UNIVERSITY OF NAIROBI

CHALLENGES IN TEACHING VISUALLY IMPAIRED STUDENTS IN KENYA: THE CASE STUDY OF KITUI SECONDARY SCHOOL IN KITUI CENTRAL

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DECLARATION

This research report is my original work and it has never been presented in any other university or institution for award of degree.

Signature………………………..   Date……………………………….

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This research project has been submitted for examination with my approval as a university supervisor;

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DEDICATION

I dedicate this work to my dear wife Brenda Nanjala Opete, and my children Gloria Peace and Brighton Muimi for offering me their valuable time and family resources to use in undertaking this project. To my parents Mr. and Mrs. Moses Kathuli, my brothers and sisters Abraham Eskuri Charles Mwalimu and Lucy Adur for their emotional and financial support. All my friends, the staff of Itoloni mixed secondary school especially Mr. Onesmus Mulwa and Mr. James Muthui for their support during my project work. God bless you all.

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Am very grateful to the almighty God who has blessed me with a health life during my project work. My acknowledgement goes to the university of Nairobi department of psychology for their crucial role in guiding supporting and encouraging me particularly Dr. Karen T. Odhiambo for her guidance and constructive critique in my project work.

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ABSTRACT

The general objective of the study was to investigate the obstacles encountered by teachers who teach students with visual impairment. The specific objectives were; (a) To understand the level of knowledge of the teachers in inclusive schools. (b) To identify the techniques employed by regular teachers in assessing the needs of these learners. (c) To establish the adaptation techniques employed by the teachers of these students in teaching. (d) To establish the extent to which regular teachers work with experts in special needs education as well as parents of students with visual impairment to deliver quality education in classes that are inclusive of students with visual impairment.

Purposive sampling was involved so as to determine the teachers to be involved in the study. 38 teachers were selected for interview and 26 for observation. The data collected was analyzed through thematic or content analysis on interview items that were open ended and observations made while tables and graphs were used on interview items relating to social and demographic characteristics of the respondents.

The study established that despite most of the teachers having degrees and able to handle their subjects of specialization their knowledge and ability to handle learners with visual impairment was low. This was associated to the fact that most of them had no formal training on special needs education. Secondly the teachers were using suitable methods of assessing the learner's needs. However since their knowledge on the same was limited they had challenges in doing so. Further availability of assessment tools was a challenge. Thirdly is that researcher established that adaptation techniques were being used. However inadequacy of adaptation resources and time constrain posed a major challenge to adaptation. Finally the teachers had a proper understanding of the concept of collaboration. In fact collaboration with the parents and other stakeholders was at 79%. However some of the respondents were not comfortable with it.

Conclusion indicated that appropriate policies of inclusivity in education and guidelines needed to be developed as well as training the teachers on approaches of handling these learners in inclusive classes and recruiting of special education specialists to guide the regular teachers.

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LIST OF ACRONYMS AND ABBREVIATIONS

BEST- Basic Education Statistics in Tanzania

CBC- Competency Based Curriculum

CRPD – Convention of Rights for Persons with Disability

EFA- Education for All

EHA- Education for All Handicapped children

GOK- Government of Kenya

GOUSA- Government of United States of America

ICC- International Conference Centre

IEP- Individual Education Plan

IJEDICT- International Journal of Education and Development using Information and Communication Technology

KESSP- Kenya Education Sector Support Program

KIEP- Kenya Integrated Education Program

KISE- Kenya Institute of Special Education

KSB- Kenya Society for the Blind

MDG- Millennium Development Goals

NACOST- National Commission for Science, Technology and Innovation

NBACL- New Brunswick Association for Community Living

NGO- Non-Governmental Organization

REI- Regular Education Initiative

SNE- Special Needs Education

TFDPO-Tanzania Federation of Disabled People Organization

URT- United Republic of Tanzania

UN-United Nations

UDHR- Universal Declaration of Human Rights

UNESCO- United Nations Educational Science and Cultural Organization

USA- United States of America

CHAPTER ONE

INTRODUCTION

This chapter explores the background information as to why the research was done. It also shows the purpose of study, objectives, the questions researched, and significance of the study, justification of the study as well as scope and limitations of the study and definition of key terms.

1.1 Background of the Study

The research looked into the challenges teachers were facing while teaching learners who are visually impaired. The Kenyan constitution (2010) provides a guarantee to basic education which is free and mandatory to all Kenyans. Article 54 of it outlines that people with special needs are guaranteed access educational institutions as well as facilities that have been modified in a way that address their special needs and interests (GOK 2010). As a basic human rights of all people in the society, the visually impaired are entitled to such basic education. Such is as required by the Education for all (EFA) which is a strategy placed by United Nations organization that deals with educational, and scientific as well as cultures (UNESCO) for ensuring provision of equal and quality education opportunities. This has to be irrespective of their socioeconomic and cultural background, ethnic group or even the disability condition. Inclusive education is a good strategy that has been employed in Kenya so as to achieve EFA (Eklindh and van den Brule Balescut 2006). Just as it is with many other nations Kenya has ratified the Salamanca statement among other documents prepared and adopted by UN (TFDPO 2010).

The history of special education can be traced about 50 years ago. Most of states and countries have been in existence for centuries and have had legislations guiding on education and other issues affecting mankind. However in early 1970s countries started legislating on special needs equal opportunities with other learners. It is important to note that these legislations came to existence as a result of tough advocacy battles that were led by civil societies mainly comprising of parents of children with disabilities. First of these advocacy groups were made in 1930s. By 1950s they were lobbying for training of special education teachers and by 1960 a number of legislations for funding special education were being made.

In 1970 a court decision in USA was made giving states the responsibility of providing facilities and resources required for special education schooling. (USA Rehabilitation Act of 1973, EHA act of 1975). By 1990s countries legislated so as to ensure that learners with disabilities don't just

get education but quality education. By 2000s every child was being required by the various legislations to access quality education. Such include the USA Act of 2001 that guarantees education to every child.

To date we are experiencing increasing number of students who have special needs graduating from secondary schools. In this a number of countries have used inclusive approach of having these learners learn from the normal classroom with their peers. This idea of inclusion of learners with special needs was first legislated by USA congress in 2004 with the aim of having the learners access general curriculum and at the same time have their unique needs met (government of USA 2004).

Despite having such developments in the realm of education for learners who are having special needs very little is done here in Kenya. For instance a few legislations were made up to late 1980s when KISE was established there was no centralization of training of teachers for students who have special needs .A few of schools for learners with special education have been established majority of which have been done by faith based organization such as Catholic Church and the Salvation Army. (Bishop Donald McKeon press release 2010)

In 2003, The Persons with disabilities Act was enacted and formulation of special needs Education policy in 2009. There has also been establishment of the directorate of special needs Education under the Education ministry which was put in place in 2013.This was key in ensuring efficient delivery of educational services to learners with special needs(GOK 2003; GOK 2009).

Of great importance is the incoming competency based curriculum (CBC) which is expected to be of great significance to learners with special needs. In its framework it has categorized special education in 15 categories and that include: the visually impaired, hearing impaired, Physically handicapped, mild cerebral palsy, learning disability, mild moderate autism, communication disorder , emotional and behavioral disorder, gifted and talented learners, mental handicapped, deaf-blind, severe autism, moderate and severe cerebral palsy, multiple handicapped and profound disabilities (GOK 2010). Unlike in the 8:4:4 system the new curriculum provides for home-based and hospital interventions which are to take care for learners with serious disabilities to an extent of not about to attend formal schools.

There has been a debate among the educationists on inclusivity of education for the learners who have special needs. The proponents of this kind of education puts it that it's a civil right for the affected students. Further they claim that if these learners are not included in the mainstream their potential will be destroyed as well as their societal cohesion (Reinser and Manson 1992). On the other hand the group against this kind of education argues from an educational effectiveness point of view. They claim that each individual has right to receive a kind of education that is effective to the type of need that they have. For instance Liu (1995) and Hegarty (1987) claims that priority is the most effective kind of placement. They further argue that if a learner is included in a mainstream that is not well equipped or organized in a way that educate the learners maximum will be damaging them and becomes a hindrance to the productivity of both the learner and the institution in future.

However, implementation of inclusive education among the learners with disabilities seems to be complex. The same was so since there are no clarity of policies guiding on implementation of inclusivity in education among developing countries such as Kenya and Tanzania (Gronlund, Lim and Larsson 2010; Mwoma, 2017). Failure by the government to provide clear guidelines as well as absence of efforts to produce an environment that is conducive becomes a hindrance to implementation of inclusivity in education even if there would be recruitment of enough teachers in such learning institutions (Gronlund and Larson, 2010; Mmari, Mzee and Frankenberg, 2008; URT, 2008).

Although there is a slight increase of teacher recruitment in Kenya, the ratio of teachers to learners is still below the required standard (URT 2011). In addition the teachers available in these institutions have inadequate knowledge to teach in these schools. This leads to using poor methods of teaching as well as the procedures used in assessment for delivering to learners who are having specials needs (Daily News, 2012; Gronlund, Lim and Larson, 2010). Because of such factors the performance of the learners with special needs is affected and in particular the learners with visual problems. In teaching effectively the learners with visual problems the regular teachers should strive to acquire adequate knowledge on inclusivity and its appropriate education as argued by Mmbaga 2002 and URT, 2008.

According to Mwoma, (2017) in his journal on Education for the learners who are having special needs in Kenya, there is a big difference between the number of primary school learners who are visually impaired and their coundapats in secondary schools. Those in secondary school are fewer compared to those in primary school. This therefore suggests that the learners who have visual impairments proceeding to secondary school are fewer than the actual number of learners who enroll in primary school or there is a high rate of school dropout among students with visual impairment in high school. The question arises then as to why small number of students progress to secondary school. Satu Santala who was the first embassy secretary send by Finland to Tanzania when presenting in a workshop that was discussing issues of inclusivity and gender in education observes that there were very many challenges in the sector of education in a whole that leads to leaners with special needs performing poorly in school and even those enrolled dropping from school (ICC 2008). He attributes this to the pedagogies used in teaching the students with visual impaired in these classes that are inclusive. Absence of methods that are reliable and conducive in teaching these learners in classes that are inclusive is one of the major reasons for preferring this research topic (Daily News, 2012b; Gronlund, at.al 2010)

Studies related to inclusion and more so, inclusivity of the learners who are visually impaired in Kenya are limited. This leads to insufficiency of knowledge in teaching students who are visually impaired and more particularly in Kenya. This research therefore hoped to contribute in filling the gap of knowledge that exists in Kitui School and in Kenyan at large. The study will help the teachers in Kitui School and Kenya at large who are having similar challenges when handling the visually impaired learners and make the necessary changes so as to cater for the needs of these leaners effectively.

The study also acts as an awakening call to the education authorities in order to be aware of these challenges and employ the appropriate methodologies in delivering to the visually impaired learners.

1.2 Statement of the Problem
According to (UNESCO ,1994) Nations are entitled to adhere to the principle of inclusion, integration, participation and have a good and affordable approach that promotes equality and access to education for students that are having unique needs that affects learning negatively as one of strategies of ensuring everyone achieves education. Further, the Salamanca statement

provides that every nation ensures that their policies and education system puts legislations that recognize the principle of equality, children with special needs should have an opportunity to attend the nearest school, where the learners are only supposed to be exceptional if the school does not address the special needs of the child with disability.

The Convention of United Nations on the Rights of Persons with Disabilities (CRPD, 2006) requires that each state that ratified the convention must ensure an inclusive education system at all levels and that all the persons with disabilities have the right to free primary and secondary education and cannot be discriminated based on their disability.

