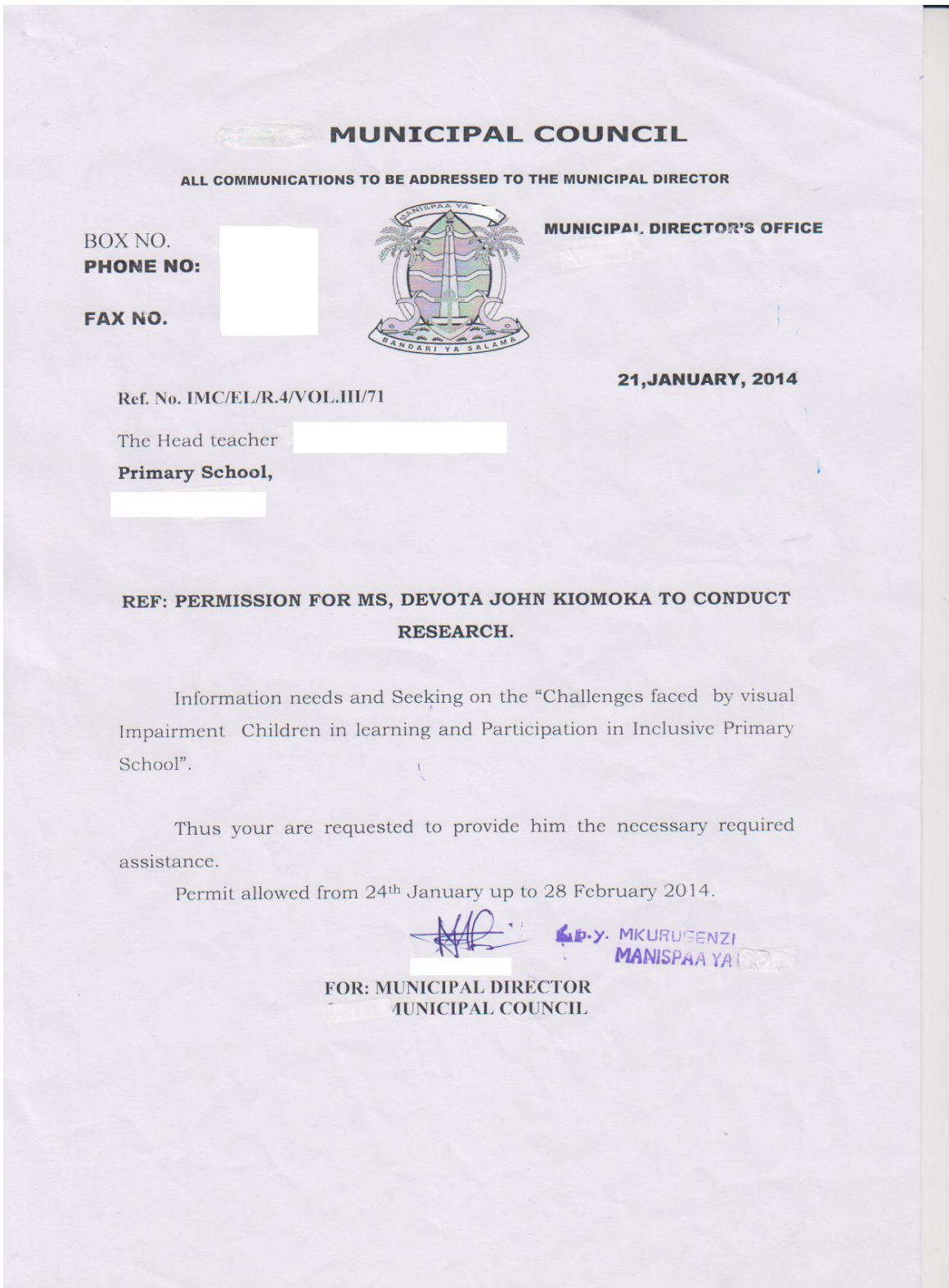
I kindly request your good assistance to enable him/her to complete his/her research.

.....  
**For; Regional Administrative Secretary**  
[redacted]

✓ Copy: Municipal Director,  
.....  
[redacted]

**Principal/Vice Chancellor**

**Appendix H: Permission Letter from the Municipal Council**



**MUNICIPAL COUNCIL**

ALL COMMUNICATIONS TO BE ADDRESSED TO THE MUNICIPAL DIRECTOR

BOX NO.  
PHONE NO:  
FAX NO.



