ASSESSMENT OF TEACHERS' SKILLS IN SUPPORTING VISUALLY IMPAIRED CHILDREN IN PRIMARY SCHOOLS IN DAR ES SALAAM REGION, TANZANIA

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A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF DEGREE OF MASTER OF EDUCATION IN ADMINISTRATION, PLANNING AND POLICY STUDIES OF THE OPEN UNIVERSITY OF TANZANIA

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CERTIFICATION

The undersigned, certifies that he has read and hereby recommends for acceptance by the Open University of Tanzania a dissertation titled “Assessment of the Teachers’ Skills in Supporting Visually Impaired Children in Primary Schools in Dar es Salaam Region,” in partial fulfilment of the requirements for the degree of Master of in Education in Administration, Planning and Policy Studies (MED-APPS).

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Dr. Cosmas Mnyanyi

(Supervisor)

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Date

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DECLARATION

I, **Hadija Chaurembo,** do hereby declare that this dissertation is my own original work and that it has not been presented and will not be presented to any other University for a similar or any other degree award.

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Signature

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Date

DEDICATION

This work is dedicated to my parents

ACKNOWLEDGEMENT

This dissertation caters my long desire for professional achievement. In spite of being tough and challenging, my personal struggle, desire and encouragement of my supervisor made it possible. Actually my supervisor, Dr. Cosmas Mnyanyi owes my due respects. God bless him. I would like to give my sincere thanks to my family for their tolerance and contributions during my studies. They really encouraged and supported me. I am proud of them. I also thank my fellow students and co-workers for their cooperation during the whole life of studies.

ABSTRACT

This study was about assessing teachers skills in supporting visually impaired children enrolled in primary schools in Dar es Salaam. The aims of this study were: to determine teachers skills in supporting children with visual impairment; to identify strategies in developing teachers' skills in supporting children with visual impairment; to examine support services provided to children with visual impairment; and to identify challenges facing children with visual impairment in developing their skills. The study used questionnaire, interview, observation and documentary review methods of data collection. The data was collected from 70 respondents. The findings revealed that primary schools children with visual impairment were supported by trained teachers in special education. These teachers of children with visual impairment had knowledge and specific skills related to transcribing, modifying, and preparing teaching materials that enabled them in planning and managing classroom activities. Teachers had challenges related to inadequate availability of teaching and learning materials. On the other hand children with visual impairment were facing challenges related to unfriendliness physical infrastructure, and large number of children in classroom. The revealed the need for teacher knowledge and skills to be complemented with availability of teaching and learning resources. The study recommends the government to further develop policies supporting education for visually impaired persons and invest in children with visual impairment education by addressing challenges like friendly physical infrastructure and providing learning and teaching materials. It is further recommends that in the era of ICT teachers of children with visual impairment need to have opportunity to learn ICT in order to facilitate teaching and learning of ICT skills to children at their early ages.

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LIST OF ABBREVIATIONS

MED-APPS	Master Degree in Education in Administration, Planning and Policy
SPSS	Statistical Package for Social Sciences
NGO	Non-governmental organizations

CHAPTER ONE

1.0 BACKGROUND INFORMATION

This chapter introduces background information of the study. It states background to the study and statement of the problem. It also reveals objective of the study, significance of the study and organisation of the study.

Background to the Study

This study is about assessing teachers' skills in supporting visually impaired children in primary schools in Dar es Salaam, Tanzania. Visually impaired students are the consequences of a functional loss of vision, rather than the eye disorder itself (Komba & Ndibalema 2009). Eye disorders which can lead to visual impairments can include retinal degeneration, albinism, cataracts, glaucoma and muscular problems that result in visual disturbances, corneal disorders, diabetic retinopathy, congenital disorders, and infection (Davis & Hopwood, 2002). The effect of visual problems on a child's development depends on the severity, type of loss, age at which the condition appears, and overall functioning level of the child (Khurshid & Sufiana, 2011). Many children who have multiple disabilities may also have visual impairment resulting in motor, cognitive, and/or social developmental delays (Taylor, Pezzullo & Keeffe, 2006).

A young child with visual impairment has little reason to explore interesting objects in the environment and, thus, may miss opportunities to have experiences and to learn. This lack of exploration may continue until learning becomes motivating or

until intervention begins (Khurshid & Sufiana, 2011). Because the child cannot see parents or peers, he or she may be unable to imitate social behaviour or understand nonverbal cues (Davis & Hopwood, 2002).

Formal education for persons with visual impairment has a history of over 60 years in Tanzania. However, education for persons with visual impairment has never reached the majority of this group. Education for the visually impaired was introduced in the 1950's in segregated settings, confined to special boarding schools, and mostly run by philanthropic organizations, especially non-governmental organizations (NGO) and faith based organizations (FBO). The Anglican Church started the first school for the blind in 1950 (Bagandanshwa, 1999; Kapinga, 2012; Mboya & Possi, 1996; Mnyanyi 2014).

The number of persons with visual impairment in Tanzania is estimated to cover 1.6 million. About half a million of these people are children aged 7-13 (Mnyanyi, 2014). However, only about 1% of these children are enrolled in schools (Mnyanyi, 2014). However, special schools and units are too few and in most cases they are far away from the children's homes. More and more regular schools are enrolling children with visual impairment, but school lack financial resources, tactile teaching materials and trained special education teachers. Children with visual impairment enrolled schools seldom get enough support and often fail in examination (Mnyanyi (2014). Basing on these arguments, the question which may be raised immediately is, do teachers teaching pupils with visual impairment have enough skills to support their learning? This study examines this question with a quest of finding out the

answers that can contribute to improvement of teaching and learning among teachers and visually impaired pupils respectively.

Statement of the Problem

Teachers play a central role in promoting participation and reducing underachievement in schools, particularly where there are children who might be perceived as needing special support to teach (Spillane, 2000). Some children with low vision read as well or better than their peers without visual impairments or blindness when using magnifier glasses (Richardson & Placier, 2001). There is relatively low performance of students with visual impairments or blindness on academic tests may be due to lagging reading skills. Specific eye anomalies are more detrimental to reading performance than others (Saxe, Gearhart & Nasir, 2001). Students with visual impairments or blindness face unique challenges when reading and teachers need special skills to support their learning.

In Tanzania, like other places teachers are encouraged to use learner-centered approach, however teachers are still using the traditional ways of teaching (Mnyanyi, 2014; Msonde, 2011; Saxe, Gearhart & Nasir, 2001). Use of traditional teaching methods leads to learners having insufficient learning as teachers are likely to use unsatisfied teaching and learning material. The situation is bad for children with disabilities included in regular classes. Lack of effectiveness in provision of inclusion education services results from the recruitment of large number of teachers without knowledge and skills in supporting children with special needs and disabilities. Students with visual impairment do not perform better in their final

examination and therefore expelled from education system (Mwakyeja, 2013). Generally, little is known on the teachers' skill development for visually impaired students in Dar es Salaam. It is also unclear whether teachers' skills support visually impaired children enrolled in primary schools in Dar es Salaam. Therefore, this study is built in this ground to assess teachers' skills in supporting visually impaired children in primary schools in Dar es Salaam region.

General Objective of the Study

The general objective of this study is to assess teachers skills in supporting visually impaired children enrolled in primary schools in Dar es Salaam.

1.3.1 Specific Research Objectives

i. To determine teachers skills in supporting children with visual impairment
ii. To identify strategies in developing teachers' skills in supporting children with visual impairment
iii. To examine support services provided to children with visual impairment
iv. To identify challenges facing children with visual impairment in developing their skills.

Research Questions

i. To what extent do teachers' skills support the learning of children with visual impairment?
ii. What are the strategies needed in developing teachers' skills in supporting children with visual impairment?

iii. What are the services provided to children with visual impairment?

iv. What are challenges facing children with visual impairment in developing their skills?

Significance of the Study

This study helps both policy designers and implementers to understand various issues relating to children with visual impairment for their efficient and effectiveness in the process of fulfilling their duties. In other words, the findings help the policy makers to rethink and put into considerations the visually impaired primary school pupils. The findings of this study contributes profoundly to the existing body of knowledge and literature related of teachers' skills development in supporting visually impaired children who are enrolled in primary schools in Tanzania. This study is also beneficial to the academic institutions and individuals who might be interested in carrying out related researches in the future. This study is also beneficial to me as it is one of the requirements of completion of my master degree in education in administration, planning and policy studies.

Limitations of the Study

The data which was used in the study was collected in a span of one months. This implies that even though findings of the study depicted the situation as it was at that particular time, a study of a longer period of time would produce more representative results. Due to the vast geographical dispersion of schools, the researcher was not in a position to have a larger sample size for better representation. However, the sampled school is the oldest in Tanzania with experience of including children with

visual impairment represent the sampled population for the study. There are other factors that influence academic achievement of children with visual impairment in Tanzania; however the researcher was limited to teachers' skills in supporting visually impaired children in primary schools in Dar Es Salaam due to the limited study period.

Delimitations of the Study

There are many factors influence children with visual impairment in accessing and completing primary education cycle in Tanzania; however, this study only focused on the assessment of teachers skills in supporting children with visual impairment and only in one public school in Dar Es Salaam region in Tanzania. A study of a wider area would produce more representative results.

Organisation of the Study

This study is organised into five chapters. Chapter one gives details on background information and the statement of the research problem. Chapter two deals with literature review. Chapter three provides research methodology. Chapter four dwells on findings, analysis and discussion of the study. The last chapter is chapter five which deals with summary, conclusions, recommendations of the study, and areas for further research.

CHAPTER TWO

2.0 LITERATURE REVIEW

This chapter deals with literature review. It gives details on definitions of the key terms and theory of the study. It also provides details on theoretical and empirical literature related to this study. The chapter also dwells on research gap as well as conceptual framework of the study.

2.1 Definition of the Key Terms

This part gives details on the definitions of the key terms. These include visual impairment, teacher and skill.

2.1.1 Visual Impairment

Visual impairment refers to a significant loss of vision, even though the person may wear corrective lenses (Khurshid & Sufiana, 2011). Visual impairment includes two main categories: blindness and low vision (Taylor, Pezzullo & Keeffe, 2006). According to Pascolini and Malioti (2011) visual impairment in 2010 is a major health issue that is unequally distributed among the WHO regions; the preventable causes are as high as 80% of the total global burden. Globally, the number of people of all ages visually impaired is estimated to be 285 million, of whom 39 million are blind, with uncertainties of 10–20%. People 50 years and older represent 65% and 82% of visually impaired and blind, respectively. The major causes of visual impairment are uncorrected refractive errors (43%) followed by cataract (33%); the first cause of blindness is cataract (51%). On the other hand Waddell (1998)

concluded that cataract and corneal damage cause half of all subnormal vision, which is avoidable for both. Cataract surgery needs to be upgraded. To prevent corneal visual loss, primary health care should continue to be expanded, especially measles immunisation and nutrition care; rubella immunisation should be added. Special education needs to be greatly expanded. Public perceptions need changing if results are to be improved and help offered to more than the present minority.

2.1.2 Teacher

A teacher is has been defined as a person who have knowledge skills and special straining in teaching, explaining and educating. The teacher is the person who is capable of creating behavioural change in terms of cognitive, psychomotor as well affective domain (Mbise, 2008). The teacher is an expert who is capable of imparting knowledge that will help learners to build, identify and to acquire skills that will be used to face the challenges in life. The teacher also provides to the learners knowledge, skills and values that enhance development (Senge, 2000).

2.1.3 Skill

According to Green (2011) skill have no single definition, when people talk about skills refers to many meanings, numerous synonyms such as “ability”, “competence”, “knack”, “aptitude” and “talent”, and varied imprecise translations in other languages. Green (2011) defines skill as a personal quality with three key features: productive (using skill is productive of value); expandable (skills are enhanced by training and development); and social (skills are socially determined). Skill means the ability to apply knowledge and use know-how to complete tasks and solve

problems. In the context of the skills are described as cognitive involving the use of logical, intuitive and creative thinking or practical involving manual dexterity and the use of methods, materials, tools and instruments. In this study skills are seen as those attributes of teachers that help them to facilitate learning to children with visual impairment. These skills are socially constructed and learnt in a social world. Teachers in this sense have to be trained to support children with visual impairment.