The Millennium development goal MDGs (2000) emphasizes the need to ensure education for all. The goal 2 of the MDGs postulates that by 2015 all the member states were to guarantee universal primary Education for all learners regardless of their gender, social, cultural, and religious and ethnicity diversity (UN, 2000).

Statistics globally have indicated that on average one billion people are disabled, of which four fifths persons are living in third world countries. Further 93 million of the people are children of 14 and below and have either moderate or severe disability of which this is an age of school going children (UNESCO, 2015). According to the global monitoring report of 2010 approximately 77 million children were not accessing education. Further it showed that a third of this were having disabilities (UNESCO, 2010).

About 1.7 million people approximately live with disability in Kenya (Kenya national survey for persons with disability(2008).They contended that 39% of these population attend the mainstream education in Kenya, and only 9% of this population attend high school Kenya National Council for population and development(2008)

Low participation in class and low academic performance by the learners who are visually impaired results to low levels of education among the learners with special needs (Sight saver International, 2010).

According to Mader and Butrymowicz (2017) more than a third of the learners who are having disabilities and that enrolls a college or university program expected to take four years ends up graduating within eight years.

US Federal government conducted a study that followed learners for couple of years after they had left high school and published a report in 2011. Its findings were that special education learners were less likely to join and pursue to Completion College and if they did and started working, then they earned nearly $4 for every hour compared to their former colleges in general education.

Very few children with disabilities enroll for education. Even the few who enroll have very high possibilities of dropping out of school early before transiting to secondary school as well as higher learning institutions. (GCE, Equal right, Equal opportunity report, 2014).

Literature on the relationship between the performances of visually impaired learners is limited.

Although we had teachers teaching learners in an inclusive in classrooms in Kenya as early as 1994. We also have policies that provide that learners who have special needs should be given quality education. Yet their performance in school is far much below the expectation. This means that the expectation that students having special needs in settings that are inclusive will attain academic performance as they do their counterparts who are sighted is not met. This research therefore examined the factors that affect the performance of learners who are visually impaired in inclusive classrooms.

1.3 Purpose of the Study
The major purpose of the study was to investigate how the general education teachers teach the visually impaired learners and the obstacles to the learning of this category of learners. The study aimed at proposing the appropriate teaching methodologies to the teachers handling these learners. It also aimed at bridging the knowledge gap that exists in terms of the pedagogies employed by the teachers of this category of learners.

1.4 Objectives of the Study
The study was guided by the following objectives;

(a) To understand the level knowledge of the teachers in inclusive education
(b) To identify the techniques employed by the regular teacher in assessing the needs of students who are having visual impairments.
(c) To establish the adaptation techniques employed by teachers in handling the students with visual impairment.

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(d) To establish to what extent do regular teachers work with other relevant education stake holders for delivery of education of high quality to learners with visual impairment.

1.5 Research Questions

(a) What is the level of knowledge of regular teachers in inclusive education?

(b) What techniques are employed by general education teachers in assessing the needs of the students who have visual impairment?

(c) What are the adaptation techniques employed by the teachers in handling the visually impaired learners?

(d) To what extent do the teachers work with specialists in special needs education, parents of the learners with visual impairment as well as other education stakeholders in order to deliver quality education in inclusive Class rooms?

1.6 Significance of the Study

The study hoped to bring in deeper understanding of the issue of visual impairment as well as the problems that teachers come across as they teach these students. The study therefore aimed at assisting education stakeholders in coming up with programs that are beneficial to the students with visual impairment. The study also sot to benefit the students with visual impairment since it enables the government and other education stakeholders to respond to the problems faced as these learners acquire education. Thirdly the study hoped that the educational policy makers benefits from the recommendations of the study as they come up with relevant policies and correcting the existing anomalies in education of learners with visual impairment.

1.7 Justification of the Study

Inclusivity of special needs education as a principle of human right to education can be traced in the universal declaration of human rights (UDHR) of 1945. The Salamanca statement of 1994 had inclusivity of learners with special needs as their main agenda of which Kenya was represented and ratified the charter (UNESCO 1994). On her side USA congress put in place laws on how inclusivity should be done for education of learners with special needs in 2004 (Government of USA 2004). However (Gronlund et.al 2010 and Mwoma 2017) agrees that there are no clarity of policies put in place on how to implement inclusive education in third world countries such as Kenya and Tanzania.

This therefore called for a research on how inclusive education was being conducted in such an educational environment and the challenges that are faced in during implementation of the same. Kitui School is not an exception of this. This research therefore indented to establish how inclusive education was being carried out in Kitui School and the obstacles encountered.

1.8 Scope and Limitation of the Study
Since the study took a case study design it covered Kitui School which is a secondary school as a sample of schools including students who have visual impairment in the mainstream class setting. This study also sought to establish the level of knowledge and experience the teachers in inclusive schools had.

The study limited itself in Kitui School which is a secondary school as an institution and the teachers teaching in the school. For more conclusive results there is need for research in all inclusive schools with learners with visual impairment. This should take care of both primary and secondary schools.

1.9 Definition of Key Terms and Concepts
Convention- It refers to an agreement that is signed by representatives of different countries on a particular issue of common interest.

Cost effective education- An education system that uses a financial approach that is affordable to both the consumer and the government.

Co-teaching- This is an approach of teaching that involves two or more teachers teaching in one class concurrently. In the case of this study one of the teachers has to be special needs education teacher specialized in visual impairment.

Inclusive education- This is a kind of education that guarantees education to all learners regardless of gender, religious background, race and disability status. In this case inclusion involves disability of learners with visual problems.

Individual education plan- this is a both short term and long term plan usually a year or term prepared by teachers of learners with special needs on a specific learner's achievements and weaknesses and teaching strategies so as to improve the learner's weak areas.

Mainstream schools- These are general schools that any learner with no special need attends for normal learning process then those with special needs are also included. This is in comparison to the case where learners with special needs are taught separately in special schools.

Pedagogy – These are teaching approaches that are employed by any particular teacher.

Structure – these are rules and regulations that are put in place so as to guide how people in a society behave.

Visual impairment- This a general term to refer to the situation where people have eye problems. These can either be blind or having low vision.

CHAPTER TWO
LITERATURE REVIEW

2.1 Related Studies

2.1.1 Study One

A study that was conducted by Sandra Tsoenemawu Sikanku on the challenges in teaching pupils with visual impairment in inclusive classrooms: the experience of Ghanaian teachers had a purpose of investigating the teacher's challenges when teaching pupils who were having visual impairment in inclusive classrooms in Ghana. Sandra had the following as her objectives establishing weather there was adequate provision of the necessary teaching and learning materials, establishing the ability of the teachers to work with the relevant educational stakeholders. Third objective was to establish the teachers view on the suitability of the school environment in supporting teaching of learners with visual impairment and lastly was to investigate whether teachers were able to adequately attend to the needs of all pupils.

Her findings included the following: unavailability of the appropriate braille skills among the teachers indicated that 34.5 % felt it was very true they did not have the skills, 24.1% said it was true while 41.4% felt it was not true and that they had the skills. On availability of adequate teaching and learning materials to use in teaching the learners with visual impairment 41.4% felt that it was very true they did not have adequate materials, 43.1% said it was true while 14.0% had it that it was not true and that they had adequate materials.

Another issue of investigation was on the ability to involve other stakeholders in in planning the learner's individual education plan. On this issue 30.4% felt it was very true they did not have the ability while 39.0% said it was true and 30.4% said it was not true. Further 47.4% said it was very true they had difficulties on getting the parents of the pupils with visual impairment to discuss vital information. At the same time 45.6% said it was true and 7.0% said it was not true and that they had no difficulties in getting the parents.

On the question of whether they were getting braille textbooks 68.4% strongly agreed that they were not getting the books while 24.1 agreed that they were not getting and 7.0% said that they were getting the books. On the issue of class size and ability to offer individual attention the following came out; 45.6% strongly agreed that they were not able to offer individual attention while 28.1% agreed and 25.9% disagreed.

On infrastructure and easy mobility among the learners teachers had the following; 68.5% strongly agreed that the environment and infrastructure was not fit for the learner's movement while 24.1% agreed and 10.3% disagreed.

2.1.2 Study Two

A study by Baraka Michael Mwakyeja on teaching students with visual impairment in inclusive setting which was a case study of one secondary school in Tanzania had its purpose as investigating the way general teachers teach students who are having visual impairment and the challenges that those teachers were facing.

Objectives of his study included the following; exploring the knowledge of general teachers on inclusive education. Secondly was to identify the ways that the general teachers were using to assess the learning needs of the learners with visual impairment in inclusive classrooms. Thirdly was to establish the way general teachers adapted their methods of teaching for the learners who were having visual impairment in inclusive classrooms. Finally was to establish the extent to which the general teachers were collaborating with special needs educators as well as the parents of the students who were having visual impairment in order to provide quality teaching in inclusive classrooms.

In his study Baraka had following as his finding; on knowledge of teachers on inclusive education he found that most of the teachers had basic knowledge on the concept of inclusivity in education. Further he established that teachers had some theoretical knowledge on strategies for assessment of learners needs. However he established that implementation of the said strategies posed a challenge to most teachers. Mainly he says that this problem was associated to the classes being too large.

On adaptation of the teaching methods Baraka established that teachers were aware of the need to adapt their teaching methods. However his study indicated that the same teachers were struggling to make the appropriate adaptation of their teaching methods. This evidenced that they had insufficient knowledge on the adaptation.

On the issue of collaboration between general teachers and special needs education stakeholders he established that collaboration was lacking. On this the main challenge was scarcity of the special education teacher as well as absence of commitment among the teachers.

2.1.3 Study Three

A study conducted by Mercy Mugambi on challenges facing teachers teaching learners with visual impairment in integrated schools. She used a case study of Moi girls' secondary school in Nairobi.

The purpose of her study is that she sort to find out the challenges that were faced by teachers while teaching children who were having visual impairment in integrated schools. She had five objectives that included; determining whether teachers were having adequate training on teaching students with visual impairment, establishing the challenges that teachers were going through as they adapted syllabus for the students who were having visual impairment. Her third objective was to investigate the problems that the teachers were encountering as they were teaching the students with visual impairment. Fourth objective was establishing whether the teachers were receiving guidance from the ministry of education on matters of teaching students who are visually impaired and lastly was to get suggestions of the teachers on integration of learners with visual impairment.

 She indicated that 67.5% of the respondents had a qualification of a diploma, 27.5% having bachelor's degree and 10% with master's degree. However on the question on training on special needs education her study indicated that 65% of respondents had a certificate 27.5% with a diploma 5% with degree and 2.5% with a master's degree.

Further her study indicated that 92.5% had attended an in-service training while 7.5% had not attended such training. While on workshops and seminars 57.5% had attended seminars and 42.5% attending workshops on training learners with visual impairment. She argued that such training was necessary for equipping the teachers with the necessary modern teaching skills.

Further her findings established that 90% of the respondents were finding it difficult to integrate the learners with visual impairment in to regular classes. She expresses that 45% indicated that much time was being used, 47.5% had learner with low speed in using learning materials. She further found that 77.7% were for the view that learners with visual impairment were wasting time for the others. While 97.5% felt that the learners with visual impairment were a failure in comparison with the other learners.

Further mercy established that these teachers sighted the following problems: demands from the school administrators was cited by 82.5% while poor learning facilities was cited by 77%. She had 70% of respondents who felt that there was no adequate provision of specialized materials was not

adequate. Extreme expectations by stake holders was also sighted by 52.5%. She established that 35% felt that the time allocated was not adequate.

On the issue of assistance by the school in resolving the existing problems was responded to as follows; she had 25% who felt that special classes were being constructed, 25% had been allocated more time to cater for the learners while 25% were satisfied with the printing of the learning materials.