**MUNICIPAL DIRECTOR'S OFFICE**

**21, JANUARY, 2014**

Ref. No. IMC/EL/R.4/VOL.III/71

The Head teacher  
**Primary School,**

**REF: PERMISSION FOR MS, DEVOTA JOHN KIOMOKA TO CONDUCT RESEARCH.**

Information needs and Seeking on the "Challenges faced by visual Impairment Children in learning and Participation in Inclusive Primary School".

Thus your are requested to provide him the necessary required assistance.

Permit allowed from 24<sup>th</sup> January up to 28 February 2014.

**M.P.Y. MKURUGENZI  
MANISPAA YA**

**FOR: MUNICIPAL DIRECTOR  
MUNICIPAL COUNCIL**

**Appendix I: Introduction letter to the teachers/respondents**

**LETTER OF INTRODUCTION**

To: The Head teacher/Class teacher

Dear sir/Madam,

**RE: Permission to conduct a research project in your school/class**

As the heading above is concerned, I am Devota John Kiomoka, a student at the Hedmark University College in Norway studying for a Master's degree in Adaptive Education. For the partial fulfilment for my master program, I intend to conduct a research project on the topic: *Children with visual impairments in Tanzania: An investigation of the challenges which children with visual impairments face in learning and participation in inclusive primary schools*. I chose your school to be the site of my study, because it is one of the schools practising inclusive education in the district.

The main purpose of this study is to investigate the challenges faced by visually impaired children in learning and participation in inclusive primary schools. However, during my field work I would like to work with 15 learners with visual impairments from grade three to grade seven, 6 teachers (3 general and 3 specialists trained) and 10 sighted peers from grade four to grade seven.

The result of this study will be for the benefit of the investigator for the fulfillment of the required program in Hedmark University College. However, it will be helpful for both your school and other schools which are practicing inclusive education and those which are in the process. With assurance, all issues observed and discussed will be treated with confidentiality. Also the participation in the study will be voluntary and the respondents will be free to withdraw at any time they wish. After the finalization of this study, with your wish, you will be welcomed to have a copy of it.

It is my hope that, my request will be considered positively.

I am looking forward for your response.

Yours faithfully,

Devota John Kiomoka.

+255784313262

Email: devotakiomoka@yahoo.com

## Appendix J: Letter to the parents

To: The Parents/Guardian

Dear parent of \_\_\_\_\_

I am Devota John Kiomoka, a master student at Hedmark University College. I am intending to conduct a field work with the topic: **Children with Visual Impairments in Tanzania: An investigation of the challenges which children with visual impairments face in learning and participation in inclusive primary schools**

I have been granted permission by the Regional Administration and Local Government to conduct research in one of the schools in your district from 19 January to 15 March 2014. Kindly I am requesting you to allow your child to participate in my study.

The number of participants in my study will involve 15 learners with visual impairments, 6 teachers and 10 sighted learners. However, participation in the study is voluntary; your child can withdraw at any time he/she wish to, without any kind of penalty. I will collect data using two methods of data collection that is interview and observation.

With your agreement data will be recorded using tape recorder. The result of the participation will be confidential; pseudonyms will be used as no name of the child will be mentioned. Moreover, no one will have access to the materials recorded but only the investigator and sometimes my supervisor (Kari Nes) who can also be reached by email address: [kari.nes@hihm.com](mailto:kari.nes@hihm.com) and mobile no. 62517741. The tape recorder will immediately be destroyed after the transcription of the data. This study is registered by Norwegian Social Sciences Data Services (NSD).

To show your agreement which allow your child to participate in the study, please sign here below.

I have received written information and am willingly allowing my child to participate in the study.

-----

Parents/Guardian's signature

Date: -----

**Appendix K: Informed consent form**

I have received oral and written information about the study of children with visual Impairments in Tanzania: An investigation of the challenges which children with visual impairments face in learning and participation in inclusive primary schools, and I would like to:

Participate,

Full name of the participant's teacher.....

Signature, date.....

Mobile number.....

Do not want to participate,

Name.....

Signature, date.....