2.1.4 Children

According to The African Child Policy Forum (ACPF), a child a child means every human being below the age of 18 years. In this context, children mean pupils. Thus those children who are studying at primary schools in Tanzania are taken as children under this context.

2.2 Theories of the Study

This study had employed two theories. These theories namely social learning theory and socio-cultural learning theory were adopted by this study due to its importance in human learning.

2.2.1 Social Learning Theory

The teachers' skills are based on the application of Bandura's (1997) social learning theory to facilitate learning among visually impaired children. Bandura's theory emphasizes the influence of reinforcement theory, cognitive information processing, and classical condition on human behaviour. Cope (2007) says that social learning theory assumes that people's personalities and behavioural repertoires can be explained most accurately on the basis of their unique learning experiences while

still acknowledging the role played by innate and developmental processes. Bandura (2000) asserts that social learning theory also assumes that humans are intelligent, problem solving individuals who strive at all times to understand the reinforcement that surrounds their actions and who in turn control their environments to suit their own purposes and needs. They include the following aspects:

2.2.1.1 Genetic Endowments and Special Abilities

Genetic endowments are inherited qualities such as sex, race, and physical appearance. Special abilities, such as intelligence, athletic ability, musical, and artistic talents, result from the interaction of genetic factors and exposure to selected environmental events. All of these can facilitate the learning among visually impaired children.

2.2.1.2 Environmental Conditions and Events

Factors in this category are generally outside of the person's control and can involve a wide variety of cultural, social, political, and economic forces. For example, family traditions, such as attending a particular college or selecting a certain college major, can influence which college and major he or she selects. This can be associated also with the various supports from different people or stakeholders to visually impaired children and the way they affect their learning.

2.2.1.3 Instrumental and Associative Learning Experiences

Instrumental learning experiences involve antecedents, behaviours, and consequences. Antecedents include the genetic endowments, special abilities, and environmental conditions and events previously discussed as well as the

characteristics of a particular task or problem. Behavioural responses include cognitive and emotional responses as well as overt behaviour. Consequences include immediate and delayed effects produced by the behaviour as well as “self-talk” about those consequences (Evans, 2006). Associative learning experiences occur when a neutral stimulus is paired with a positive or negative stimulus or consequence that can affect skills that help to facilitate among the visually impaired learners.

2.2.1.4 Task Approach Skills

In recent years a debate has developed over which approaches to structuring and planning and implementing lessons are more effective. Task-based learning has some clear advantages: the students are free of language control. In all three learning stages present, practice produce stages, students must use all their learning resources for example in languages rather than just practising one pre-selected item; a natural context is developed from the students' experiences with the language that is personalised and relevant to them; it is a strong communicative approach where students spend a lot of time communicating; and it is enjoyable and motivating (Wills, 2007). Task approach skills include the person’s work habits, mental set, emotional responses, cognitive processes, and problem-solving skills. Task approach skills influence outcomes and are themselves outcomes of career decisions among facilitators of visually impaired children.

2.2.2 Socio-Cultural Learning Theory

Socio-cultural theory of learning attempts to account for the processes through which, learning and development take place. Vygotsky (1982) reiterates the fact that

social interaction with cultural artefacts forms the most important part of learner's psychological development .Cultural tools or artefacts include all the things we use, from simple things such as a pen, spoon, or table, to the more complex things such as language, traditions, beliefs, arts, or science (Franzoi 2000). Hence this study intends to show how socio-cultural factors affect skills used to facilitate visually impaired children.

2.3 Empirical Studies

Some empirical studies have been taken into consideration of scrutiny. These include the following which are divided into two main categories: empirical literature review worldwide and empirical literature review in Tanzania.

2.3.1 Empirical Studies Review Worldwide

Davis and Hopwood (2002) conducted study on including children with visual impairment in the mainstream primary school classroom. The inquiry comprised a multiple case study of children with visual impairment in 17 mainstream primary schools. Classroom observation and interviews were the main methods used. Findings revealed that the provision of an adequate additional support; inclusion in the main learning processes taking place in the classroom; and good communication between the teaching team. The study did not indicate the teachers' skills development on supporting visually impaired children enrolled in primary schools in Dar es Salaam. This study aimed to fill the gap.

Khurshid and Sufian (2011) conducted a study on perception of visually impaired youth about familial, academic and caregivers support. The study aimed to explore

the difference in perception of support of visually impaired youth living in the residential institute. A questionnaire consisting of 28 items was developed through standardized procedure and was used for data collection from 50 students. The study found that visually impaired male and female students experienced lack of social support by caregivers and there was no cooperative attitude of caregivers. It was further found that students who stayed long hours in hostel faced more difficulties and students who were in higher education faced more problems as compared to students of secondary and intermediate level. The study also indicated that visually impaired students perceived lack of social support from people were close to them. The study did not indicate the teachers' skills development on supporting children with impaired visual enrolled in primary schools in Dar es Salaam. This study aimed to fill the gap.

Nimmo (2008) conducted a study on examining the factors of successful inclusion of students with vision impairment. The study used method of reviewing empirical studies in investigating the inclusion of students with vision impairment in regular schools. It examined the factors required for successful inclusion, the necessary strategies to achieve successful learning outcomes, the barriers to inclusion and the alternatives to inclusion. It was discovered that while many researchers support the concept of inclusion, there is still much work required to overcome the barriers that are prohibiting successful inclusion for students with vision impairment. The study did not indicate the teachers' skills development on supporting children with impaired visual enrolled in primary schools in Dar es Salaam. This study aimed to fill the gap.

Rooks-Ellis (2014) conducted a study on the inquiry-based education for students with visual impairment. The purpose of the study was to identify and synthesize studies of evidence-based practices for working with students with visual impairment in the science classroom. Expanding a comprehensive literature search conducted in 1992, 10 empirical reports were found and reviewed. A synthesis of the results showed strong support for inquiry-oriented approaches to science instruction for children with disabilities. Evidence also was found that knowledge of science pedagogy for children with disabilities is continuing to increase; however, the literature to support evidence-based methodology for students with visual impairment in the science classroom is sparse. The study did not indicate the teachers' skills development on supporting children with impaired visual enrolled in primary schools in Dar es Salaam. This study aimed to fill the gap.

Akakandelwa and Joseph (2011) conducted a study on provision of learning and teaching materials for pupils with visual impairment: Results from a National Survey in Zambia. The study was aimed at determining the provision of learning and teaching materials for pupils with visual impairment in basic and high schools of Zambia. A survey approach utilizing a questionnaire, interviews and a review of the literature was adopted for the study. The findings demonstrated that most schools in Zambia did not provide adequate and suitable learning and teaching materials to pupils with visual impairment. Further, many schools did not have resource rooms for storage and use of learning and teaching materials for these pupils. Though most schools have a policy for procurement of learning and teaching materials, their budgetary allocations for such activities are usually too small or non-existent.

Consequently, most children with visual impairment appear to perform poorly in their studies and are required to drop science and mathematics subjects due to lack of teaching and learning materials. The study did not indicate the teachers' skills development on supporting children with impaired visual enrolled in primary schools in Dar es Salaam. This study aimed to fill the gap.

Zwald (2008) conducted a study on perceptions of teachers of students with visual impairments on the importance of physical activity and its effect on their students' academic success and social interactions. The purpose of this study was to examine the perceptions of itinerant teachers of students with visual impairments about the importance of physical activity for their students with visual impairments and its effect on academic success and social relationship. Data was gathered from 175 teachers of students with visual impairments concerning their perceptions regarding the importance of physical activity and obesity and their relationship with academic success and social relationships. The teachers indicated that physical activity for their students is very important. They described a multitude of barriers that account for a lack of involvement in the general physical education classes in which they were enrolled. Teachers reported on their own personal physical activity levels in relationship to the importance they placed on their students' need to be active. The teachers did not indicate that being overweight was a particular issue with their visually impaired students, but they acknowledged that being overweight and a lack of physical activity create additional barriers for academic success and appropriate social relationships. The teachers also reported that the same barriers in physical education classes and access to recreation activities in the community that have been

listed in past research studies were still in existence, and these barriers were also part of their dilemma in creating positive physical activity experiences for their students who are visually impaired. The study did not indicate the teachers' skills development on supporting children with impaired visual enrolled in primary schools in Dar es Salaam. This study aimed to fill the gap.

Erickson *et al* (2007) conducted a study on literacy in early intervention for children with visual impairments: insights from individual cases. A qualitative case study design was used to investigate the ways in which two early interventionists supported emergent literacy development for infants and toddlers with visual impairment. Field notes, interviews, and document reviews were used to collect data for this study. The study found that reading was becoming a routine interaction. It was further found that interaction styles of caregivers of children with visual impairment and blindness, most of the language interactions between the children and early interventionists involved labelling objects and actions with some simple descriptions. Moreover, the study found that interventionists expressed interest in helping children achieve functional outcomes.

The study did not indicate the teachers' skills development on supporting children with impaired visual enrolled in primary schools in Dar es Salaam. This study aimed to fill the gap.

Scott (2009) conducted a study on undergraduate educational experiences: the academic success of college students with blindness and visual impairments. The

purpose of the qualitative study was to explore how fifteen students with blindness and visual impairments experienced their engagement in undergraduate studies at four 4-year universities and perceived their success. Findings from this study demonstrate that participants' understandings and experiences with blindness varied and their subsequent adjustment and transition also differed. Participants described several factors that facilitated the creation of positive educational experiences during their undergraduate programs: positive exposure to a new region of the country, positive peers, supportive departments and professors, financial opportunities, and welcoming and diverse campus environments. As these students transitioned to the university, they utilized accommodations and services provided by Disability Students Services (DSS) to facilitate their access to the academic environment. The undergraduate students also described challenging experiences, including feeling academic discrimination, a sense of isolation, limited campus accessibility, and peer interaction issues. There were other support systems that facilitated participant academic success, such as mentors, family, administrators, and staff. The study did not indicate the teachers' skills development on supporting children with impaired visual enrolled in primary schools in Dar es Salaam. This study aimed to fill the gap.

2.3.2 Empirical Studies Review in Tanzania

The need for teachers to change their teaching practices is increasing. According to Mnyanyi (2014) teacher practices are important in facilitating teaching and learning among children with visual impairment. Mnyanyi (2014) conducted a study on changing teachers' practices in regular schools enrolling children with visual impairment in Tanzania. The general aim of the study was to contribute to increased

knowledge and understanding about how teachers can change their teaching practices and thus facilitate the learning of children with visual impairment included in regular classrooms as they participate in an action research project. The project was conducted in a primary school in a poor rural region with a high frequency of blindness and visual impairment. The teachers who participated in the collaborative action research project were the 14 teachers who taught blind or visually impaired pupils in grades 4 and 6, in total 6 pupils. Empirical data was collected with questionnaires, interviews, observations and focus group discussions. The findings of the study show that the teachers managed to change their teaching practices through systematic reflection, analysis and collaboration.

The teachers produced a variety of tactile teaching materials, which facilitated the learning of the pupils with visual impairment. The pupils learned better and felt more included in the regular classes. The teachers gained new knowledge and skills. They grew professionally and started to collaborate with each other. However, this study is about teachers' skills development on supporting children with impaired visual enrolled in primary schools in Dar es Salaam.