On her last issue mercy established that Kenya institute of curriculum development had provided assistance as follows development of teaching materials was rated at 30% while 25% felt that the relevant teaching materials were being provided.

2.1.4 Summary of Outcomes

In a nutshell the three researchers from three different countries had their research on the issue of education of learners with visual impairment and have their finding correlate in a way that suggests that education of learners with visual impairment was having challenges. The challenges realized by these researchers include issues relating to the teachers ability to deliver to the learners with visual impairment, inability of teachers to use the appropriate teaching methods, unsupportive learning environment that includes provision of appropriate materials and infrastructures. Other issues were seen to be administrative either from the local school administrators or higher government authorities. However the level to which these challenges are reported seems to be different among the researchers. This can be attributed to different countries where social, political and economic life is different and can hence influence the difference.

2.2 Related Literature

2.2.1 The Visually Impaired Condition

Spungin 2002, defines Visual impairment as a challenge encounter in relation to one's ability to see. In this regard it is grouped into either blindness or low vision. Considered to be blind are those who can see objects at 20 feet and below while sighted people can see same objects 200 feet while those considered to have low vision can see up to 20 feet of objects when the sighted ones can see same objects at 70 feet. People use visual information to observe and interpret the information in their environment.

Abang (2005) defines visually impaired individuals as those who have problems with their vision that can be provided remedies either by surgery or providing optical correction. This includes both the blind and those with low vision.

Anomonye (1982) has his definition for visual impairment as the act of having visual performance that is reduced. The said reduction was in comparison to that of the normal vision.

Sacks and silberman (1998), argues that teachers needs to understand the impacts that visual impairment has on learning. Bishop 1996, Maguvhe 2008, Webster and Roe 1998 agrees that when learner's vision is impaired then a number of skills are affected. These includes language skill, problem solving, reasoning and abstract thinking. Such have adverse effect on a learner's academic performance. A learner who has learning difficulties that hinders them from lessons is said to be having special needs and hence the need for a special educational program.(Hearty 1993)therefore teachers should consider as much as possible and address the learning difficulties and differences as well as the styles of learning among these learners(Mmbaga 2002).

2.2.1.1 Visually Impaired Need in the Learning Situation

IDEA (2004) defines visual impairment as an impairment of one's vision in a way that even with correction it affects ones academic performance. Paul Lumbardi (2017) asserts that one's ability to see gives them tremendous ability to access and learn about the world they are in. They are able to conceptualize on things and explain the outlook of different things, their size, the physical environment as well as the hazards they may be approaching.

According to Alberta (1996) Students with visual impairment at times exhibit fewer natural learning experiences. This is associated to the fact that they are not able to see objects as well as interactions. Main areas of learning that are adversely affected includes developing concept, skills on interpersonal communication, life skills, orientation and mobility as well as the academic development. Lumbardi (2017) emphasizes that much learning typically depends on and occurs visually. He puts it out that when visual impairment occurs in early life then development of some skills is delayed.

2.2.2 The Concept of Inclusive Education

Inclusive education, according to UNESCO (2008) is a process of addressing and responding to the diversified needs of all the learners. The increase of participation of learners, culture and communities and to reduce exclusion from education. The aim is to ensure that the education system facilitates an environment where teachers and learners can accept and cope up with the problems and the goodness of that diversity. In this inclusive educational method, an environment is fostered where needs of the individual learners are catered for and all the learners have the opportunity to succeed.

An Inclusive Education program prepares teachers in a way that they are able to meet the various needs of all students in any given classroom, including those from diverse racial, cultural, linguistic, socioeconomic backgrounds as well as students with disabilities.

2.2.2.1 The Philosophy of Inclusive Education

According to Alberta 2010 inclusion is the pillar of today's education system. He asserts that it provides accommodation to all the learners. This inclusion provides an assurance of success, equal participation and that is of quality to all learners. This is usually regardless of their diversified abilities. It means that every individual has the duty and responsibility of perceiving and handling themselves as well as others with much dignity with a view of enhancing their potentials (Burden 2000).

The objective of inclusive education therefore is to ensure that all the students are provided with an environment that is most appropriate for learning as well as providing them with opportunities that are best for them to attain their potentials (Alberta 2010)

Inclusion starts by first acknowledging that every child as well as their family have the right to get an access to education of high quality. This right cannot be curtailed by having any special needs. The intention of inclusion therefore is to take out anything that bars full acceptance, participation as well as learning for every child. It acknowledges that most of the problems that are associated to special needs are embedded to social and cultural attitudes as well as practices.

2.2.3 Historical Development of Inclusive Education

The 1945 universal declaration of human rights required every citizen to get education that is appropriate irrespective of gender, race, color and disability status (UDHR,). In most countries children failed to get education due to their background. According to the Jomtien (1995) Special needs conference appreciated that inclusive education was the only cure to the problem so as to achieve education for all. At first there was institutionalization of persons with disabilities with a view of protecting them from the killings that were going on and brutality against them in Europe. They were put in asylums a place where they could be given food and clothes only without education (Bender, 1970).

By 15th century, learners who were having sensory impairments were being given a chance for special education and by 1950s, they were being grouped according to disability especially in the Scandinavian countries (Welfaceberge, 1972). However, these institutions were considered to be artificial and counterproductive and hence the need for integration of these learners to the normal community setting (JohnKimson, 1997).

According to UNESCO (1995) the 1980s, were characterized by many special schools and units which were established all over Africa. These institutions were for all areas of disability despite the countries having purported to have abolished such. At the same time, there was a professional advocacy group in U.S.A that claimed that integration policy did not go far and hence launching a movement known as regular education initiative (REI) movement. This movement championed for bringing together special schools and regular schools (Skritic, 1991).

According to Jenkinson (1997) another movement was started by groups of advocacy which includes Association for persons with severe disability (ASD) among others and that promoted the rights of such people. Just as REI was doing ASD advocated for bringing together of regular schools and special schools. Further, they argued that the schools needed to be re-structured in order to accommodate all the learners (Ainscow, 1991, 1994; Jankison, 1997).

According to UNESCO (1986) there was a survey carried out to establish how teacher were being trained in eleven countries from across all the continents revealed that the teachers' willingness to provide educational services for the students who are having special needs was there. However, they had a feeling that they had no knowledge and skills that were required for the same.

Consequently, a project to develop materials and teaching strategies was started under the leadership of Prof Mel Ainscow. Workshops were held in all the continents and culturally acceptable materials were prepared (UNESCO, 1993).

Following the success of the materials made by the workshop, a UNESCO conference at Salamanca in Spain was held in 1994 and among other deliberations the conference agreed to eliminate all the practices that were excluding the learners with special needs from their normal counterparts (UNESCO, 1994).

2.2.3.1 Historical Development of Inclusive Education in Kenya

It is notably that during imperialism in Kenya, Education was only preserved for the Europeans in Kenya (Esihwani, 1993). The church was the first group of people to recognize people with special need (Odete, 2003). It is up to 1956 when the Kenya Society for the Blind (KSB) was formed so as to champion the welfare of the visually impaired persons. Just as it was with other organizations, for persons with disabilities, KSB worked with church organizations with a view of supporting education and provision of other learning materials for the visually impaired learners (Ndurumo, 1993).

During the period after Second World War a Salvation army Major acquired the first Nursing facility for the war soldiers at Thika and converted it to a school for the blind. This is the famous Thika School for the Blind. It served as one of the initial institutions that offered basic education for the visually impaired but in an exclusive manner (Mwayonga, 2003)

In preparation to independence, the Ominde commission was formed which adopted the Ngala Mwendwa recommendations among which had proposed inclusion of special needs learners. However, these recommendations were neglected since the period between 1961 and 1980 had mushrooming of special schools in Kenya. No wonder Africa was criticized of purporting to support inclusive education while it was not the case on the ground (Orinda, 1990; Randiki, 2002; Mwangiri, 1989).

In 1976 the Gachathi commission whose main objective was restructuring education proposed integration of learners who had special needs into mainstream schools among other recommendations (GOK 1976). Both the Kamunge commission (1988) and Koech (1999) reports on education recommended the inclusive education approach among the learners with special

needs. Further, the Kamunge commission placed on Kenya institute of special education (KISE) a task of carrying out a research on and designing various equipment and materials that could support learning for learners with special needs (GOK 1988; 1999).

A Kenya integrated education program (KIEP) was established in1990s, after a number of agreements were signed between the ministry of education and the Kenya society of the Blind. The program aimed at integrating the children with visual impairment with their peers who are sighted. Therefore the KIEP complemented the promotion of inclusive education (Salim, 2003).

2.2.4 Why Inclusive Education
The basis of inclusion is the principle of human rights to education for all. This is addressed in the Salamanca statement which was the first international statement to address the educational human right for all the people regardless of race, ethnicity or disability conditions. According to Eklindh and van den Brule Balescut (2006) the main origin of inclusive education is in UDHR of 1945 and 1990. They further confirm that the Salamanca statement of 1994 addresses inclusive education as their main agenda. The main idea behind inclusive education is to provide education to every learner regardless of any differences and the difficulties they face.

Being inclusive in provision of education services means addressing all the challenges faced by all the learners in the education sector (ibid). According to the studies conducted inclusion is very essential because when you compare academic performance of learners with special needs and those without those with special needs it shows an improvement to those learners with special needs when applied. In addition all the learners have a need to build friendship, rapport, respect and understanding of each other in order to be ready to become responsible members of the society. Inclusive form of education gives all the learners this golden opportunity (Salisbury, 2008).

2.3 Challenges of Special Needs Learners

2.3.1 Policy Issues
The Kenyan government has formulated several policies and legal documents in regard to guiding implementation of education to learners with special needs. These includes the (2011) children's act, persons with disability act, the national special needs education policy framework (2009), and the disability mainstreaming policy (2012). All these policies have one thing in common that they advocate for provision of special needs education in an inclusive manner.

However Peter Orachi Odeyo and Michael Lumumba Odeny points out that inclusive education policy lacks clarity. They argue that ambiguity about the goal as well as means of achieving the inclusivity has led to poor implementation of the approach.

(MOE 2009) points out that a number of challenges have continuously affected inclusion of learners with special needs. These included infrastructures that are not appropriate as well as being in adequate, teacher's capacity to manage the learners with special needs in inclusive classes. The learning materials were seen not to be adequate and very expensive to acquire. Further (MOE 2009) notes that negative attitude by the community and inadequate supervision of how inclusivity was being implemented posed a challenge.

2.3.2 The Curriculum

Curriculum is defined as a set of plans and that are prepared and adapted depending on the existing learning situations as well as demands that may arise in future. According to Mulyasa (2006) the demand of teacher training and equipping schools affects learning of students with special needs.

Further he asserts that there is need for education authorities to arrange their curriculum, improve it, develop and evaluate while considering the social, cultural, financial as well as the local potentials. He also urges that societal needs, results and other aspects affects the schools and the entire learning process. (Tedesse et. al 2007) indicates curriculum for learners with special needs to be facing following problems; supervision of curriculum implementation not being adequate, mismatch of the curriculum with the school calendar and allocated time, finances and support with the necessary learning materials low opinion among the teachers who are expected to implement the curriculum.

According to USDC (2003) the current curriculum as well as the examination were not flexible to cater for the needs of the learners with special needs. Further they have it that during development of curriculum as well as preparation of exams there is no much attention to the needs of the students who were having special needs.

2.3.3 Pedagogy

According to center and Ward (2007) most teachers of learners with special needs lacks confidence with the teaching methods that they use. Berryman (2009) asserts that very few teachers believes that they have a duty of modifying their curriculum delivery approaches in order to deliver to the

students with special needs. This the situation that (khrais 2005) refers to non-commitment among teachers. Carr et.al (2001) have it that very few teachers have the ability to manage the challenging behavior and learning needs of the students with special needs.

According to (Lavoie 2009) many teachers were of the opinion that making accommodations for the leaners with special needs was unfair to the sighted peers since it was consuming much time. Actually he asserts that these teachers were torn in between the tension of establishing whether they were going to accommodate the special needs students and disadvantage the sighted peers or they were to ignore them.

2.3.4 Learning Environment

The learning environment is key to the learning process. In this case schools provides the learning environment. Currently education for students with special needs has been targeted. However much of the infrastructures does not conform to the expected standards for education with special needs.(Kristensen 1997) on the same note clark and shore (1998) argues that it did not make sense to have students with special needs included in large classes of fifty and more students. However they established that this was the case.

According to (Okech, Mutisya and Ngware 2009) assessments for children who were having special needs were not being standardized yet their capabilities could not match those of their peers in the mainstream classes. This makes assessment to be unfair to the learners with special needs and yet flexibility was necessary for inclusivity to work well for students with special needs and other special interest groups.

Mutisya et.al (2009) observed that many of the Kenyan schools did not have supportive infrastructure. Such facilities should include ramps, rails yet the stare cases were making mobility for learners with special needs to be difficult.

Gregory et.al (2008) urges that many students with special needs find themselves not accepted by their peers who have no special needs. Such makes school life to look punishing for them since without a friend much of the activities people may become useless. Learning environment for learners with special needs may therefore need to be modified so as to accommodate such students. Otherwise it may become a hindrance for learning among such students.

2.3.5 Special Needs Learner

Special needs learners require education just as their peers do. However these learners have a number of challenges that may hinder them from achieving quality education while their peers are getting the same. These hindrances includes economic challenges. This can be as a result of poverty on the side of the household. Whether there is poverty or not (Skjorten 1995) and (Kimbugwe 2002) agrees that high cost of instructional materials among students with special needs may curtail their ability to access education in inclusive schools.

Negative attitude among the teachers of these learners and peer pressure challenges the students with special needs in inclusive classes (Gregory et.al 2008). Further negative parenting skills, attitude and practices among the parents of such students continue to pose a challenge to them (Katz 1960). According to (Perkin and Greenwald 1989) stigmatization and not being accepted by the immediate society casts students with special needs out of achieving educational opportunities.

Religion may also be a challenge to the learners with special needs. (Keynes 1999) argues that in Christianity Old Testament have it that disability was as a result on sin and uncleanliness.

2.4 Challenges of Visual Impaired Learner

2.4.1 Policy Issues

Just as it is with other areas of special needs education for learners with visual impairment is faced with serious challenges. This is not in Kenya alone but even in different parts of the world. For instance a study was conducted by Gronlund, Lim and Larson (2010) in Bangladesh and Tanzania. It was aimed at understanding how technology that is assistive could be used in a manner that is effective in education that is inclusive. The research revealed that Tanzania did not have a specific policy that caters for inclusive education. It also revealed a mere mention of the inclusive education in the documents of policy such as those on disability as well as those for education and training without clearly elaborating the procedures of inclusivity in education in order to cater for the needs of the visually impaired learners in teaching as well as Monitoring and evaluation.

2.4.2 The Curriculum

NBACL (2007), in their research to investigate on the systematic barriers in implementing inclusivity in learning. They established that there was non-collaboration among the teachers that taught in inclusive classrooms. Further they found out that this lack of collaboration was attributed to rigidity in the curriculum that could not allow the teachers to collaborate.

Mitchel (2008) students are not assessed in the basis of their ability as well as their educational needs that are specific. This is so due to curriculum and assessment rigidity. He further asserts that normative kind of assessment is found to be dominant in classes of learners with visual impairment. This has been a major obstacle facing education for students with visual impairment in most developing countries.

2.4.3 Pedagogy

Content delivery among teachers of the learners with visual impairment has been undergoing serious checks these included challenge on learning materials. (Operetti and Balolcazal 2008) observes that much of the learning materials were too basic and did not accommodate much of the current technology. (Bray and Green 2004) points out that, simplification and improvement of learning materials were important adaptation techniques for the teaching materials of the learners with visual impairment.

Shortage of support staff posed another challenge in implementing inclusivity. (Bray and green 2004) points out that support staff and other educational stakeholders are necessary in assisting the regular teacher in preparing and presentation of lessons to learners with special needs in inclusive classes. Lesson preparations are necessary for effective teaching by a teacher. For instance if learners with low vision required large print then it needed to be prepared in advance.

Class size and sitting arrangement. Many classes in inclusive schools are large and therefore the learning process becomes rather challenging to the students even though most of the students with visual impairment had strategic sitting positions in class (Niwagamba 2014) asserts that class sizes were too large. He further puts it that one student with special needs in an inclusive class has learning challenges that equates to those of four students who are sighted.

According to (Bernard et.at 2001) students with visual impairment are exposed to different font sizes in the learning materials and further the color illustrations that are challenging among these students (Macari 2001)

Participate in matters affecting the learners while in school. The study further indicated that the teachers had insufficient knowledge on inclusion and the techniques of teaching the physically impaired learners in an inclusive classroom. Special needs education policy (2009) points out that Kenya is very slow in coming up with new knowledge as well as braising and exploring the innovations in the world of technology. Special needs education is not an exception in this.

2.4.4 Learning Environment

Studies have shown that the environment of learning; rigid curriculum and assessment procedures that are inappropriate contribute to ineffective learning to students who are visually impaired (Fraser and Muguvhe, 2008).There has to be a significant difference between inclusive learning environment and the ordinary learning environment. This is due to the fact that in classes that are inclusive there are students who have varied needs of learning as well as capabilities (Simon et al, 2010). In order to achieve quality learning to the visually impaired learners a number of features and prerequisites has to be met. Which include; provision of some services that are special from instructors are specialized, resources and equipment's of teaching and learning, as well as assisting devices such as the braille and glasses for magnifying as well as using methods of teaching that are flexible (Webster and Roe, 1998; Simon Et al 2010). Therefore then environment that is inclusive supports learning abilities of every learner irrespective of the differences and diversities of learning that are possessed by the learners in a particular class (Simon et al 2010).

Therefore all the parties involved in the education process e.g. teachers need to re-structure the education systems and methodologies in order to accommodate these learners in an inclusive setting (Fraser and Maguvhe, 2008).

2.4.5 The Special Needs Learner

Stigmatization is one challenge that students with visual impairment undergo in an inclusive class. (Torres and Corn 1976) have it that some students with visual impairment avoid using optical devices because of the stigma which is in association with the devices. Further they urge that some students with visual impairment are undecided on whether to use the device or not.

According to (Sacks and Silberman, 1998) students use visual information to observe and interpret the environmental conditions. It also helps in conceptual development of the learners. When an individual visual impairment or this part of the body is destructed it leads to reduced amount of sensory data to the student which may lead to either delay or deficit in acquiring the required skills which are learned through watching and imitating the teacher and peers (Bishop 1996, Maguvhe 2008, Webster and Roe 1998).

According to Mmbaga (2002) negative attitude among the teachers contributes immensely in inhibiting success of the inclusive education as well as the learner's self-image and confidence and this is depended on the acceptance and participation in all the matters in the community.

2.5 Theories of the Study

Different people have come up with different ways of approaching life challenges. Education for students having visual impairment is one of these disciplines faced by these challenges. Therefore this study was guided by theories in the following two levels so as to handle the problem in question.

2.5.1 Learning Theories
Behaviorism Theory

Pavlov, James Watson, B. F. Skinner and Thorndike are the main proponent of this theory (Mary 2006). She observes that that these theories emphases on the environment as a key factor that influences learning. Classical conditioning requires it that a neutral stimuli is paired up with a stimuli that is naturally occurring while the operant conditioning has it that learning occurs through reinforcements and punishment. In this case behavior and consequences of the behavior are key. When there is desirable results on any action then behavior is more likely to recur. On the event that results are viewed not to be desirable then the behavior is less likely to recur (Mar J. 2016).

It is from that perspective that teacher is perceived to be a key component in influencing learning. If the teacher's actions produces a desirable results then learning is likely to occur through repetitive actions of the learners. The theory guides in establishing whether there is desirable teaching approaches for learning to occur among the learners with visual impairment.

2.5.2 Special Needs Theories of Learning

2.5.2.1 Social Model of Disability

The model requires a view of persons with special needs by the society to be from the perspectives of human rights and equality. This should be in contrast to focusing on their special needs that challenges them in undertaking so me activities (Oliver and Barnes 1998). Some people make PWDs to have a feeling that their mistakes made them different. However the social model emphasizes that special needs don't make them lesser people. The PWDs movement holds to a view that problems of the people with special needs can be solved through restructuring the society and not focusing on their impairment.

Schools should therefore be re-adjusted to accommodate the special needs of those learners with visual impairment. Social model acknowledges that students with special needs may face challenges in the education system. These challenges may be so to due curriculum that is rigid, extensive and demanding. Other causes may include inadequacy of learning resources and materials, negative attitude and school environment that is inaccessible among others. The model encourages that such challenges should not be understood from the perspective of the learner's disability. The view that students were experiencing challenges due to their impairment is discouraged.

Under these circumstances the option of establishing separate schools for learners with special needs is viewed as separating them from their peers and families. Further the approach is not cost effective. Therefore schools should not be seen as that they are creating learning barriers to learners with special needs by not creating an environment that is enabling. The noble idea here is to identify the barer and in a systematic manner eliminate the barer. In this model strengths of the learner are priority as opposed to their challenges. The model advocates for inclusion of students regardless of the servility of their impairment (Diana 2008). This study therefore used social model of disability as an approach of advocating for inclusivity of education for the visually impaired.

2.5.2.2 Normalization Theory

Theory of normalization has wolf wolfensberger (1980) as the main proponent. This theory involves acceptance of the people who are having special needs into the society. Further it requires that they be offered the same conditions that are being offered to the other citizens. It brings in the

concept of awareness of the normal rhythm of life. Such are not limited to the issues of attending school, housing, exercise, recreation, housing need and freedom of choice among others. He brings in the issue of dignity of risk instead of emphasizing on protection. Wilmshurst 2005 has it that the challenge encountered in developing support in the society has been ignorance and resistance on the side of any given typically developed member of society and who has cultural influences that people with special needs are in a way funereally different and that it is in every person's best interest that they be removed from the society. However they point it out that that part of the normalization process has been to bring back these people to the society and support them so that they can attain the normal life as much as they can. Wolf wolfensberger (1980) puts it urges it that people with special needs should not be seen as being either sick, abnormal, lesser people, or even unformed but instead should be viewed as people who requires significant support in some areas of life (Ndurumo 1993). This argument brings in an understanding that every single individual requires to be supported at a certain point in life. However most people will get support when needed in an informal manner or through an approach that is socially accepted. This theory is therefore viewed to be important in guiding the study since for century's students who are having visual impairment have been segregated from their peers who are sighted when it comes to education matters.

2.6 Conceptual Framework of the Study

The conceptual model below was designed after examining the available literature in relation to teaching students who are visually impaired in classes that are inclusive. Development of the conceptual model took into account Knowledge of the teachers teaching the visually impaired learners. Teaching methods applied by the teachers teaching the visually impaired learners, Adaptation techniques by educationists instructing students with visual impairment and Collaboration with stakeholders

Teaching is the art of intentional planning for and disseminating appropriate knowledge, skills and competencies to the intended learner in a manner that triggers learning. Therefore the teacher needs to have the prerequisite knowledge and skills on the teaching pedagogies and absence of these may not achieve much in classwork. Further the teacher needs to use appropriate teaching methods that are suitable to the learners with visual impairment. These methods also need to be adapted in a way that may suite an individual learner with visual impairment since the levels of impairment

differs from one learner to the other. Some of the facilities and competencies required may not be available among the teachers of visually impaired students and even in the entire school environment and hence the need for collaboration with other educational stakeholders who help in acquisition of the same. If any of these factors are not available then poor academic performance sets in. The researcher had to establish whether the above factors were put in place before and during learning so as to foster a good and conducive learning environment. Further the intensity of the same was measured to find out the level of which the factors were put in place for effective learning.