Gutman (2007) conducted a study on the obstacles encountered by Tanzanian visually impaired women in accessing and gaining an education. The study used qualitative method largely primary data generated from visually impaired women in Dodoma and Tabora regions as key informants. It employs two methods of data collection instruments namely interviews and documentary survey. Basically this study is concerned to gain a fuller understanding of the struggle that Tanzanian

visually impaired women have faced in gaining a place in school and obtaining an education, the benefits that they perceive an education to give them, the changes that they believe are necessary to improve their access and the content of the education they feel they should receive in order to ensure that they are able to realize their capabilities and contribute fully to their community and their society. It is anticipated that the way in which the identity of visually impaired women is socially constructed has served to inhibit their access to education. His study was gender biased. The study did not indicate the teachers' skills development on supporting visually impaired children enrolled in primary schools in Dar es Salaam. This study aimed to fill the gap.

Macha (2002) conducted a study on gender, disability and access to education in Tanzania. Semi structured interviews were used to generate the primary data for the study. 58 visually impaired women and 26 parents/guardians participated in the research, as well as other 36 key informants. Research findings reveal various obstacles visually impaired women in Tanzania encounter in their struggle for accessing and gaining education. These include cultural, social, economic, political and physical difficulties. The findings further highlight outcomes of the educational obstacles on the lives of visually impaired women; reviewing the coping strategies they use in their struggle for survival, and record their views about the ways their education could be improved. Despite the time factor as one of the difference between these two studies, the former study also did not indicate the teachers' skills development on supporting visually impaired children enrolled in primary schools in Dar es Salaam. This study aimed to fill the gap.

2.4 Research Gap and Synthesis

Empirical studies reviewed by this study reveal that most of the studies were conducted outside Tanzania. These includes Scott (2009) who conducted a study on undergraduate educational experiences; Erickson *et al* (2007) who conducted a study on literacy in early intervention for children with visual impairments; Zwald (2008) who conducted a study on perceptions of teachers of students with visual impairments on the importance of physical activity and its effect on their students' academic success and social interactions; and Rooks-Ellis (2014) who conducted a study on the inquiry-based education for students with visual impairment, to mention but few. Few studies were conducted in Tanzania, these included Macha (2002) who conducted a study on gender, disability and access to education in Tanzania; Gutman (2007) who conducted a study on the obstacles encountered by Tanzanian visually impaired women in accessing and gaining an education; and Mnyanyi (2014) conducted a study on changing teachers' practices in regular schools enrolling children with visual impairment in Tanzania. However, there is neither of those studies which dealt with teachers' skills development on supporting visually impaired children enrolled in primary schools in Dar es Salaam. Again, most of the study was conducted outside Tanzania that cannot reflect the reality on this matter. It is from this ground that had driven this study to fill in that gap.

2.5 Conceptual Framework

This study adopted Lance's (2007) context, input, process and product evaluation model known as CIPP. The model's core consists of context evaluation leading to informed and contemplated decisions; input evaluation directing structured

decisions; process evaluation guiding implemented decisions; and product evaluation serving to recycle decisions **(**Lance, 2007). The rationale for adopting this model was due to the fact that the study was evaluative in nature as it evaluates the study on the teachers' skills development on supporting children with visual impairment enrolled in primary schools in Dar es Salaam (Figure 1).

Skill development affects student achievement through three steps. First, professional development enhances teacher knowledge, skills, and motivation. Second, better knowledge, skills, and motivation improve classroom teaching. Third, improved teaching raises student achievement. If one link is weak or missing, expected students' learning outcomes cannot be realised. If a teacher fails to apply new ideas from skill development to classroom instruction, students will not benefit from the teacher's skills development. In other words, the effect of skills development on student learning is possible through two mediating outcomes: teachers' learning, and instruction in the classroom

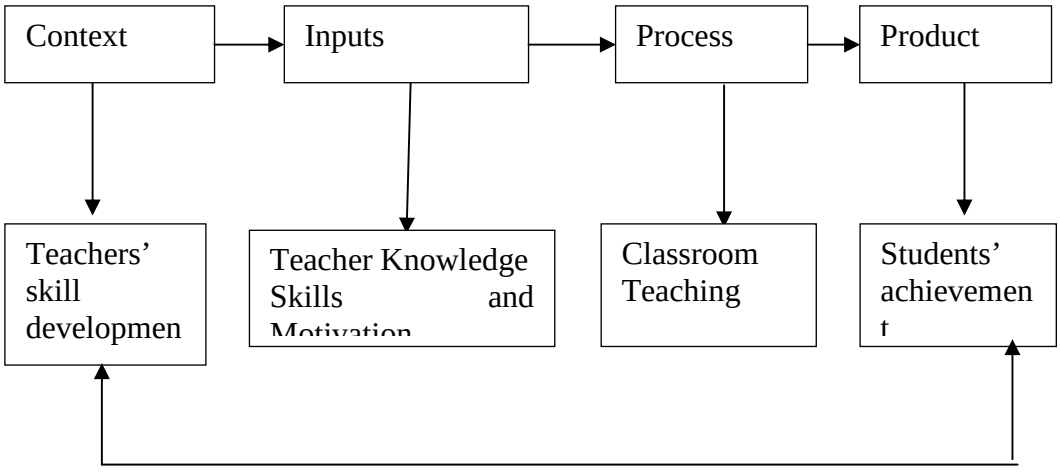

Figure 2.1: Conceptual Framework of the Study

Source: Modified from Lance (2007)

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

This chapter deals with methodology used in carrying out the research. It starts by highlighting the research paradigm and design followed by the study area. It also gives descriptions of the sample size, its selection, data sources, data collection techniques and measurement units. Data analysis technique, validity and reliability of research instrument are also discussed.

3.1 Research Paradigms and Design

3.1.1 Research Paradigm

Research paradigm is a perspective based on the set of shared assumptions, values, concepts and practices (Johnson and Christensen, 2010). This study used both positivism and interpretivist paradigms/philosophies as it sought to assess teachers' skills in supporting visually impaired children in primary schools in Tanzania. Saunders (2003) asserts that positivism philosophy is based upon the highly structured methodology to enable generalization and quantifiable observations and evaluate the result with the help of statistical methods. In positivism philosophy the researcher plays role of an objective analyst to evaluate the collected data and produces an appropriate result in order to achieve research aims and objectives. The same was applied during this study.

Johnson and Christensen (2010) assert that interpretive philosophy believes that the social world of management and business is too complex as to be formulated in

theories and laws such as in the natural science. Interpretive philosophy represents the critical thinking about positivism philosophy. According to this philosophy, there are many truths and meaning of a simple fact and these are suitable for every situation and for every research problem. This study also applied this philosophy in gathering, analysing, interpreting data as well as discussing the findings.

3.1.2 Research Design

Kothari (2004) defines research design as conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data. The study qualitative in nature using a case study approach. A case study is an intensive analysis of an individual unit, for example a person, group, or event stressing developmental factors in relation to context (Flyvbjerg, 2011).

The reasons for using a case study was to enable the researcher to be consistent in looking at events, collecting data, analysing information and reporting the results in accordance to teachers' skills in supporting visually impaired children in primary schools in Tanzania. Since the study covered a single school, then the case study design was the most suitable. The dependent variable was teachers' skills whereas the independent variable was the support services to children with visual impairment.

3.2 Study Area

The study area of this study was primary schools of Ilala Municipal, in Dar es Salaam. Selection of primary schools of Ilala municipal in Dar es Salaam was based on the fact that the area had over 10 schools enrolling visually impaired pupils than

other municipals. Similarly, Ilala has a school with large number of children with visual impairment. Such schools are also found in other regions. It was also due to limitation of time and financial resources.

3.3 Target Population

Population is very important in research methodology. From the population, sample size is drawn which normally used in research methodology. According to (Kothari, 2004) a population in research is the totality of the objects under investigation while a sample is a part of the population. This study was conducted in Ilala district in Dar es Salaam region particularly on visually impaired children enrolled in primary schools. The choice of Ilala District in Dar Es Salaam was due to the time of study she was a resident in the district.

3.4 Sampling and Sample Size

3.4.1 Sampling Technique

Sampling techniques refers to the process of selecting the participants of the sample study from the population (Kothari, 2004). This study used probability sampling. Somekh and Cathy (2005) argue that in probability sampling each member or item of the population has an equal or known chance of being selected. Thus, random sampling was used by this study since it selects items from a population in which each item has an equal chance of being selected and the selection of one does not affect the selection of any other. In other words simple random sample was applied, whereby each teacher and visually impaired pupils had an equal chance to be selected for the interview and filling in the questionnaire.

3.4.2 Sample Size and Respondents Characteristics

A sample size is a small group or subset of the population, which researcher selects for the purpose of the study and from which generalization is made about the characteristics of the population (Krippendorf, 2004). The sample size of this study was seventy. It comprises of teachers and pupils. The sample size is summarised in Table 3.1.

Table 3.1: Sample size

S/N	Sample	Number of Respondents
1	Teachers	60
2	Pupils	10
Total		**70**

Source**:** Researcher (2013)

3.4.1.1 Respondents Characteristics

This part presents personal profile of respondents. Their profile was important to the study as it helped the researcher to come up with different opinions during the discussion of findings. Background information involves levels of education of the respondents and sex of respondents.

3.4.1.2 Educational Background of the Respondents

This study wanted to know the levels of education of the respondents. This could also help the researcher to understand the skills, which might have been attained by respondents. The results were as shown in Table 4.1 below.

Table 3.2: Educational Background of the Respondents

Responses	**Frequency**	**Percent**
Certificate	23	38.3
Diploma	37	61.7
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.1 reveals that the majority of respondents were diploma holders who counted 37 (61.7%) out of teachers who were given questionnaire. The other 23 (38.3%) of the respondents were certificate holders. This implied that teachers of pupils with visual impairment had considerable education to facilitate pupils' learning. Most of teachers were not graduates as Chambulila (2013) and Meena (2009). According to Chambulila (2013) a large number of teachers are non-university based: those having certificates and those with a diploma in teacher education. However, it should be noted that ten students who were studying for primary education were excluded, as they were not given questionnaire, instead they were interviewed.

3.4.1.3 Sex of the Respondents

The sex of respondents was sought for the purpose of determining male and female representation in facilitating children with visual impairment. The results were as shown in table 4.2 below:

Table 3.3: Sex of Respondents

Responses	Frequency	Percent
Male	14	23.3
Female	46	76.7
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.2 shows that female outnumbered male in facilitating children with visual impairment. While female counted 46 (76.7%) of the respondents, male counted 14 (23.3%) of the respondents. In addition, male and female pupils were represented equally during the interview as they counted five each.

3.5 Sources of Data

Data is anything given or admitted as a fact and on which a research inference is based. It is anything actual or assumed used as a basis for reckoning (Oso and Onen, 2008). This study used both primary and secondary data for its completion procedures.

3.5.1 Primary Data

Primary data is the data collected by the researcher himself/herself or by research assistants from the field for the purpose of answering a research questions/issue (Adam & Kamuzora, 2008). The data of this study were directly obtained from the field. Data were collected from the sample population through questionnaires, interviews and observation. Data from the field was collected in order to get the real experiences of the respondents in a specific context in which both teachers and children with visual impairment interact during teaching and learning process. This experience from people experiencing the situation enabled the researcher to identify teachers' skills that support children with visual impairment and challenges both teachers and children face during teaching and learning process.

3.5.2 Secondary Data

Secondary data are data obtained from literature sources or data collected by other

people for some other purposes. Some of the data collected and stored by organizations include details on the payroll, income statements, and copies of letters and minutes of meetings. Newspapers, journals and textbooks are also sources of secondary data (Adam & Kamuzora, 2008). Secondary data for this study were collected from books, journals and reports, internet as published and unpublished material sources. In this study I collected information related to children with visual impairment performance in both internal and external examinations. Researcher also collected information related to availability of teaching and learning materials in the school. This are secondary data as are just records available in the school (Kamuzora, 2008).

3.6 Data Collection Instruments

Data instruments are tools used to collect data and information of any study. This study used questionnaire, interview questions, observation and documentary review as tools for data and information collection.

3.6.1 Questionnaires

The questionnaire is a research instrument that uses a series of questions to be filled in order to collect data or basic facts from individuals who are well informed on the phenomenon being studied (De Vous, 2001). The type of respondents determines the type of questions and format in a questionnaire, aim of the research, size of the sample, indicated method of data collection, and the expected method of analysis of the data. In this study questionnaires were used to collect information from teachers who were the main target of this study. The reason for using questionnaire was to

compare different views from teachers in order to identify the skills that teachers had and the challenges teachers faced. Such information was important in this study as researcher was assessing teachers' skills in supporting learning of children with visual impairment.

3.6.2 Interviews Questions

The interview is the most common method used in collecting qualitative research data. It is a two-person conversation initiated by a researcher for the purpose of obtaining relevant information that answers the research questions posed (Corbin & Strass, 2008). Interview is a method of collecting information through oral or verbal communication between the researcher and the respondents. Interview method is chosen because it is quite flexible, adaptable and can be applied to many people and information can be obtained in detail and well explained. Data which to be collected from interviews will provide primary data for the study.

The reason for using interviews is built upon recognition that participants of this study were the ones experiencing the situation at hand that made them to be the best in providing information related to skills facilitating learning of children with visual impairment with associated challenges. People's knowledge views, understanding interpretations, experiences, and interactions are meaningful properties of the reality (Mnyanyi, 2014). In this study ten pupils participated in the interviews. These students gave their views on matter pertaining to teachers' skills in supporting children with visual impairment. Their views were very important in either supporting or opposing what their teachers said.

3.6.3 Observation

Observation is a method used to collect real data presented in a natural setting (Flick, 2007). The use of the observation method allows the researcher to reveal the inter- and intra-personal variations existing in implementing a practice (Glaser & Strauss, 1967). Observation also added to researcher's data and information like infrastructure, children skills as the outcome of their learning and other facilities needed for supporting students with visual impairment.

3.6.3 Documentary Review

Documentary review is a process of reading various extracts found in offices or places dealing with or associated with the issue related to what the researcher is investigating (Krippendorf, 2004). Documentary review schedule was designed in order to ensure that all important documents were available for the exercise. During this study the researcher reviewed available documents concerning with teachers' skills in supporting visually impaired children in primary schools in Tanzania. These literature were also compared with the findings obtained in the field. The school documents also gave the researcher a chance to view both what is reported and what was actually happening.

3.7 Data Analysis

3.7.1 Data Analysis Method

Data analysis is referred to as creating meaning out of raw data (Johnson & Christensen, 2012). Data analysis involves comparing, contrasting, ordering, establishing links, speculating, creating category systems, putting together related information and identifying relationships (Kvale & Brinkman, 2009). The collected

data of this study was edited, coded and analysed descriptively. Quantitative data for this study was processed with the aid of Statistical Package for Social Sciences (SPSS: Version 16.0 for windows). Data was entered into SPSS programme that finally produced frequencies and percentages of responses. These tables were used to present the findings in details as well as study discussion.

3.7.2 Unit of Analysis

A unit of analysis is one of the most important ideas in a research project. The unit of analysis is the major entity that one analyses in her/his study. During this study, the unit of analysis was the individual respondents from the visually impaired pupils in Ilala municipal, Dar es Salaam.

3.7.3 Variables and their Measurement

This study discussed the following variables and their measurements including: teachers' skills in supporting children with visual impairment which were measured by training of teachers, longevity of teachers in teaching career, application of teaching methods for impaired pupils, different methods of transcribing teaching materials and their communication skills. Another variable was strategies in developing teachers' skills in supporting children with visual impairment, which were measured by in-service training, regular assessments and practical training for teachers.

Furthermore, support services provided to children with visual impairment was another variable which was measured through motivation of learners, moral support from public, availability of teaching and learning materials, and availability of

mobility equipment. The study also used challenges facing children with visual impairment in developing their skills as another variable. This variable was measured by friendly infrastructure for visually impaired pupils, size of the classroom, professionalism of teachers, culture of the society in supporting visually impaired pupils, and the strength of curricula of visually impaired pupils.

3.7.4 Reliability

Bryman and Bell (2007) pointed out that reliability relates to the consistency or dependability of a measure. They argued that if it is reliable, you can be confident that all the items that make up the measure are consistent with each other and that, if you were to use the measure again with the same individuals, they would be rated similarly to the first time. The test-retest reliability a survey instrument, like a psychological test, is estimated by performing the same survey with the same respondents at different moments of time. For the case of this study, reliability was measured through the test-retest method which showed close results to each other.

3.7.5 Validity

Validity is the extent to which an empirical measurement adequately reflects the real meaning of the concept under study (Trochim, 2005). Reliability relates to whether it is measuring what is intended to be measured and represents the overarching quality of the measure. Also, Churchill and Brown (2007) defined validity as the extent to which the instrument accurately measures what was intended and supposed to measure. The questionnaires for this research were pilot- tested to students with visual impairment and teachers in Ilala municipal and their comments were used to

modify the questionnaires and interview questions that enables the this study to capture the required data and information.

3.8 Ethical Consideration

Ethical issues are about attributes like disclosure, creating an understanding, competence of the participants, confidentiality and informed consent to participate to the study (Bogdan & Biklen, 2007). The researcher observed all rules and regulations during the whole process of the research in the field including presenting letter of introduction from Open University of Tanzania. In order to maintain ethics respondents were informed about the purpose of the study and assured about them the confidentiality of the information which could be obtained, that it was for academic purposes only. Likewise the questions were structured careful in order to avoid the questions that could embarrass the respondents.

CHAPTER FOUR

4.0 FINDINGS, ANALYSIS AND DISCUSSION

This chapter presents findings, analysis and discussion of the study. The discussion has also been considered various studies conducted by scholars on the issues pertaining to teachers' skills in supporting visually impaired students. Generally, this chapter presents its findings, analysis and discussion in the line of its objectives. These objectives are: teachers' skills in supporting children with visual impairment; strategies in developing teachers' skills in supporting children with visual impairment; support services provided to children with visual impairment; and challenges facing children with visual impairment in developing their skills.

4.1 Teachers' Skills in Supporting Children with Visual Impairment

This part determines teachers' skills in supporting children with visual impairment. The skills of teachers have been presented in terms of longevity in working with visual impairment students, teachers training for visually impaired children, longevity in attending teachers' training for visually impaired children, the uses of students' centred approach, the ability to use transcribe teaching materials into brail or large print, modification of learning and teaching materials like text books for visual impaired children, effectiveness of communicate with visually impaired children, teachers' training for computer skills for visually impaired children, and exercising orientation and mobility to children with visual impairment.

4.1.1 Longevity in Working with Visually Impaired Children

The researcher wanted to understand the longevity of teachers working with visually

impaired students. Table 4.1 reveals the time spend among teachers working with visually impaired children. It shows that out of 60 respondents, 38 (63.3%) of the respondents worked with visually impaired children tween 11-15 years. Further, 14 (23.3%) of the respondents spend more than 21 years working with visually impaired children. Only 8 (13.3%) of the respondents worked with visually impaired children between 6-10 years. Generally, most teachers worked with visually impaired children for more than five years. This was considered to be enough experience of teachers on matters pertaining to visually impaired children.

Table 4.1: Longevity in Working with Visually Impaired Children

Responses	**Frequency**	**Percept**
6-10 years	8	13.3
11-15 years	38	63.3
More than 21 years	14	23.3
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.1 indicates that a large number respondents (38) had long experience in supporting children with visual impairment. This long services to teachers was important for me to elicit information from such groups.

During the interview, it was revealed that most of the teachers were facilitating children with visual impairment children for long time. One of the respondents said "*since I came here, it is almost seven years, most of the teachers who are teaching me, I can hear them until now…*". The statement presages that experienced teachers could demonstrate varieties of teaching strategies that could enhance understanding of children with visual impairment. In this regards, Sammons *et al* (2014) are of the

view that teachers' practices are activities that teachers constantly exhibit when teaching in a class. These behaviours include involving all children in the lesson, providing appropriate learning activities for each learner in the class, the ability to use a variety of teaching approaches, methods and strategies, using recommended teaching methods for the national curriculum, and the ability to use different questioning and probing techniques.

4.1.2 Teachers' Training for Visually Impaired Children

Training is important for a person who wants to acquire skills of something. The researcher wanted to know whether teachers underwent training visually impaired children. Table 4.2 below summarises the results:

Table 4.2: Teachers' Training for Visually Impaired Children

Responses	**Frequency**	**Percent**
Yes	60	100.0
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.2 reveals that all respondents underwent teachers' training for visually impaired children. Generally, the table implies that most of teachers teaching children with visual impairment had special training for the job they were doing. Teachers' training for children with visual impairment is very crucial. Mnyanyi (2014) asserts this through learners with VI by saying that whereas teachers need to learn how to facilitate the learning of children with visual impairment, children with VI need the teachers' support for their learning. These conditions may include the availability of qualified teachers, teachers' knowledge and skills, adequate teaching

materials, appropriate curricular content, use of child-centred teaching methods and knowledge and skills in using assistive special technologies for both teachers and learners.

4.1.3 Longevity in Attending Teachers' Training for Visually Impaired Children

The researcher wanted to know the duration of training among teachers who taught children with visual impairment. Table 4.5 shows the results:

Table 4.3: Time spend in Teacher education for Visually Impaired Children

Responses	**Frequency**	**Percent**
Less than a year	10	16.7
One year	8	13.3
Two years	9	15.0
More than two years	33	55.0
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.3 reveals that there were more teachers who had special needs training for more than two years. The long period of training might have contributed to developing skills that would support them in facilitating learning of children with disabilities. One of the teachers said

> "*The training I underwent is more than two years because I attended a certificate course in Patandi for one year and later enrolled for a Diploma course for two years. I also have had short course training several times. The trainings focused on supporting children with visual impairment in their learning process"*.

Generally, the results implied that most of teachers attended training for visually

impaired students but in different duration. This meant, by assumption that every teacher was doing what he/she knew professionally.

4.1.4 The Uses of Students' Centred Approach

Students' centred approach is among the methods emphasised in teaching approach. The researcher wanted to know whether teachers were applied this method. Table 4.4 reveals the results:

Table 4.4: The Uses of Students' Centred Approach

Responses	**Frequency**	**Percent**
Often	16	26.7
Where applicable	44	73.3
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Teachers responses tote questionnaire in this study indicated the unsatisfied use of student centred approach (Table 4.4). Only a few teachers often used student centred approach. This has a consequence in children learning. It was also revealed that only when applicable, teachers, used child-centred approach. One of the teacher said:

> "*it is difficult to use child-centred approach because there are few resources. It is one year now have not seen a braille printed book for my subject. In such a situation how can I give assignment to children with visual impairment?*

During the interview, most of the children said that their teachers were applying traditional methods more often as compared to child-centred. In some cases teachers were using words like look at this or show me something without knowing that we are in the class and we are blind. One of the students said:

> *Our teachers sometimes direct us to do something and then ask us about our findings before they start to correct us where necessary. There are times teachers use words like what happens if we take this and add to ten. There are also times our teachers tell us to write notes from the chalk board. But we are blind* (Mnofwe, a visually impaired child).

The statement indicates that not always children were involved in teaching and learning process. Thus, they put theory into practice that built their skills on a particular matter. Students become active and not passive as Mmbaga (2002) says. These results were contrary to Mnyanyi (2014) who asserts that in Tanzania, where teaching methods are based on chalk and talk, there is less classroom interaction. The seating arrangements in the classroom are those suitable for the teaching method used, with all children sitting facing the chalkboard with no room for classroom interactions.