Independent Variable   **Dependent variable**

| Appropriate knowledge of teachers teaching visually impaired learners |
| Best teaching Methods applied by teachers teaching the visually |
| Adaptation techniques in teaching visually impaired learners |
| Collaboration with key stake holders |

Good academic performance of the learners with visual impairment
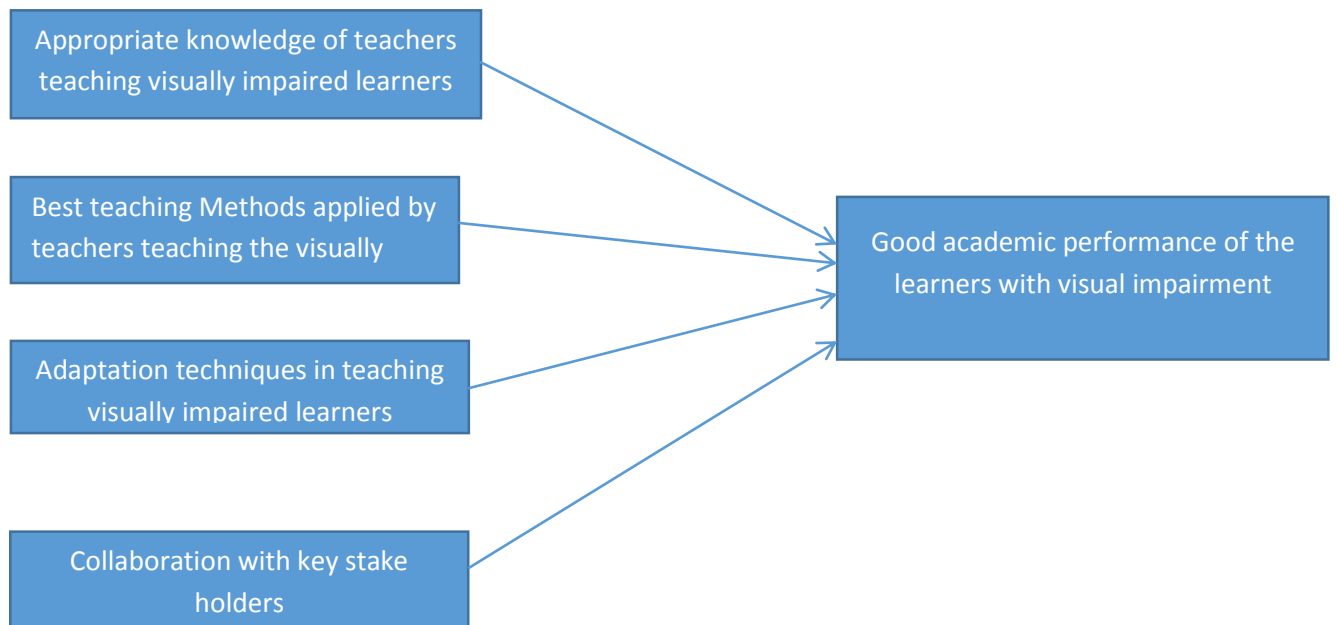
Figure 2.6.1 Conceptual Framework

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Research Design

The researcher applied qualitative research and quantitative approach to explore on the general methodologies applied by the teachers in an inclusive classroom to teach the visually impaired learners and the challenges they face. This approach was used in order to enlighten the researcher on the study area based on the views of those involved (Arry, Jacobs and Soronsen, 2010). A case study which is a qualitative approach was used to shed light to the researcher on the different perspectives of the teachers and also the challenges faced by those teachers. Teachers were observed in the classroom in order to help the researcher understand how they teach the visually impaired learner and the obstacles encountered by these teachers. The data obtained in this approach was presented through descriptive analysis.

However in understanding the social and demographic characteristics of the respondents the researcher used a quantitative approach. In this the researcher grouped the respondents in various categories to understand their age, experience and level of education. In this level the findings were presented in tables and graphs.

3.2 Population and Sample of Study

According to Mugenda and Mugenda (2003) population sample provides the total sum of respondents to whom the results of the study can be generated. In Kenya there are very few secondary schools that have fully embraced inclusive education for students who were having visual impairment. Further owing to the fact that the study was a case study and a deep and detailed information was necessary a total of 38 respondents were targeted for interview and while 26 were observed.

Selection of respondent was among the teachers who teach either form two or three. This choice was informed by the fact that the learners in such classes are more stable since they have been there for more than a year and at the same time they are not a candidate class. Teachers were selected from across all the subjects taught in the school.

3.3 Sampling Design

This involves selecting a small intended group from the larger population to be included in the research. The individuals selected are supposed to be able to fully represent the larger group from which they were selected (Ogula, 2005).

In order to get the respondents from among the regular teachers as well as the suitable classrooms for study purposeful sampling will be used. This kind of sampling is usually done after considering some predetermined characteristics or after undergoing a certain criteria (Johnson and Christensen 2012). This kind of sampling is usually common when doing qualitative studies such as case studies since it guides the researcher in engaging respondents who have much information that is relevant to the study (Gall et.al 2007, Gay, Miles and Airasian 2009). The number of respondents, Manion and Marrison (2007) argues that they are determined by the reason of carrying out the research and also the population of the study. The amount of resources and the time available for the researcher to collect data also determine the sample size (Patton, 2002).This study collects quantitative data which collects detailed information about the teaching of learners who are visually impaired and the challenges that the teachers are faced with.

3.4 Data Collection Tools

According to Johnson and Christensen (2012) it is acceptable for a researcher using case study to employ more than one method of data collection. Therefore then both interview guide and observation schedule were used for data collection. Discussed here is how each of the two methods were used

Table 3.4.1 Data Collection Tools

Objective	Theme	Res/Design	Population /Sample	Information required	Data Collection instrument	Data analysis and representation
1.	Knowledge that teachers are in possession of in relation to inclusive education	Case study	The teachers.	The extent of knowledge possessed by teachers of the VI learners on inclusive education	Interview guide.	Use of graph and pie chart
2.	techniques employed by the regular teacher in assessing the needs of the visually impaired learners	Case study	The regular teachers	Methodologies employed by educationists while handling the VI learners Obstacles encountered by the educationists while handling the VI leaners	Observation schedules Interview guide.	Thematic content analysis
3.	Adaptation techniques employed by education specialists while instructing the students with visual impairment.	Case study	The regular teachers, The VI learners	How the teachers adapt to the challenges caused by VI in an inclusive class.	Observation schedules Interview guide.	Thematic content analysis
4	Extent to which the regular teachers collaborate with other stake holders in teaching students who are having visual impairment.	Case study	The regular teachers.	The extent to which regular teachers collaborate with the specialists, parents, government and other stake holder.	Observation schedules Interview guide.	Thematic content analysis

3.4.1 Interview Guide

Use of interview guide is seen to be appropriate for the researcher to get information that is well detailed from the teachers on the pedagogical skills they employ during teaching and learning process in an inclusive classes that has learners with visual impairment as well as the challenges they undergo during this process. Interview method has been defined as a data collection approach and which gives chance for a one on one interaction between the interviewer and the interviewee.

Therefore then oral skills are employed for the interviewer to get information from the interviewee (Gall and Borg 2007). This method provides a chance to the interviewee to tell their opinions about the subject in question as well as what they believe their attitude and experiences. Further it is possible for one to make a follow up of the responses given since the interviewee is available for the same. Such is important for clarification of statements that are seen to be ambiguous or those of concern (Arry et.al 2010, Gall et. al 2007, Airasian et.al 2009).

In addition to having detailed information about teaching the visually impaired learners in an inclusive classroom, the difficulties encountered by the teachers shall be explored. Interview that is semi structured was used. This kind of interview can be conceptualized as the one that has questions that are closed ended as well as those that are open ended aimed at acquiring detailed information from the respondents (Gall et. al 2007). The importance of this is to have short responses e.g. yes or no responses as well as deep explanations.

Semi structured interview gives the teachers an opportunity to express themselves and give enough information about how it is to teach the visually impaired learners in an inclusive classroom setting. The interview questions in the guide will be derived from the research questions provided in the first chapter. One shortcoming of this data collection is that it consumes a lot of time when collecting data from the respondents since you have to observe both the verbal and the nonverbal cues and listen actively in order to get a detailed information from the respondent The teachers kept on diverting from the questions every time so the researcher had a responsibility of returning them to the track (Ary, 2010).

Table 3.4.1 1nterview Questions

Objective	Theme	Question
1.	Knowledge of teachers on inclusive education	What is your understanding on inclusivity in education? What difficulties do you encounter while teaching in class room that are inclusive?
2.	Techniques employed by the regular teacher in assessing the needs of the visually impaired learners	What approaches do you employ in assessing the learning needs of learners who have visual impairments in classrooms that are inclusive? What difficulties are faced when assessing the special educational needs of the learners who have visual impairment in classrooms that are inclusive? Are you aware of an Individualized Education Plan (IEP)? (b) (I) If "Yes", what is your understanding about it? (ii) How do you implement IEP in order to satisfy the needs of students with visual impairment in classes that are inclusive?
3.	Adaptation techniques employed by teachers in teaching the visually impaired learners	What pedagogies do you employ in instructing learners in classes that are inclusive? What adaptations do you employ in every pedagogy you employ with objective of satisfying educational needs and requirements of students having visual impairment in classroom settings that are inclusive? What difficulties do you encounter in using and adapting the pedagogies for students with visual impairment in classes that are inclusive?
4.	Extent to which the regular teachers collaborate with other stake holders in teaching the visually	Have you ever come across the term co-teaching? If "Yes" a) what is your understanding about it? (b) How do you co-teach with aim of assisting your learners who are visually impaired?

3.4.2 Observation Schedule

In order to enable the researcher observe the real teaching process to the students with visual impairment in classes that are inclusive, observation becomes very relevant in this study. Case study design recommends a number of methods that helps the researcher acquire a detailed explanation of the phenomenon under study. Observation mostly is a method that takes place in the place where the stimuli is being experienced and in our case the stimuli is in an inclusive class where knowledge acquisition has to take place among students with visual impairment. It gives rich information on the original setting in on top of the questioning on the approaches of content delivery to students with visual impairment in classes that are inclusive.

The researcher assumed the position of an observer who is non-participant. This kind of an observer plays a role in observation of the stimuli on a natural setting without themselves being involved in the act that takes place in the field of study. The researcher in such setting does not require a prolonged period of time being involved in the activities taking place (Bryman, 2004).This type of data collection is preferred due to limited time for the data collection to go on and general research activities. The researcher drafted an observation schedule which will help him in observation to avoid interruption and also help him in maintaining the focus in the behavior intended to observe. The researcher recorded the behavior observed from the teachers by taking notes on the behavior observed as it occurred (Airasin et.al 2009) Says that it is wise for the researcher to take notes as the behavior occurs to avoid forgetting. Ari, Jacobs and Sorensen (2010) pointed out that the researcher might attach other meaning to the behavior observed other than its real meaning. In avoiding this, they proposed that the researcher should arrange a session with the teachers and let them clarify the various observations which the researcher foun uneasy to comprehend.