4.1.5 The Ability to Use Transcribe Teaching Materials into Brail or Large Print

The researcher wanted to know whether teacher were knowledgeable enough in manipulating different teaching and learning materials. Table 4.5 shows the results of the respondents:

Table 4.5: The Ability to Use Transcribe Teaching Materials into Brail or Large Print

Responses	Frequency	Percent
Yes	54	90.0
No	6	10.0
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.5 reveals more teachers in the school had the ability to transcribe teaching materials into brail or large print for children with visual impairment. Only a few teachers had no ability of transcribing teaching materials into brail or large print for children with visual impairment. These results meant that a good number of teachers of children with visual impairment were professionally trained to teach the said children. One of the respondents who indicated to have no knowledge in transcribing materials said

> *The training in the teacher education college do not focus on specific skills and therefore I completed college education without skills in transcribing, preparing teaching resources, and using different equipment that support learning of visually impaired children in schools. After completing my studies have not attended any short course training on this matter* [Safity, a teacher of visually impaired children]

The ill trained teacher had no ability of constructing teaching materials for children with visual impairment. Cohen and Hill (2000) assert that braille embossers can also turn text files into hard-copy braille, although the availability of this technology may vary by language.

4.1.6 Modification of Learning and Teaching Materials like Text Books for Visual Impaired Children

Table 4.6 shows the results of the abilities of teachers in modifying learning and teaching materials like text books for visually impaired children:

Table 4.6: Adapting and Modifying Learning and Teaching Materials

Responses	Frequency	Percent
Yes	51	85.0
No	9	15.0
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

In this study on few teachers lacked skills in adapting and modifying teaching resources like textbooks for visual impaired children. These results meant that the abilities of teachers working with visually impaired students in academic issues were great. This can also be justified by Table 4.8 which shows the abilities of teacher in transcribing learning and teaching materials into brail or large print. Thus, teachers were well trained for teaching children with visual impairment. This might also been influenced by the modification of curriculum with visual impaired students. To show the importance of transcribing learning and teaching materials Rossi *et al* (2004) argue that students who depend on large print books for most or all of their reading materials are often disadvantaged because of the limited availability of large print materials. Students with low vision can avoid the disadvantages of using only one strategy by acquiring a variety of efficient literacy tools that incorporate a range of technologies.

4.1.7 Effective Communication to Visually Impaired Children

Visually impaired children need effective communication from the sender of information as they cannot see. Table 4.7 shows whether teachers of visually impaired children could communicate to them effectively.

Table 4.7: Effective Communication to Visually Impaired Children

Responses	Frequency	Percent
Yes	48	80.0
I don't know	12	20.0
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Only a few teachers indicated to have lacked skills in effective communication with visually impaired children (Table 4.7). During the interview with visually impaired children revealed that they understood their teachers. All of these implied that most teachers had effective communication skills. These were the skills that were obtained from special training for children with visual impairment. However, this results contradicts with those of Kapinga (2012) who indicates that teachers in Tanzania lack knowledge and skills in supporting children with disabilities enrolled in their classes, since they are prepared to teach general education students. Again, Mmbaga (2002) found that children with disabilities were left without any support in inclusive classrooms.

4.1.8 Teachers' Training for Computer Skills for Visually Impaired Children

The pace of science and technology is great even to the field of education. Now days, it is expected that every teacher has computer skills although in some cases it does not apply. The researcher wanted to know whether teachers of visual impaired children had that ability. Table 4.8 shows the results:

Table 4.8: Teachers' Training for Computer Skills for Visually Impaired Children

Responses	Frequency	Percent
Yes	8	13.3
No	52	86.7
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.8 illustrates that teachers had no skills in facilitating children with visual impairment in learning ICT. Although most teachers said that they had computer skills, most of their students could not apply the said skills. During researcher observation, it was revealed that there were few computers and some of them were not functioning. This meant that teachers were not teaching computer skills to students due to various reasons including inadequate of computers. This had negative effect to both teachers and children that could affect them in the process of teaching and learning.

The said effects can be seen through scholars like Fishman *et al* (2003) who assert that the use of technology, both mainstream and assistive, is a crucial component of the student's education. Be sure to devote enough instructional time to meet the students' needs in this area. Garet *et al* (2001) argue that regardless of whether technology instruction is to be provided by an IT Specialist or a Teacher of the Visually Impaired (or both), technology instruction should be listed as a separate service on the just as orientation and mobility is. Fishman *et al* (2003) are of the view that as a rule of thumb, for a typical Braille reading student who has mastered keyboard, no less than one hour per week of direct instruction should be provided, and more is often helpful.

4.1.9 Exercising Orientation and Mobility to Children with Visual Impairment

Exercise is very important as practice. The researcher wanted to know whether teachers oriented their students on mobility issue. The results were as shown in table 4.9 below:

Table 4.9: Orientation and Mobility Training in Schools

Responses	Frequency	Percent
Yes	56	93.3
No	4	6.7
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Almost all teachers participated in this study had skills in facilitating children to learn orientation and mobility amongst children with visual impairment (Table 4.9). During the interview, children said that they were oriented and they exercised mobility. One of the students said:

> *We always do a lot of things…sometimes under our teachers' directions. We can move from here to there…we know a lot of things around us. Before joining this school we had problems with mobility. We were unable to identify classroom location and had problems with navigation around our school compound. Now we feel competent and can move around freely* [Dosisi, A visually impaired child]

These results meant that skills application among teachers and students were great. Every one played his/her role considerably.

In line of those results, orientation and mobility specialists working with children also assist children with visual impairments to attain the skills they need to live successful lives (Davis and Hopwood 2002). The orientation and mobility specialist's responsibilities centre mainly on skills such as independent travel and daily living skills (Richardson and Placier, 2001). In addition to the typical orientation and mobility sequence, orientation and mobility specialists working with children help them learn fundamental skills that support independence such as gross and fine

motor skills, auditory skills, concept development, exploration and curiosity, problem solving and environmental experiential activities (Borko, 2004).

4.2. Developing Teachers' Skills in Supporting Children with Visual Impairment

This part identifies various strategies used to develop teachers' skills in supporting children with visual impairment. The findings are based on the importance of pre and in-service visual impaired training for teachers, the importance of regular assessment to build teachers' skills, and the importance of practical learning in building teachers' skills as follow:

4.2.1 Pre and In-service Visual Impaired Training for Teachers

Since pre and in-service training is very important in facilitating skills among teachers, the researcher wanted to know whether teachers acknowledge the importance of those training. Table 4.10 below shows the results:

Table 4.10: Pre and In-service for Teachers of Visually Impaired Children

Responses	Frequency	Percent
Yes	50	83.3
No	10	16.7
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.10 reveals most of the teachers who participated in this study admitted the importance of pre and in-service training for visually impaired children. During

observation, it was revealed that all teachers attended training for children with visual impairment. However, some of them did not attend in-service training. Thus, in-service training among teachers did not cover all teachers and therefore, likely to decrease the skills of those teachers in attending children with visual impairment.

It should be noted that teachers' practices are linked to teacher knowledge and skills about how to interpret the curriculum, prepare a lesson and how to teach. Pre-service teacher training equips teachers with in-depth understanding of the school subjects they are required to teach and the pedagogical skills necessary to support learning at different grade levels in school (Makuwa, 2011).

Although pre-service teacher training equips teachers with in-depth understanding of the school subjects they are required to teach and the pedagogical skills necessary to support learning at different grade levels in school (Makuwa, 2011), the teachers reported that they lacked knowledge and skills in teaching pupils with VI and therefore proposed professional development courses. One of the teachers with VI noted the importance of orientation for teachers in facilitating the learning of children with VI because it was important to be able to determine and address their needs (Mnyanyi, 2014).

4.2.2 The Importance of Regular Assessment to Build Teachers' Skills

The researcher wanted to know whether teachers of visual impaired children acknowledged the importance of regular assessment. The results are shown in Table 4.11.

Table 4.11: The Importance of Regular Assessment to Build Teachers' Skills

Responses	Frequency	Percent
Yes	56	93.3
No	4	6.7
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.11 reveals that almost all teacher acknowledged the importance of regular assessment. It is regular assessment that provides teachers with special skills in diagnosing children learning difficulties they face. However, observations showed that teachers were assessed at once per year that could help good performance among students. This implied that if teachers were assessed regularly, it could minimise some challenges associated with teaching and learning of visually impaired children. The same line Cohen and Hill (2000) argue that effective teachers assess both student learning and their own professional learning. New teachers struggle with both types of assessment. On student assessment the most new teachers have a limited repertoire of assessing strategies and few prior experiences with alternative assessment.

Researcher observed that teachers rarely receive ongoing feedback about their teaching (Cohen, Raudenbush and Ball, 2002). Accurate feedback is a crucial component of instructional change, but teachers are dependent on others to supply the necessary data to answer the question. Assessing oneself as a teacher is a highly inexact science. Teachers can glean information from a variety of sources, including student feedback and technology audio taping a class and then analysing the lesson (Cohen & Hill, 2000).

4.2.3 The Importance of Practical teaching in building Teachers' Skills

Table 4.12 shows whether practical teaching built teachers' skills in teaching children with visual impairment.

Table 4.12: The Importance of Practical Learning in building Teachers' Skills

Responses	Frequency	Percent
Yes	55	91.7
No	5	8.3
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.12 shows respondents in this study placed more emphasis on practical learning as was important when building teachers' skills in teaching children with visual impairment. It was also revealed that teachers of students with visual impairment were learnt by practice. They did also practice of teaching for the said children and be recommended by their assessors before being employed as professional teachers of visually impaired children.

Thus, practical learning and teaching was crucial to teachers of children with visual impairment. These are also shown by Morewood (2007) who is of the view that teachers must have capacity building with a focus on developing the teachers' knowledge of content, pedagogy, and curriculum that will inform the teachers' practices. Knowledge of content means teachers will need to be trained in the content they will later teach, whereas knowledge of pedagogy is about how teachers will deliver the content as prescribed in the curriculum.

4.3 Support Services Provided to Children with Visual Impairment

This part examines support services provided to children with visual impairment. It is examined under the following aspects: motivation of learning among children with visual impairment; moral support given by general public to children with visual impairment; sufficient materials like basic needs given to children with visual impairment; sufficient learning materials like computers given to children with visual impairment; and availability of mobility instruments among children with impairment.

4.3.1 Motivation of Learning among Children with Visual Impairment

Intrinsic motivation plays great role in individual success. In this right the researcher wanted to know whether children were motivated themselves to study (Table 4.13).

Table 4.13: Motivation of Learning among Children with Visual Impairment

Responses	Frequency	Percent
Yes	55	91.7
No	5	8.3
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.13 shows that respondents in this study were motivated themselves to study. Although the majority respondents showed that children were motivated themselves to study, few were not. The few complained that physical infrastructure were not friendly to them. One of the respondents said

> *I am interested to coming to school and learn. I face a lot of challenges from home to school. However, I do not like to stay at home. I feel I need Education like my fellow students. When at school I face some*

> *physical infrastructures are not friendly to us……I don't enjoy learning*
> [zosiii, A visually impaired child]

Thus, some infrastructure was not compatible to those children that caused lack of motivation among them. Generally, Herzberg's (1959) in Two-Factor theory and Brass (1981) who argues that extrinsic factors (or hygiene factors) cannot cause motivation or satisfaction, so it is likely that those factors are not causing high performances.

4.3.2 Moral Support Given by General Public to Children with Visual Impairment

Since those children with visual impairment come from society, the researcher wanted to know the contribution of moral support from the society in facilitating learning of those children. The results were as shown in Table 4.14 below:

Table 4.14: Moral Support to Children with Visual Impairment

Responses	**Frequency**	**Percent**
Yes	28	46.7
I don't Know	5	8.3
No	27	45.0
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.14 illustrates that less than 50% of respondents indicated that children received moral support from general public. This might a reason as to why many children with disabilities do not have access to education services in Tanzania. During the interview, it was said that most of people who gave them moral support

were their parents, blood related sisters and brothers. It was very rare to find people who were not blood related, apart from their teachers and fellow students, giving them moral support neither visiting them. These results meant that the general public did not support those children morally. Only their parents and blood related relatives such as their sisters and brothers were supporting them morally.

4.3.3 Support of the Society in Learning for Children with Visual impairment

This study wanted to know whether there was any support from society to children with visual impairment. The results were as shown in table 4.15.

Table 4.15: Support of the Society in Learning for Children with Visual impairment

Responses	Frequency	Percent
Yes	24	40.0
No	36	60.0
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.15 reveals that most of respondents had a view that there were no support of learning for children with visual impairment from the general and school environment. During the interview, it was revealed that the society was contributing a little bit to their studies. Most of the things the society contributed to their learning were computers. This implied that the society was not doing enough to the learning of children with visual impairment. As the result, sometimes, they felt isolated and some of them become not motivated by studies.

Those findings do not concur with some scholars who assert that students with visual impairments may need additional help with special equipment and modifications in the regular curriculum to emphasize listening skills, communication, orientation and mobility, vocation/career options, and daily living skills (Taylor *et al*, 2006). Students with low vision or those who are legally blind may need help in using their residual vision more efficiently and in working with special aids and materials (Khurshid and Sufian, 2011).

4.3.4 Sufficient Materials like Basic Needs Given to Children with Visual Impairment

Basic materials that support a person are basic needs to him and they are obligatory to those people with the same physical or mental behaviours. This study wanted to know whether children with visual impairment had sufficient materials like basic needs (Table 4.16).

Table 4.16: Sufficiency of Materials for Children with Visual Impairment

Responses	**Frequency**	**Percent**
Yes	37	61.7
I don't know	5	8.3
No	18	30.0
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.16 reveals respondents to have views that there were sufficient materials like basic needs given to children with visual impairment. They lacked services due to availability of sufficient materials like basic needs given to children with visual impairment. During the interview, it was found that most of the things were there

but not sufficient. This was witnessed by the shortage of white cane for visually impaired children. Thus, there was a shortage of materials that could support their life effectively and therefore affected their daily routine.

4.3.5 Sufficient Learning Materials like Computers given to Children with Visual Impairment

The researcher wanted to know whether there were sufficient learning materials like computers that were given to children with visual impairment. The results were as shown in Table 4.17.

Table 4.17: Availability of Learning Materials to Children with Visual Impairment

Responses	Frequency	Percent
Yes	28	46.7
I don't know	9	15.0
No	23	38.3
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.17 shows that less than 50% of the respondents in this study said that there were sufficient learning materials like computers for children with visual impairment. This indicates that there are acute shortages of resources in schools supporting learning of visually impaired children. During the interview, it revealed that most of the things were not there. Some interviewees were asked to use computers but their failed although initially they said that they could use them. This implied that respondents did not play their parts effectively. Neither teachers nor students who played their part in making sure that they were supposed either to get or

to say what they supposed to. It was implied that some children had no computers at homes. This affected them negatively especially completion of their works as most of the stakeholders could no address those unrevealed challenges.

These results were contrary to Garet *et al* (2001) who assert that an accessible computer at home enables the student to complete homework assignments in a format that is accessible to him/her and the classroom teacher. And it provides much-needed opportunities to practice. Guskey and Sparks (2004) reveal the importance of computers by saying that If there is not a computer in the home, seek an outside source. Sometimes the school can even be convinced to provide one as it is educationally necessary.

4.3.6 Availability of Mobility Facilities among Children with Impairment

Mobility instrument are among the basic needs of children with visually impaired children as they help their movements. The researcher wanted to know whether those mobility facilities were there. The following were the results as indicated in Table 4.18.

Table 4.18: Availability of Mobility Facilities among Children with Impairment

Responses	**Frequency**	**Percent**
Yes	34	56.7
No	26	43.3
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.18 reveals that there are shortages of mobility facilities for children with visual impairment. Researcher's observation noted a shortage of movement facilities among visually impaired children. Some interviewees also acknowledged the shortage of mobility facilities like wheel chairs in case of illness. These meant that children with visual impairment had a bit difficult time when they were in need of those facilities that could help them to fulfil their duties.

4.4 Challenges Facing Children with Visual Impairment in Schools

This part identifies various challenges facing children with visual impairment in developing their skills. This has been identified through: friendliness of physical infrastructure for children with visual impairment; the number of children with visual impairment in classroom; support of the society in learning for children with visual impairment, sufficient learning and teaching materials for visual impairment; professionalism of teachers with visual impairment; curricula for visual impaired children and students' centred approach; culture of the society to motivates teaching and learning of children with visual impairment; adequate of fund allocated for visually impaired children; and motivation of teachers to work with children with visual impairment.

4.4.1 Friendliness of Physical Infrastructure for Children with Visual Impairment

The researcher wanted to know whether children with visual impairment had physical infrastructure which was friendly to them. The responses were as indicated in Table 4.19.

Table 4.19: Physical Infrastructure for Children with Visual Impairment

Responses	Frequency	Percent
Yes	9	15.0
No	60	85.0
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.19 reveals that children with visual impairment had no friendly physical infrastructure. Friendly physical environment facilitates easy of movement and hence access to the services available in the school community. The observation made revealed some shortfalls of physical infrastructure for children with visual impairment. The interviewees also noted that sometimes they hit themselves on the objects. One of them said:

> *In this school we have a problem of infrastructures sometimes it is very difficult to walk freely without being hit on the object. Objects are placed randomly and no clear paths are set for entering from one place to another. I feel like when building this school there were no consideration that visually impaired would have been enrolled* [Mafff, A visually impaired child].

This implied that consideration for visually impaired children was not effectively taken. This may be associated with negligence of taking care of this group of minority like visually impaired children. However, some scholars like Cohen *et al* (2002) argue that **c**hildren who are blind or visually impaired need concrete, hands-on experiences so that they can understand the world around them and can independently and safely interact with the objects they encounter.

4.4.2 The Number of Children with Visual Impairment in Classroom

A size of classroom may also affect learning process of children with visual

impairment. This study wanted to know whether the number of students in the classrooms was considerable (Table 4.20).

Table 4.20: Class sizes for Children with Visual Impairment in Classroom

Responses	Frequency	Percent
Yes	10	16.7
No	50	83.3
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.20 reveals that the number of children with visual impairment in classroom was too big for teachers to support. The interview conducted showed that the number of children in the classrooms was more than 40 for each class. Again, the observation made showed that classes were large enough to make teaching and learning pedagogy ineffective. All of this affected learning and teaching of children with visual impairment. For example, it was difficult for a teacher to attend each student effectively, especially when it was for individual issues. This challenge was also noted by Mnyanyi (2014) who asserts that challenges like these tell of the experience of a large teacher workload, large class sizes and shortages of classroom facilities suitable for children with visually impaired. These were also seen as barriers to learning.

4.4.3 Sufficient Learning and Teaching Materials for Visual Impairment Children

Sufficient learning and teaching materials for visual impairment children are among the important things needed for effecting learning and teaching process. In this case,

this study wanted to know whether there was deficient learning and teaching materials for visually impaired children. The results were as indicated in table 4.23 below:

Table 4.21: Sufficiency of Learning Materials for Visual Impairment Children

Responses	**Frequency**	**Percent**
Yes	32	53.3
I don't know	4	6.7
No	24	40.0
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.21 reveals that respondents in this study had mixed views on availability of sufficient materials learning and teaching for visual impaired children. During the interview, it was found that most of the things were there but not sufficient. This was witnessed by the shortage of computers and brail machines for visually impaired children. Thus, there was a shortage of materials that could make teaching and learning process effectively. Shortage of these materials might lead to infective skills which were supposed to be exposed by both teachers and students.

The same challenge can also been seen in Mnyanyi (2014) who found that the school had no books in braille print which followed the new curriculum. The situation was the same in all schools; none of the publishers had printed braille print books. The teachers described the limited amount of proper teaching materials as a barrier to improving teaching practices aimed at facilitating the learning of children with VI enrolled in Maisha Primary School.

4.4.4 Professionalism of Teachers with Visual Impairment

This study wanted to know whether teachers who were teaching children with visual impairment were professionally trained (Table 4.22).

Table 4.22: Professionalism of Teachers with Visual impairment

Responses	Frequency	Percent
Yes	60	100.0
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.22 illustrates respondents were professionally trained for teaching children with visual impairment. These results resemble with those of Table 4.2 which show that all teachers who were teaching children with visual impairment were trained. These result meant that professionalism of teachers were not questionable. In other words they had adequate skills of facilitating those children with visual impairment. However, Mnyanyi (2014) found teachers' inability to prepare and use teaching materials resulted in difficulties in facilitating the learning of children with VI.

Table 4.23: Curricula for Visual Impaired Children and Centred Approach

Responses	Frequency	Percent
Yes	38	63.3
I don't Know	4	6.7
No	18	30.0
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

4.4.5 Curricula for Visual Impaired Children and Centred Approach

Curriculum outlines skills which the student must have after a particular period of his/her studies. It also directs the facilitator what is supposed to be taught. This study

wanted to know whether curricular for visual impaired children were built in centred approach. The results are as shown in Table 4.23.

Table 4.23 reveals that most of the teachers admitted that curricula for children with visual impairment was based on students' centred approach. These results which were given by respondents implied that some teachers were not aware of what students' centred approach was. It was also possible that they taught students through experience of what they were taught during their time. This might have affected the learners in developing their skills. In this line Mnyanyi (2014) argue that the curriculum describes what a learner should learn, whereas teaching methods describe how educators present the curriculum. Again, TIE (2013) asserts that the curriculum for teacher education is very subject and methodology centred and does not take the diversity of learners into account.

4.4.6 Culture of the Society to Motivates Teaching and Learning of Children with Visual Impairment

This study wanted to know whether the culture of the society motivated teaching and learning of children with visual impairment. The results were as shown in table 4.24 below:

Table 4.24: Motivation to Learning of Children with Visual Impairment

Responses	Frequency	Percent
Yes	4	6.7
I don't know	8	13.3
No	48	80.0
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.24 reveals the respondents had a view that the culture of the society did not motivate teaching and learning of children with visual impairment. These results implied that society did not embrace the culture of teaching and learning of children with visual impairment and therefore demotivate those who devoted themselves to teach these children. The culture also demoralised the learning behaviours of children with visual impairment. As a result the society become the victim of having people with no skills and therefore become a burden to them and nation at large. However, Herzberg's (1959) in Two-Factor theory and Brass (1981) who argues that extrinsic factors (or hygiene factors) cannot cause motivation or satisfaction, so it is likely that those factors are not causing high performances.

4.4.7 Adequate of Fund Allocated for Visually Impaired Children

Adequate fund helps to fulfil many issues like buying teaching and learning materials. This study wanted to know whether there was adequate fund allocated for visually impaired children. The responses were as shown in table 4.27 below:

Table 4.25: Adequate of Fund Allocated for Visually Impaired Children

Responses	Frequency	Percent
Yes	6	10.0
No	54	90.0
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.25 shows that respondents views on availability of funds was that there was no enough fund allocated for visually impaired children. These results meant that most of the things like learning and teaching materials were not effectively bought.

As a result teaching and learning pedagogy was adversely affected, hence under developing children and teachers' skills. One of the respondent said that

> *Children successes depend on teachers' initiatives. Because the government do not provide enough funds to run training for visually impaired children. Teachers do not have in-service seminars and children do not have their learning resources including Braille textbooks and Braille machine* [GIII, a teacher of visually impaired child].

Such assertions indicate that we have to increase funding in these schools.

4.4.8 Motivation of Teachers to Work with Children with Visual impairment

Motivation is one the catalysts of success. In this right the researcher wanted to know whether teachers were motivated to work with children with visual impairment. Table 4.26.

Table 4.26: Teachers Motivation to Children with Visual impairment

Responses	Frequency	Percent
Yes	50	83.3
No	10	16.7
Total	**60**	**100.0**

Source: Questionnaire Data (2015)

Table 4.26 reveals that respondents were motivated themselves to work with children with visual impairment. Generally, these results implied that those who teach these children devoted themselves to help these children. Thus, the society should support them morally and financially in order to make them more effective of what they were doing as Vroom (1966) asserts that employees are motivated to make choices among behaviours. If employees believe that effort will be rewarded, there will be motivated

effort, that is, they will decide to work harder to receive a reward. Again, equity theory by Adams (1965) concerns with the perceptions of people about how they are being treated as compared with others.