Observation also ensures that the researcher collects quality information (Nesbit and Watt, 1980). Observation gives the observer an opportunity to verify the truth in what the people being observed say they do. Observation method cannot provide reasons for a certain behavior. This justifies the combination of this method with another one in order to supplement such weaknesses that are noted with the method (Bryman 2004).

Table 3.4.2 Observation Schedule

Objective	Theme	Indicator to observe.
1.	Knowledge of teachers on inclusive education	Observe the relationship between the teacher and the VI learners e.g. Calling the learners by names, Sound projection.
2.	Techniques employed by the regular teacher in assessing the needs of the visually impaired learners	Observe whether the teacher uses appropriate techniques to the VI learners such as sound projection, calling learners by names,
3.	Adaptation techniques employed by teachers in teaching the visually impaired learners	Observe whether the teaching techniques are adapted for learners with VI such as adapted text, the learning devices and extra time allowance
4.	Extent to which the regular teachers Collaborate with other stake holders in teaching the visually impaired learners.	Observe whether there is collaboration with stakeholders such as co-teaching with specialists and availability of collaboration records

3.5 Data Analysis Procedure

The data captured in the field had to be synthesized in order to make meaning to the users of the research findings. In qualitative study data analysis has to start immediately after the first data collection in order to establish presence of missing data collected. This assists the researcher in reviewing as well as restructuring his/her tools for use in collecting data which helps the researcher to collect information that answers the research questions of the study. Miles and Huberman (1994)) calls this process of reviewing dater in order to alter it interim analysis.

In the study, the researcher employed this interim analysis after every interview in order to establish whether there was a missing data/information.

When the researcher completed data collection, the raw data was transcribed. Transcription in this context means changing the interview notes, observational notes and audio recording in text (Jonson and Cristensen, 2012).Thematic analysis was then employed in organizing the data that had been transcribed. This was done in terms of the themes as created in the major questions being studied and also there objectives of the research. Further a few data was analysed using graphs and

pie charts. Much of this was the data on social and demographic characteristics of the respondents that had its data collected using closed ended interview items.

3.6 Validity and Reliability

3.6.1 Validity
Any measure described as valid is the one that does what it was intended to do (Codican 1996). It refers to the ability of the research to measure abstract issues in a manner that is adequate. In this case a research question is required to ask exactly what it was supposed to ask. It is expected that once another similar research is carried out using the same tools findings should be more or less the same (Ary, Jacobs and Sorensen 2010). The researcher ensured that the tools employed yielded suitable results by getting data collection tools that had already been tested their effectiveness and used by other researcher. In this case the data tools used belonged to Baraka Michael Mwakyenja of Oslo University. This was after seeking permission from him under the guidance of the university supervisor. The tools were also approved by the university supervisor.

3.6.2 Reliability
According to Codian (1996) reliability can be defined as the degree to which the research outcomes are consistent in relation to reality as well as being repeatable. Researchers, in establishing the reliability have to carry out the research several times in settings that are different in order to make a comparison of the reliability. In this study to ensure reliability the researcher had to use triangulation. Triangulation in qualitative study is where the research data collected is matched with what happens in real situation (Bogdan and Biklen 1992). The researcher had therefore to compare the data obtained in the field and the general occurrences observed at the classroom as the teachers teach the learner with visual impairments.

3.7 Ethical Considerations
In any research to be professional the researcher has to adhere to the basic tenets of research from the beginning to the end (Bryman, 2004). When the researcher adheres to the ethics it brings confidence to both the participants and the researcher himself (Israel and Hay, 2006). In this the researcher got permission from NACOST this was after he had been forwarded for the same by the hosting institution and in this case the department of psychology at the University of Nairobi, to allow this study. He also had a pre-visit to the school where he got acknowledgement of the research permit n from the principal of Kitui School where he intended to conduct his study.

According to Tromp (2006) it`s a must for the research respondents to be informed of the same by the researcher .This was captured in the interview guide and observation schedule which the respondents had to get a copy during the pre-visit to the school before the time of data collection. After reading the respondents were at liberty of either consenting to participate or not. Creswell (2009) and Combo (2006) argues in favor of anonymity of the research participants/respondents. The researcher observed this by informing the respondents that their names were to remain unknown through the study and after the study. This was also done by giving the respondents unique numbers which the researcher was using to identify the respondents and they were only known to him alone. The researcher has also ensured and maintained the integrity of not providing the research information to any other party except for the research purposes only.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

The current research endeavored to study the pertinent issues on content delivery among students who are visually impaired in classes that are inclusive and the obstacles met by the teachers while teaching those students. It sought to assess the various gaps that are likely to be bridged as a result of addressing those factors.

Data was analyzed using of Microsoft excel and thematic content analysis. The present chapter provides the analysis as well as the results of the data collected. It sought to provide a detailed analysis of the qualitative and quantitative data collected in regard to the perception of the teachers who teach the students with visual impairment. In particular, the study sought to understand the level knowledge of the teachers in inclusive education, to identify the techniques employed by the regular teacher in assessing the needs of the visually impaired learners, to establish the adaptation techniques employed by teachers in content delivery among the students who are having visual impairment, to establish to what extent do regular teachers work with other relevant education stake holders for delivery of education of high quality classrooms that are inclusive.

The chapter presented the data analysis and the presentations of the results of the collected data using interview and observation. The responses were collected from the teachers who teach the learners with visual impairments. The questions in the interview asked about the demographic data of the respondents, open ended questions intended to generate answers regarding issues that face the students with visual impairments; detailed information was generated from the principal in order to generate information on the policy issues in regard to the approaches delivering content among the learners who are visually impaired.

4.2 Social and Demographic Characteristics of the Respondents.

This part gives a critical analysis of the demographic characteristics of the respondents in the study. It was important for the researcher to understand the characteristics of the research area in order for them to be able to relate those characteristics with the outcomes of the study. This part analyzed the age, gender, Years of experience, length of stay in the current station, subjects they teach, highest academic qualification and whether they had training in special needs education.

4.2.1 Age of the Respondents

In the graph below the researcher interviewed 38 respondents. According to the graph most of the respondents were between ages 20-30 years followed by those that were between ages 31-40 years. The least number of years were 50-60 years. This data translates to the experience earned by the teachers handling the students who have visual impairments. The younger the teacher the less experienced the teacher is in terms of the general teaching of the students.

Figure 4.2.1: Age distribution of the respondents
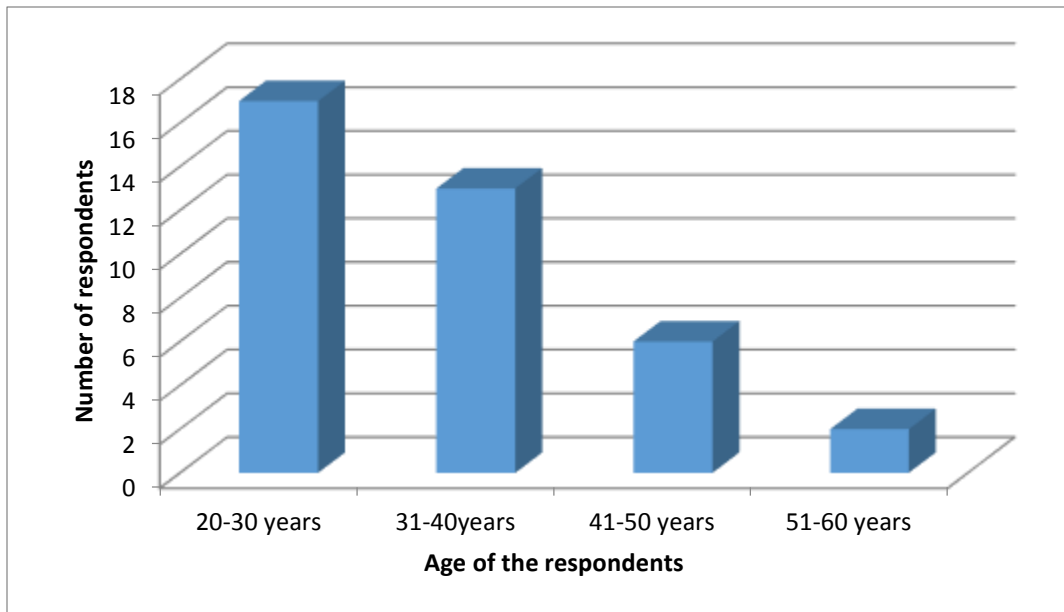
4.2.2 Gender of the respondents

The pie chart below shows the gender distribution among the respondents. It is evident that there were more female respondents than their counterparts who are the males in the school. This is translated in their general attitude in handling the visually impaired learners. The female gender is generally seen to be more motherly and having a general concern of the welfare of the children compared to their male counterparts. This can contribute to the general learning of the learners in terms of the attitude they will pose towards the teachers and hence contributing to the learning of the students.

Figure 4.2.2 Gender of the respondents
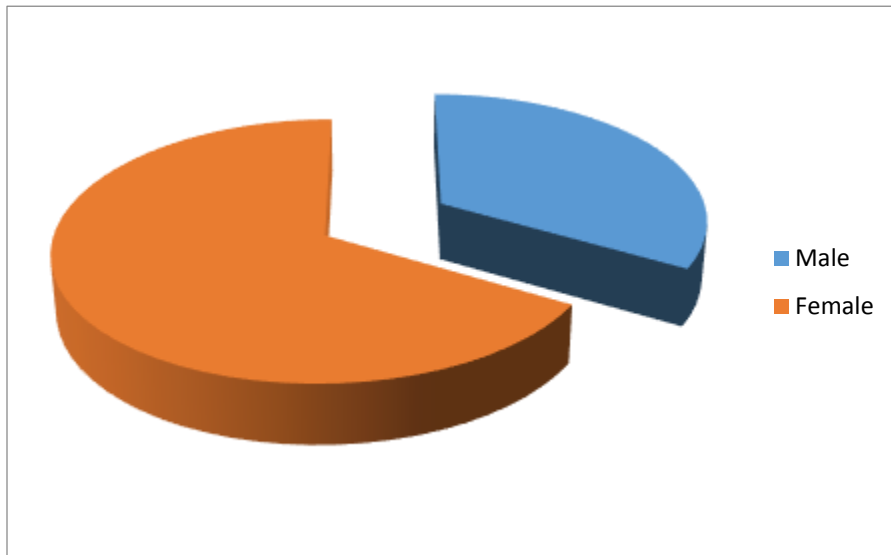
4.2.3 Years of Experience

The graph below shows the years of experience the respondents had in handling general curriculum. It was evident that a high number of respondents had experience of 7 years and below followed by those with between 8 and 14 years, the next was between 15 and 21 years while the least was 22 to 28 years and 29 to 35 years respectively. The lower the experience the less knowledge the teacher had and hence inappropriate to handle the learners.