CHAPTER FIVE

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter presents important issues, which some of them, have been discussed in this study. It dwells in summary and conclusion of the study. Furthermore, it gives recommendations of what have been discussed, limitations of the study as well as areas for further research.

5.1 Summary of the Study

This study was about assessing teachers skills in supporting visually impaired children enrolled in primary schools in Dar es Salaam. The study was conducted under four objectives namely: to determine teachers skills in supporting children with visual impairment; to identify strategies in developing teachers' skills in supporting children with visual impairment; to examine support services provided to children with visual impairment; and to identify challenges facing children with visual impairment in developing their skills. The study used questionnaire, interview, observation and documentary review methods of data collection. The data was collected from 70 respondents. Out of those respondents, 60 were teachers who were given questionnaire to fill and 10 were pupils who were interview.

5.2 Conclusion

Basing on the results of descriptive analysis, a number of conclusions have been made. These include the following, which are based on specific objectives of this study:

5.2.1 Teachers' Skills in Supporting Children with Visual Impairment

The findings showed that teachers had enough skills to facilitate learning of children with visual impairment. Teachers worked with those children for long time that enhanced their experience in work with children with visual impairment. The experience could help them to deal with difficulties wherever occurred. It was also found that teachers attended training for visual impairment. This meant that they worked professionally and therefore added value to children's learning. Although it was found that the majority of teachers were using students' centred approach in facilitating learning, it was not well cemented as some of them showed that the curricula were not students' centred approach. Some of them did not apply the method hence little promotion of creativity and innovation of children with visual impairment.

The majority of teacher could transcribe and modify learning materials to suit the status of learners. It was also found that teachers had good communication skills to make students understand what they supposed to understand. Again, teachers exercised orientation and mobility to children with visual impairment. However, computer skills were a challenge to both teachers and students. Some of them could not use computers effectively. This meant that both teachers and students were not exposed to computers.

5.2.2 Strategies in Developing Teachers' Skills in Supporting Children with Visual Impairment

The findings of this objective showed that teachers admitted that pre and in-service visual impaired training was important to them. However, in-service training was

rarely executed to them. Few teachers attended in service training. This implied that most of teachers were not full up to date with what was going on the field of teaching children with visually impaired. As a result, students failed to get new things from their teachers. It was further noted that teachers acknowledged the importance of regular assessment that could enhance their teaching skills. This meant that if teachers were assessed regularly, students would do better in their studies.

Finally, the majority of teachers acknowledged the importance of practical teaching in building teachers' skills as it could make them more active in facilitating their learners' behaviours. Generally, it can be said that pre and in service training for teachers of visually impaired children were important for children's development.

5.2.3 Support Services Provided to Children with Visual Impairment

The findings showed that motivation of learning among children with visual impairment was high. This could make them to do better in their studies. However, moral support given by general public to children with visual impairment was not encouraging. The general public was not close to children with visual impairment except their relatives, teachers and very few individuals.

Likewise, there were no sufficient materials like learning materials and computers given to children with visual impairment. These among other things hindered the learning and teaching pedagogy. It was also showed children with visual impairment were not sufficiently supported in terms of mobility facilities. This implied limitation of their mobility, creativity and innovation.

5.2.4 Challenges Facing Children with Visual Impairment in Developing their Skills

The study found number of challenges facing children with visual impairment in developing their skills. These included unfriendliness physical infrastructure, large number of children with visual impairment in classroom, insufficient support of the society such as motivating them, insufficient learning and teaching materials, cultural barriers in motivating teaching and learning of children with visual impairment, and inadequate fund allocated for visually impaired children. This implied that these challenges had negative impacts to both teachers and children with visual impairment in developing their skills and therefore needed to be addressed.

5.3 Recommendations of the Study

Basing on the above findings, this study gives some recommendations to the government, teachers and to society.

5.3.1 Recommendations to the Government

i. The government should invest in children with visual impairment by addressing challenges like friendly physical infrastructure and providing learning and teaching materials. These will improve learning and teaching environment to children with visual impairment hence performance of those children.

ii. The government should disburse the allocated fund accordingly so that to be used in time and accordingly for the betterment of the said children and the public in general.

5.3.2 Recommendations to the Teachers

i. Teachers of children with visual impairment should make sure that they possess computer skills in order to do their job according to today and future demand. Their computer skills will help them to teach their children on how to use it and therefore make students learn and perform different activities easily.

ii. Every teacher should take individual initiative to understand the curricula for children with visual impairment so that to translate it accurately hence make it effectively.

5.3.3 Recommendations to the Society

i. The society should encourage children with visual impairment so that they study hard for their benefits and the society at large.

ii. The society should give moral and material support to children with visual impairment in order to make their dreams come true hence become independent in daily life.

5.4 Limitations of the Study

This study like many other studies of its kind had limitations that need to be taken into account when interpreting its findings and its conclusions. First, the research employed self-administered questionnaires as a method of data collection and this method normally possess a number of weaknesses. The respondents were left to complete the questionnaire on their own will. The process of filling the questionnaire relies on the willingness and commitment of the respondents. This might lead to

biased responses. However, this could not compromise with credibility of this study. Last, there was a resistance on giving information from respondents. Some of the respondents, specifically students, were not active in giving information in regards to study. This was due to the fact that they were not exposed to outside people especially those who want to know about their life in general. However, the research in collaboration with their teachers selected few respondents who were willing to give information about the study.

5.5 Direction for Future Research

This study was limited to the assessment of teachers skills in supporting visually impaired children enrolled in primary schools in Dar es Salaam. Thus, future studies can be conducted on the skills on Braille and computer among pupils with visual impairment. The study can be conducted on the impact of physical infrastructure to the learning of pupils with visual impairment. Furthermore, future study can be conducted on other areas of study for comparison purpose.

REFERENCES

Adam, J. & Kamuzora, F. (2008). *Research Methods for Business and Social Studies,* Mzumbe Book Project. Morogoro.

Adams, S. J. (1965). Inequity in Social Exchanges. In Berkowitz (ed.) *Advances in Experiential Social Psychology*. New York: Academic Press.

Akakandelwa, A. & Joseph, M. (2011). "Provision of learning and teaching materials for pupils with visual impairment: Results from a National Survey in Zambia," *The British Journal of Visual Impairment,* Vol. 30(1), pp 42–49.

Arditi, A & Rosenthal, B. (1998). "Developing an Objective Definition of Visual Impairment." In *Vision '96: Proceedings of the International Low Vision Conference* (pp. 331-334). Madrid, Spain: ONCE.

Bagandanshwa, E. (1999). "Some highlight in the development of educational services for visually impaired and blind people in Tanzania." *HURIA Journal of the Open University of Tanzania,* 2, 44-57.

Bogdan, R. & Biklen, S. (2007). *Qualitative research for education: An introduction to theory and methods*. Boston: Pearson.

Borko, H. (2004). "Professional Development and Teacher Learning: Mapping the Terrain" *Educational Researcher,* 33 (8), pp 3–15.

Bryman, A & Bell, E. (2007). *Business Research Methods*. 2nd ed. Oxford: Oxford University Press.

Churchill, G. A. & Brown, T. J. (2007). *Basic Marketing Research, 6th edition***,** Mason, Thomson-South Western.

Clewell, B. C., Campbell, P. B., & Perlman, L. (2004). *Review of Evaluation Studies of Mathematics and Science Curricula and Professional Development Models.* Submitted to the GE Foundation. Washington, DC: Urban Institute.

Cohen, D. K., & Hill, H. C. (2000). "Instructional Policy and Classroom Performance: The Mathematics Reform in California." *Teachers College Record*, 102 (2), pp 294–343.

Cohen, D. K., Raudenbush, S., & Ball, D. L. (2002). "Resources, IInstruction, and Research" in F. Mosteller & R. Boruch (Eds.), *Evidence Matters: Randomized Trials in Education Research*, (pp. 80–119). Washington, DC: Brookings Institution Press.

Corbin, J. & Strauss, A. (2008). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage.

Davis P. & Hopwood V., (2002). "Including Children with a Visual Impairment in the Mainstream Primary School Classroom," *Journal of Research in Special Educational Needs*, Volume 2, Issue 3, pp 123-129.

Desimone, L., Porter, A. C., Garet, M., Yoon, K. S., & Birman, B. (2002). "Does Professional Development Change Teachers' Instruction? Results from a Three Year Study" *Educational Evaluation and Policy Analysis*, 24 (2), pp 81–112.

deVous, D. (2001). *Research Design in Social Research*. London: Sage Publications.

Erickson, K.A., Deborah H., Vicky R., DanaLee Fox., and Diane R. (2007) "Literacy in Early Intervention for Children with Visual Impairments: Insights from Individual Cases," *JVIB,* Volume 101, Number 2, PP 1-26.

Fishman, B. J., Marx, R. W., Best. S., & Tal, R. T. (2003). “Linking Teacher and Student Learning to Improve Professional Development in Systemic Reform” *Teaching and Teacher Education*, Vol.19, pp643–658.

Flick, U. (2007). *Designing qualitative research*. Thousand Oaks, CA: Sage.

Flyvbjerg, B. (2011). “ Case Study” in Norman K. Denzin and Yvonna S. Lincoln, eds., *The Sage Handbook of Qualitative Research*, 4th Edition, Thousand Oaks, CA: Sage, pp. 301-316.

Garet, M. S., Porter, A. C., Desimone, L. M., Birman, B. F., & Yoon, K. S. (2001). “What Makes Professional Development Effective? Results from a National Sample of Teachers” *American Educational Research Journal*, 38 (4), 915–945.

Glaser, B. & Strauss, A. (1967). *The discovery of grounded theory*. Chicago,IL:Aldine.

Green, F. (2011). *What is Skill?* An Inter-Disciplinary Synthesis published by the Centre for Learning and Life Chances in Knowledge Economies and Societies at: http://www.llakes.org.

Guskey, T & Sparks, D. (2004). Linking Professional Development to Improvements in Student Learning, in E. M. Guyton & J. R. Dangel (Eds.), *Research Linking Teacher Preparation and Student Performance: Teacher Education Yearbook XII* (pp. 233–247). Dubuque, IA: Kendall/Hunt.

Gutman, C. (2007). “The Obstacles Encountered by Tanzanian Visually Impaired Women in Accessing Aand Gaining an Education,” *RELOADED Disability Studies Quarterly Fall*, Vol. 27, No.4.

HakiElimu, (2007). *What Has Been Achieved in Primary Education? Key Findings from Government Reviews*, October 2007. HakiElimu, Dar es Salaam.

HakiElimu, (2008a). *Do Children with Disabilities Have Equal Access to Education*?, Dar es Salaam: HakiElimu.

Herzberg, F. (1968). One more time: how do you motivate employees? *Harvard Business Review*, January-February, pp 109–20.

Hiebert, J., & Grouws, D. A. (2007). "The Effects of Classroom Mathematics Teaching on Students' Learning" in F. K. Lester (Ed.), *The Second Handbook of Research in Mathematics Education*. Reston, VA: New Age and National Council of Teachers of Mathematics.

Johnson, B. & Christensen, L. (2012). *Educational research: Quantitative, qualitative, and mixed approaches* (4th ed.). Thousand Oaks, CA: Sage.

Johnson, B. and Christensen, L. (2010) *Educational Research: Quantitative, Qualitative, and Mixed Approaches*. UK: SAGE.

Kapinga, O. (2002), *Professional Development among Educators Pursuing a B. Ed Program in Special Education in Tanzania: A Study of Motives and Perceived Outcomes*, Abo: Abo Akcademi University Press.

Khurshid, F. & Sufiana, K. (2011. Perception of Visually Impaired Youth about Familial, Academic and Caregivers Support. *Global Journal of Human Social Science*, Vol. 11 Issue 9.

Komba, W. & Ndibalema, A. (2009). *Improvement of Teaching and Learning Process for Quality Education Outcomes*. A paper presented at the Annual Joint Sector Review held at The Water Front Building-Dar es Salaam, 5th - 7th October 2009.