Figure 4.2.3: Experience of the teachers in their job
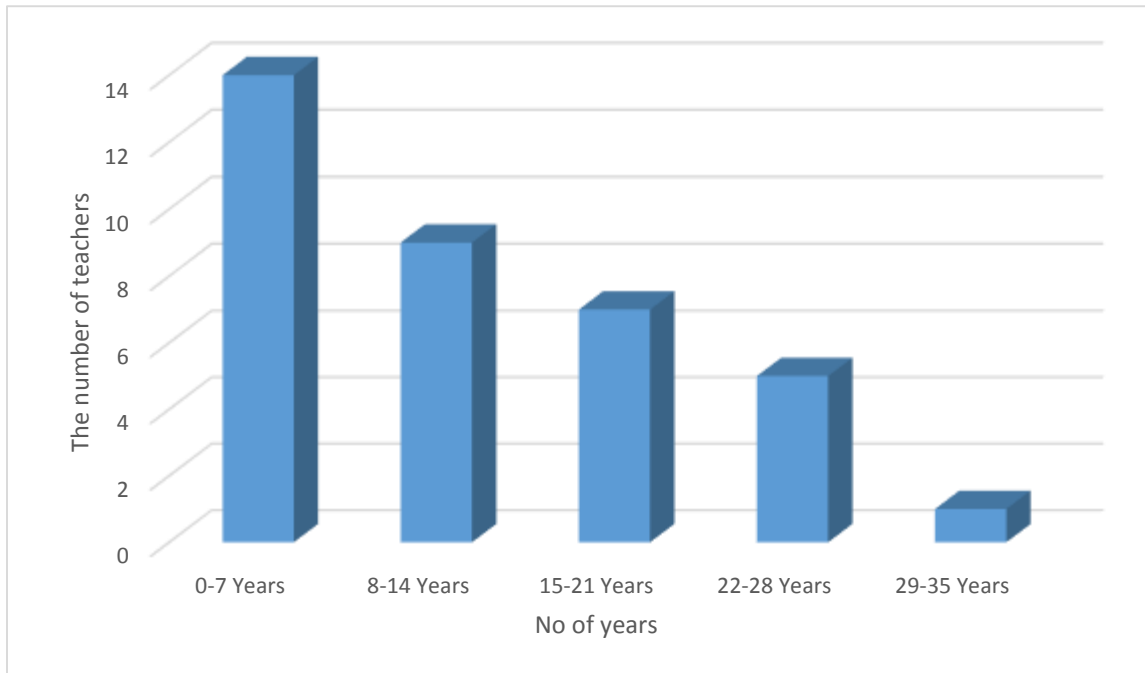
4.2.4 Highest Qualification

Among the 38 respondents interviewed 36 had a bachelor's degree of education while one had a diploma in education, one respondent had a bachelor of science and a post graduate diploma in education. The higher the academic qualification in education the more suitable the respondent was in handling the general curriculum. It is therefore notable that majority of the teachers had adequate knowledge of the curriculum issues.

4.2.5 Training on Special Needs Education

Among the respondents only two had training on special needs education, one had training in Kenya sign language while the other had been trained on handling the mentally impaired students. Training in special needs education is crucial in ensuring that students who are disabled are engaged in a manner that is adequate. It is therefore notable that none of the respondents had specialized training in handling the students who have visual impairment and therefore inappropriate in handling these learners whether in special schools or in inclusive schools. It implies that the teachers despite handling the students with visual impairment they were

ineffectively to handling to learners and hence not able to effectively address all the issues that affect the visually impaired learners and hence ineffective in delivery.

4.3 General Knowledge of Respondents on Special Needs Education

This part examines the knowledge of the educators who handle the students who are having visual impairment. It is necessary for establishing the extent the teachers were knowledgeable on the pedagogical approaches to be employed in teaching the visually impaired learners. It also helped the researcher to understand the challenges faced by the teachers in their delivery while delivering to this category of learners in an inclusive setting.

4.3.1 Knowledge of what Inclusive Education Entails

A question was paused among the respondents on how they understood inclusive education. Over 90% of the respondents viewed inclusive education as an educational approach giving opportunity to all in a manner that is uniform and no special treatment of any student either based on ethnicity, religion or physical challenges but instead incorporates all the learners into their classrooms. This includes those that have special needs among those who are normal. This is a key aspect in ensuring that these learners feel accepted by the immediate society and therefore they will be able to develop positive emotions among themselves. A person with positive emotions is relatively stable and can approach the various live challenges with much ease.

4.3.2 Challenges faced while teaching Learners with Visual Impairment

The respondents were questioned the obstacles met when teaching the learners with visual impairment. The responses are as follows;

 Application of different teaching methods for one class seemed to be hectic and demanding. This was so because the teacher would keep on changing from one approach to another. This was expected to happen within one period of forty minutes. This consumed a lot of time and hence covering of the syllabus was a serious challenge.

 Secondly the learners were taking a lot of time when copping notes as well as doing assignments. This was so because they could not see properly whatever they were copping. These learners could strain to see and write hence take a bit logger to complete the task at their disposal.

Poor spelling and hand writing was also noted. The legibility of learner's work was a challenge. This was so since the learners were ever complaining that they could not see properly the writing on the board as well as the other writings. Consequently the teacher could take a lot of time when interacting with the learners work.

Further the teachers argued that they always required to attend to the learners independently in order for them to be able to grasp the content. This was so because vision is crucial in sending the observed stimuli to the brain for processing. In case of visual challenges this process takes place slowly and hence low learning pace. This was yet another aspect that spend a bit teacher's time. Another issue raised was that the learners never concentrated till the end of the lesson. This implied that they needed their own system that provided for shorter periods. This was a challenge on the side of the teacher since they were required to handle little content.

The learners were reported to have had constant complains of either being intimidated or laughed after by other learners. This was triggered by the mistakes that they could do in class. According to their sighted peers such mistakes were too obvious to be made by learners of their level. This put the teachers at a task of cancelling the learners as well as disciplining the offenders which is also involving as well as time consuming.

These approaches are a challenge to the teachers since they consume a lot of time for them and make them unable to cover syllabus on time and hence affecting the overall performance of the learners both the visually impaired and the sighted. Further the processes makes the teachers exhausted and hence affecting the teachers' overall wellbeing. It is important to address these challenges since they are affecting the whole learning systems right from the teachers to syllabus coverage among others.

4.4 Assessment of the Learners with Visual Impairment and their Learning Needs

This part seeks to identify the various approaches that the teachers of learners with visual impairment in classes that are inclusive employ when assessing the learners with visual impairment. Further the part has examined the various challenges that teachers met when identifying the needs of these learners. Assessment of learners' needs is important to any teacher handling students who are having visual impairment. This enables the teacher to understand the

type and level of need the learner has. With this knowledge the teacher is able to prepare the various teaching methods as well as their appropriate adaptations.

4.4.1 Techniques used in identifying the Learning needs of the Learners with Visual Impairment

On pausing the question on how teachers were assessing the needs of the learners with visual impairment following responses came out.

Observation was used. In this teachers observed whether the learner was straining when reading from the board, books or even when writing. This was a sign that these learners had a problem in vision. When such signs are identified the learner should be referred to the education assessment and resource centers (EARC) for further assessment. This confirms whether the learner had the needs or not.

Assessment of how the learners respond to questions concerning observation was regularly mentioned by the science and technical teachers. For instance chemistry teachers said that these learner were commonly making obvious mistakes when identifying colors changes. Such arguments sentiments were also shared by biology and agriculture teachers.

Use of individual tasks was also mentioned by science teachers especially the physics and agriculture teachers. They said that when these learners were given individual tasks to handle during practical lessons mistakes were also evident. This was also associated with the same problem of being unable to see properly.

Complains related to eye problems was also mentioned to be another thing that a sign of visual impairment. Some of these learners complained that their eyes were aching while others complained that they were unable to see the board properly while in some areas in class. This should be addressed by providing large prints or having them seating in front of the class or at the back depending on complains that had been raised.

Handwriting was said to be another method that was being used in identifying the needs of the learners with visual impairment. It was reported that most of the learners with visual impairment had very poor handwriting and with very many spelling mistakes. Such learners are candidates for further check up by the assessors in the EARKs.

4.4.2 Challenges in assessing the needs of Learners with Visual Impairment

On raising questions on the challenges that are faced when assessing the students who are having visual impairments the respondents raised the following issues;

Inadequacy of the required assessment facilities and materials. Most of these materials and facilities are only found in the EARKs. If these are not available a learner can be identified and placed as a learner with visual impairment while not and vice versa. It is therefore crucial to have these facilities in every school for proper inclusion.

The level of impairment varies from one individual to the other. In this case since the teachers have no training on special needs education they are likely to expect the learner behave exactly the way the one they know behaved or show the exact characteristics they know with aim of placing them as learners with visual impairment. If the level is different from the one they know there is likelihood of erroneously place them as visually impaired while not and vise verse since they will not behave or show the exact traits that they expected to be shown. Such will have adverse effects to their process of learning

Inadequate time was seen to be a challenge. This is because the teacher is expected to be in any class for a period of forty minutes. This period is only adequate for the normal class presentation without necessarily engaging in issues of special needs. Due to this the teacher is likely to ignore the traits that they see in these learners so as to concentrate on class delivery to the majority who are the sighted. This may affect the learner since their issue may not be addressed and if so it may be done very late when damage has already been done which may be irreversible.

Low self-esteem among these learners was seen to be a challenge. When in such a situation they may feel to be weak and hence not able to make any achievement. In case of such the learner is likely to perform below their ability during assessment. If this occurs then they are likely to give the wrong perception of themselves and hence wrong placement and access to some erroneous services that may not help them much.

Lack of proper training to assess the learners' needs was sighted. This was so because the teachers did not have training in special needs and the two who had it was irrelevant to education and assessment of students who are having visual impairment. It was argued that in this situation the

teachers were not in position to offer professional and appropriate evaluation of the educational needs of the learners who are visually impaired.

Identification of genuine learners for further assessment was said to be a challenge. This was due to the fact that many times the lazy and cheeky leaners could pretend to be having visual problems so as to avoid doing the assignments given or even with an intention of being given a chance to move out of school for further assessments. This at times makes the teachers uneasy to trust any learner who may complain of such including the genuine ones. Further it may deny or delay access to assessment services among the learners who are deserving.

4.5 Adaptation Techniques Employed by Teachers in Teaching the Visually Impaired Learners

This part aims at outlining the various teaching methods that teachers employ in classes that are inclusive of students who are having visual impairment. Further the part shows the adaptation techniques that are put in place so as to address the needs of the learners with visual impairment in this setting. Further it will outline the challenges the teachers face when adapting the teaching methods so as to make them suitable to these learners.

4.5.1. Teaching Methods used in Inclusive Classes

During the data collection the following teaching methods were observed as well as being mentioned in the interview process.

Use of question and answer methods. All the twenty six classes observed use of question and answer was common. Questions were paused for those are normal as well as those with visual impairment. However the frequency in which questions was high in mathematics, sciences and languages compared to humanities and technical. Further it was noted that most sciences especially physics and chemistry was asked in a manner that never gave the visually impaired learners to synthesis the question even where observation was required.

Use of group discussion. Although during interview it was highly mentioned to be a teaching method used by the teachers it was only three teachers who were observed using the same approach out of the twenty six classes observed. This was seen in two English classes and one in a history and government class. However in the three cases the discussion was done for a short period of

time that may not give the visually impaired learners chance to contemplate the issues discussed and participate effectively.

Lecture and explanation method was used by all the twenty six classes observed. Further it was highly mentioned by the respondents interviewed. Voice projection during this method was seen to be adequate for the learners with visual impairment among all the teachers teaching humanities and languages. However there were two case one in physics and the other in chemistry that sound was fast and low for a learner with visual impairment.

Experimentation was a common method employed in sciences. It was not just mentioned during interview but also observed in class however the rate at which it was mentioned during interview was very high compared to the rate at which it was observed in class. Further in some experiments especially in chemistry the learners with visual impairment were straining much in order to identify the color changes that occurred during chemical reactions.

Demonstration method was also mentioned as well as being observed during interview and observation methods respectively. This was mainly observed in science subjects especially in chemistry where the teacher demonstrated the various experiments before instructing the learners to carry out some experiments. However just as it was with experimentation learners with visual impairment were straining to observe the color changes that were occurring.

4.5.2 Adaptations done for the various Teaching Methods

During data collection process the following adaptations were either mentioned in the interview or observed in class as the teachers were teaching.

Extra time allocation. Among all the teachers observed the learners with visual impairment were given extra time to perform the various tasks that included doing assignments, performing experiments as well as during reading of set books in languages.