Kothari C. R. (2004). *Research Methodology, Methods and Techniques*, 2nd edt, New Age International (P) Limited publishers.

Krippendorf, K. (2004). *Content analysis: An introduction to its methodology* (2nd ed.). Thousand Oaks, CA: Sage.

Kvale, S. & Brinkmann, S. (2009). *Interviews: Learning the Craft of Qualitative Research Interviewing*, Los Angeles, Calif., Sage.

Lance, H. (2007). *The Historical Development of Program Evaluation: Exploring the Past and Present.* Online Journal of Workforce Education and Development Volume II, Issue 4 – Fall 2007.

Macha, A. (2002) *Gender, Disability and Access to Education in Tanzania*, Doctor of Philosophy Thesis of the University of Leeds.

Mboya, M. & Possi, M. (1996). "The special child in Tanzania Primary schools," *Paper for Education and Development*, 17, 52-64.

McCutchen, D., Abbott, R. D., Green, L. B., Beretvas, S. N., Cox, S., Potter, N. S., Quiroga, T & Gray, A. L. (2002). "Beginning Literacy: Links Among Teacher Knowledge, Teacher Practice, and Student Learning" *Journal of Learning Disabilities*, 35 (1), pp 69–86.

Mmbaga, D. R. (2002). *The Inclusive Classroom in Tanzania: Dream or Reality*? Stockholm: Institute of International Education, University of Stockholm.

Mnyanyi, C. B. F. (2014). *Changing Teachers' Practices in Regular Schools Enrolling Children with Visual Impairment*, Doctor of Philosophy Thesis of Åbo Akademi University in Finland.

Msonde, C. E. (2011). *Enhancing Teachers' Competence on Learner Centred Approaches through Learning Study in Tanzania Schools*, Dissertation for submission for the degree of philosophy at the University of Hong Kong.

Mwakyeja, B. (2013). *Teaching Students with Visual Impairment in Inclusive Classrooms.* A Case Study of Secondary School in Tanzania. Master Thesis submitted for the master of philosophy in special needs education University of OSLO.

National Research Council. (2004). *On Evaluating Curricular Effectiveness: Judging the Quality of K-12 Mathematics Evaluations*. Washington, DC: National Academies Press.

Nimmo, S. (2008) *Examining the Factors of Successful Inclusion of Students with Vision Impairment*, Coursework Project in Special Education, Flinders University

Oso, W. Y. and Onen, D. (2008) *A General Guide to writing Research Proposal and Report. A hand Book for Beginning Researchers.* Second Edition. Makerere University, Kampala, Uganda.

Pascolini, D. & Mariotti, S. P. (2011). Global estimates of visual impairment: 2010. *Br J Ophthalmol* bjophthalmol-300539.

Patton, M., (2002). *Qualitative research and Evaluation Methods*. Thousand Oaks, Ca: SAGE Publications practices: a Zimbabwean experience". In International studies in Research.

Richardson, V. & Placier, P. (2001). Teacher change. In V. Richardson (Ed.). *Handbook of Research on Teaching* (4th Ed., pp. 905–947) Washington, DC: American Education Research Association.

Rooks-Ellis, D. L. (2014). “Inquiry-Based Education for Students with Visual Impairment” *ISRN Education* Vol. 2014, Article ID 361685, 7 pages.

Rossi, P. H., Lipsey, M. W. & Freeman, H. E. (2004). *Evaluation: A systematic Approach* (7th Ed.) Thousand Oaks, CA: Sage Publications.

Saunders, M. (2003) *Research Methods for Business Students*. South Africa: Pearson Education.

Saxe, G. B., Gearhart, M., & Nasir, N. S. (2001). “Enhancing Students’ Understanding of Mathematics: A Study of Three Contrasting Approaches to Professional Support” *Journal of Mathematics Teacher Education*, Vol 4, pp55–79.

Scott, R. (2009). *Undergraduate Educational Experiences: The Academic Success of College Students with Blindness and Visual Impairments*, dissertation of the Degree of Doctor of Philosophy in Education of North Carolina State University.

Senge, J. (2000) *Schools that Learn,* Doubleday Publishing Group, New York.

Somekh, B. & Cathy, L. (2005) *Research Methods in the Social Sciences*, SAGE Publications Ltd, New Delhi.

Spillane, J. P. (2000). *District Leaders’ Perceptions of Teacher Learning* (No. CPRE Occasional Paper Series OP-05). Philadelphia: Consortium for Policy Research in Education.

Sprinthall, N. A., Reiman, A. J., & Thies-Sprinthall, L. (1996). “Teacher Professional Development” in J. Sikula (Ed.). *Handbook of Research on Teacher Education* (2nd Ed., pp. 666–703). New York, NY: Macmillan.

Supovitz, J. A. (2001). “Translating Teaching Practice Into Improved Student Achievement. In S. Fuhrman (Ed.), *National Society for the Study of Education Yearbook*. Chicago, IL: University of Chicago Press.

Taylor, H. R., Pezzullo, M. L. & Keeffe, J. E. (2006). The economic impact and cost of visual impairment in Australia. *British journal of ophthalmology* 90 (3): 272–5.

The African Child Policy Forum, (ACPF). (2013) http://www.africanchildforum.org.

Tienken, C. H. (2003). *The effect of Staff Development in the Use of Scoring Rubrics and Reflective Questioning Strategies on Fourth-Grade Students’ Narrative Writing Performance*, Dissertation Abstracts International, 64(02), 388A. (UMI No. 3081032).

Trochim, W. M (2005). *The Research Methods Knowledge Base* (2nd Ed.). Retrieved on October 20, 2013 accessed at www.socialresearchmethods.net/kb.

UNESCO, (1990) *World Declaration on Education for All*, resulting from the UNESCO conference in Jomtien, Thailand UNESCO Institute of Statistics.

URT, (2003a) *Government Teachers’ Scale*, Tanzania.

URT, (2003b) *Education Sector Public Expenditure Review 2003*, Tanzania.

URT, (2006). *Education Sector Development Programme (ESD): Primary Education Development Programme II (2007-2011)*, Ministry of Education and Vocational Training, Dar es Salaam.

Vroom, V. (1964) Work and Motivation**,** Wiley, New York.

Waddell, K. M. 91998). Childhood blindness and low vision in Uganda. *Eye* 12, 184–192.

Wayne, A., Yoon, K. S., Cronen, S., Garet, M. S & Zhu, P. (2007). *Issues in Designing Randomized Field Trails of Teacher Professional Development*. Paper presented at the annual meeting of the Association for Public Policy Analysis and Management, Washington, DC.

Wills, J. (2007). A Framework for Task-Based Learning in Dave and Jane Willis (Eds) *'Doing Task-Based Teaching'* Longman: OUP.

Yin, R. (2003). *Case Study Research: Design and Methods.* Thousand Oaks: Sage.

Yoon, K. S., Garet, M., Birman, B & Jacobson, R. (2007). *Examining the Effects of Mathematics and Science Professional Development on Teachers' Instructional Practice: Using Professional Development Activity Log*. Washington, DC: Council of Chief State School Officers.

Zwald, K. J. (2008) *Perceptions of Teachers of Students with Visual Impairments on the Importance of Physical Activity and Its Effect on Their Students' Academic Success and Social Interactions,* A Doctor of Philosophy Dissertation of the University of Arizona.

APPENDICES

APPENDIX I: Questionnaire for Teachers

Dear respondent, the aim of this questionnaire is to seek views about assessment of the teachers' skills in supporting visually impaired children in primary schools in Dar es Salaam. Please feel free to fill in this brief questionnaire intended for academic purpose. The information collected will be treated confidentially.

Information background of the respondents

1. Please indicate your highest level of education by putting a tick in the appropriate bracket

Primary	[ ]
Ordinary level secondary school (O-Level)	[ ]
Certificate	[ ]
Advanced secondary school (A-Level)	[ ]
Diploma	[ ]
Bachelor Degree	[ ]
Master's degree	[ ]

2. Your sex/gender (please, tick only one answer).

   Male [ ] Female [ ]

3. How long have you been working with visually impaired children?

1-5years	[ ]
6-10 years	[ ]
11-15	[ ]
16-20	[ ]

21 and above [ ]

Teachers' skills in supporting children with visual impairment

4. Did you attend teachers' straining for visually impaired children?

   Yes [ ] No [ ]

5. How long did you attend training for visually impaired children?

   Less than one year [ ] One year [ ] Two year [ ] More than two year [ ]

6. When do you apply visually impaired students centred approach?

   Often [ ] Where applicable [ ] Rarely [ ]

7. Can you transcribe teaching materials into brail or large print?

   Yes [ ] No [ ]

8. Have you ever modified materials like text books to accommodate information not available for visually impaired children?

   Yes [ ] No [ ]

9. Can you effectively communicate with visually impaired children?

   Yes [ ] I don't know [ ] No [ ]

10. Have you attended any course of computer skills for visually impaired children?

    Yes [ ] No [ ]

11. Do you exercise orientation and mobility to children with visual impairment?

    Yes [ ] No [ ]

Strategies in developing teachers' skills in supporting children with visual impairment

12. Is pre and in-service visual impaired training for teachers necessary for developing their skills?

    Yes [ ] No [ ]

13. Are regular assessment necessary among teachers to build their skills in supporting children with visual impairment?

    Yes [ ] No [ ]

14. Is practical learning helpful to build teachers' skills in facilitating children with visual impairment?

    Yes [ ] No [ ]

15. What other strategies do you think can be used to develop teachers' skills in supporting children with visual impairment?

……

……

……

Support services provided to children with visual impairment

16. Are children with visual impairment motivated in their studies and life in general?

    Yes [ ] No [ ]

17. Are children with visual impairment given moral support by general public?

    Yes [ ] I don't know [ ] No [ ]

18. Does society support children with visual impairment in learning activities?

    Yes [ ] No [ ]

19. Are children with visual impairment given sufficient material support like basic needs?

Yes [ ] I don't know [ ] No [ ]

20. Are children with visual impairment given sufficient learning materials including computers?

Yes [ ] No [ ]

21. Are children with visual impairment given mobility instruments regularly?

Yes [ ] No [ ]

Challenges facing children with visual impairment in developing their skills

22. Is physical infrastructure for visually impaired children friendly to them?

Yes [ ] No [ ]

23. Is the number of students with visual impairment in the classroom match with the recommended one?

Yes [ ] No [ ]

24. Are there enough modern learning and teaching materials for visual impairment?

Yes [ ] I don't know [ ] No [ ]

25. Are teachers with visual impaired professionalism adequate?

Yes [ ] I don't know [ ] No [ ]

26. Are the curricula for visual impaired children based on students' centred approach?

Yes [ ] I don't know [ ] No [ ]

27. Is the culture of the society motivates teaching and learning of children with visual impairment?

Yes [ ] I don't know [ ] No [ ]

28. Is the fund allocated for visual impaired children in schools adequate and delivered in time?

Yes [ ] No [ ]

29. Are you really motivated to work with children with visual impairment?

Yes [ ] No [ ]

THANK YOU VERY MUCH FOR YOUR SUPPORT

APPENDIX II: Interview Guide for Children with Visually Impaired Children

Dear respondent, the aim of this questionnaire is to seek views about assessment of the teachers' skills in supporting visually impaired children in primary schools in Dar es Salaam. Please feel free to respond to these few questions intended for academic purpose. The information collected will be treated confidentially.

1. Do you think your teachers have sufficient skills in facilitating your learning?
2. Can you mention some of the skills do you think your teachers poses?
3. Are there any challenges you face during learning and life in general?
4. Can you mention those challenges?
5. Do you think teachers need to develop their skills in supporting children with visual impairment? Can you give your reasons in regards to your answer?
6. Can you mention the support you get from?
    a. Your friends
    b. Teachers
    c. Parents
    d. General community

THANK YOU VERY MUCH AND GOD BLESS YOU