Sound projection was also evident. This was also necessary since the learners with visual impairment majorly depend on voice than writing. With majority of the teachers observed as well as those interviewed audibility was confirmed to be key. Further among those observed there was tonal variation and sound that was appealing to the learners. Such voice is crucial since it helps the

learners to concentrate in classwork hence better understanding of the content that was being delivered by the teacher.

Adaptation of text was also evident in a number of ways. In those observed the writing was large enough and used contrasting colors that were crucial for the learner to see the text being written. Even those using projectors ensured that the font was large enough for learners with visual impairment to see properly. Further those interviewed confirmed that even the diagrams they used in teaching were large enough.

Strategic positioning and movement of the teacher was also mentioned to be crucial in the process of teaching in order to assist the learner to hear properly as well as seeing the practical that were being demonstrated from time to time.

Sitting arrangement was also said to be another adaptation used. This was so in ensuring that they were sited in a strategic place where they could see the board properly as well as hearing from the teacher and other learners with much ease. This was so to help the learner benefit maximum from the learning process.

4.5.3. Challenges Faced During Adaptation of the Teaching Methods

Teachers sighted the following to be the challenges they face when trying to adapt their teaching methods so as to address the special needs of learners with visual impairment in their classes that are inclusive;

Preparations were said to be tedious and involving. This was a challenge to the teachers since they get tired and exhausted during preparations which may affect the teachers' overall performance in school activities as well as their family and private matters. Naturally human beings hate being engaged in activities that are too demanding. Most people like using shortcuts, these teachers may not be an exception to this.

Insufficiency of resources as well as the teaching and learning materials was sighted. For instance since most of the visually impaired in the sample site had low vision electric gadgets such as projectors and laptops were required in order for the teacher to adjust the font appropriately as the need arises. There were only three projectors in such a school that had five streams which translates to twenty classes.

Low rate of syllabus coverage was also sighted. This was so because some of the adaptation techniques employed such as use of projectors and other electronic gadgets as well as extra time allowance was said to be time consuming. This time being spent would have been used in handling other syllabus content. This further impacts negatively on the overall perfor9mance of learners including those who are sighted.

Time wastage for the sighted coundapats was highly mentioned. Some of the sighted learners who felt that their time was being wasted could engage in indiscipline issue such as noise making and playing during class time. Further this was sighted to be the cause bullying and nicknaming during the time that they were free from class activities.

4.6 Collaboration with Relevant Education stake Holders for Provision of Quality Education

This part explores how teachers teaching in classes that are inclusive of learners who are visually impaired collaborate with various relevant stake holders in order to provide quality education to the learners who are visually impaired as well as their sighted coundapats in those classes.

4.6.1 Co-teaching

This part examines the understanding of teachers on the concept of co-teaching. It further looks into how co teaching is implemented in classes that are inclusive so as to improve the quality of learning delivered to the learners with visual impairment as well as the sighted peers.

4.6.1.1 Understanding of the Concept of Co-Teaching

Majority of the teachers agreed that co-teaching involved having two or more teachers teaching one class concurrently. They said that in this kind of teaching two or more educators work together in organizing and planning for learning, instructing as well as assessment of the learners.

4.6.1.2 Implementation of Co-Teaching in Classes that have Learners with Visual Impairment

During class observation no evidence of co-teaching was found. However during interview a number of ways were mentioned in which the teachers were doing co-teaching. These included the following

Bringing in other teachers who were able to address specific issues that could affect learning of the learners with visual impairment. For instance the issue of integrating information technology was mentioned. In this a teacher said she was unable to assemble the projector so as to use the PowerPoint and adjust the font appropriately. She therefore said that she was inviting her colleagues to do it for her.

Interchanging of classes also came out. This involved one teaching the class of their colleague while the one was teaching that of the former. This was said to be necessitated by the purpose of delivering better what their colleague could not do due to issues related to age, gender, religion and even the knowledge itself.

Other teachers reported to be using this approach when they were unable attend their lessons. This was said to be necessitated by too much work they could be having. It was also said to be necessitated by absence where a teacher goes to handle either official matters but outside the school or even attending to personal issues.

On assessing the above mentioned approaches it is notable that rarely was co teaching used in these classes. Further it is notable that when used it was too general and had very little or no help to the learners who were having visual impairment.

4.6.2 Collaboration with Parents of Learners with Visual Impairment

Most of the teachers confirmed that they were collaborating with the parents of the affected students. However three teachers had a different view on the above. They said that matters involving communication with people outside the school was administrative. These parents were seen to be part of the said outside community and therefore they could not communicate to them. They said that such matters were supposed to be handled from the administrative offices. According to these teachers their duties were only to report such cases to the relevant offices for action to be taken from there.

4.6.2.1 Challenges facing Collaboration with Parents of Learners with Visual Impairment

Teachers who reported to be collaborating with the parents of the affected students complained that they were facing challenges. Among those faced challenges included the following.

Ignorance among the parents. In this parents were said not to be reporting to school as require when invited. Further when called via the school official numbers they could ignore the calls and never to call back or do it very late. Further when advised to buy some supportive materials they were either not buying or buying very late when their children were no longer in need of such materials.

Absence of knowledge about special educational needs among the teachers was also mentioned. Having mentioned earlier that none of the teachers who had relevant training they felt that they were not adequate to handle these learners. They said that whenever they called upon parents they were being required to give answers and advises on matters that they felt to be beyond what they were able.

Poverty was also sighted. Some parents were not following advises given especially those that had financial implications on their side. For instance when they were required to come to school or take their children for specialized checkup they failed to do so. The teachers felt that some of these situations were so because some parents were financially unstable and therefore could not meet the financial obligations involved.

Some parents were reported to be either without knowledge of the issues their children were undergoing or not willing to disclose. This was so because when probed on some matters they were not giving adequate information which teachers felt was important in handling some learning challenges that were being faced by their children.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the previous chapters. It also draws conclusion and recommendations of the study based on the study objectives.

5.2 Summary of the Findings

5.2.1 The Level of Knowledge of the Teachers in Inclusive Education

The study attempted to explore into the level of knowledge among the teachers handling students who are having visual impairment in an inclusive setting. The study established that many of the teachers teaching in the study area were degree holders. This shows clearly that most of the teachers were able to handle curriculum in their teaching areas. It also established that there were only two teachers who had a formal training in handling the special needs students. One of the teacher had done Kenya sign language and the other had a training in mental impairment. The two kinds of training are seen not to be applicable to the visually impaired learners. This therefore is a clear indication that most of the teachers teaching in inclusive settings lack the formal knowledge to teach in the same setting. This translates to inadequacy in the delivery and hence the visually impaired learners are not well attended.

Further it was noted that the teachers had proper understanding of what inclusive education entails. However they sighted a number of challenges that included using of different teaching methods for one group of learners, learners taking too long in copping notes poor handwriting among learners as well as attending to learners independently. These approaches were said to have adverse effects on curriculum implementation and timely syllabus coverage.

5.2.2 The Techniques Employed by the Regular Teacher in assessing the Needs of the Visually Impaired Learners

The researcher indent to establish the methods used by regular classroom teachers when they are assessing the learners with visual impairment so that they can make teaching and learning preparations from an informed point of view. The idea behind this is to establish how suitable these assessment methods are.

A number of assessment techniques were used by teachers in order to assess the needs of the visually impaired learners. These techniques included the following; observation of the learners as they perform various tasks and how they strain, use of individual tasks is also a method employed. Other methods used includes assessing complains raised on eye problems as well as observing their handwritings.

Assessment was also said to be faced by a number of challenges. These included in availability of proper facilities for assessment hence using improper approaches. Further some learners were said to be taking advantage of such situations and pretending to be having visual problems. Teachers complained to be lacking adequate knowledge on assessment since they had no specialized training.

5.2.3 The Adaptation Techniques used in teaching the Visually Impaired Learners

In this the researcher had an intention of establishing how the teachers adapt their teaching approaches so that they can be appropriate for learners who have visual impairment in their inclusive classes.

Adaptation techniques for teaching that were realized in the study included the following; Allowing the learners extra time when performing teaching and learning activities, proper sound projection that allows every learner to hear what is being taught since they mainly depend on what they hear. Further the text used is also adapted to ensure that it could be easily seen. Adaptation was also done by ensuring both the teacher and the visually impaired learner were positioned in strategic places.

On this note challenges were also faced. Among others the following were mentioned to be challenges; adaptation was said to be very tedious and involving. The teaching and learning resources for adaptation of learning were not available and those available were not adequate. Further adapting techniques were said to be spending a lot of time that could have been used in teaching. These adaptation techniques were said to be one of the key causes of low syllabus coverage

5.2.4. Collaboration with Relevant Education Stake Holders for Delivery of Quality Education

In an education system all the stakeholders are important and should be called to order. In this part the study was establishing the level of involvement of these stakeholders by the regular teachers who teach the learners with visual impairment in an inclusive class.

Unanimously all the teachers proved to have general understanding of the concept of co-teaching as a method of collaborating with colleagues. Further during interview the teachers confirmed that they were using co-teaching in class as a way of collaboration although during observation none was observed.

Approaches that were mentioned to be employed during co-teaching included; bringing in teachers to address specific issues affecting learners with visual impairment, interchanging of classes for teachers to teach what they were comfortable with maybe due to age, gender or religion issues. Further it was mentioned that when the teachers were absent they could invite their colleagues to teach their classes.

However the approaches of co-teaching used were found to be too general. These approaches were found not to be very suitable for learners who were having visual impairment in inclusive classes.

It was further established that it's only 79% who were collaborating with the parents of learner with visual impairment while 21% of the teachers were uncomfortable with this approach.

5.3 Conclusions

From this study the researcher concludes that all the ages between 20 and 60 years are represented in inclusive schools but with majority in the age brackets of between 20 and 40 years. It has also been realized that majority of those who teach in these schools are ladies. On demographic it was also realized that majority of these teachers had an experience of 14 years and below. Very crucial was on availability of specialized training that these teachers lack relevant training on special needs education.

On knowledge on inclusivity the teachers were found to be having the basic and general understanding as the education that accommodates all the groups of learners. These teachers sighted a number of challenges when teaching learners with visual impairment in an inclusive

class. These challenges can be associated to the issues raised in the demographic data analyzed above.

The techniques employed in assessing learners with visual impairment were found to be too general and therefore could not achieve much for better performance of learners with visual impairment. Further a number of challenges were sighted. These challenges can also be associated to absence of relevant knowledge among the teachers.

On the content delivery methods they were also general but adaptations were made in order to accommodate those learners with visual impairment. However there is need for improving these adaptations since they were marred with challenges. These challenges are related to knowledge and time for syllabus coverage.

Teacher collaboration with the relevant education stake holders was found to be there in these schools. Although it is not all the teachers who collaborate. However this collaboration was found to be done in a manner that is too general for learners with visual impairment. Among the stakeholders collaborated with were other teachers as well as the parents of the affected learners.

Consequently there is need for reviewing the inclusive education policies for students who are having special needs with the aim of improving service delivery for such learners as well as their colleagues who have no visual impairment.

5.4 Recommendations

This part provides the recommendations that the government and other education stake holders need to implement so as to ensure quality education among learners with visual impairment. Further the part suggest areas of interest that more research is required so as to provide relevant information for improving learning for the students having visual impairment and other special needs.

5.4.1 Recommendations for Policy
(a) There is need for the government to implement inclusive education in all schools as it was required by the UNESCO conference held in 1994 at Salamanca in Spain. Kenya had delegates in this conference and ratified the charter.

(b) There is need for the government and other stake holders to come up with strategies to train the teachers teaching the students in an inclusive setting in order to empower them with appropriate knowledge to be able to handle students in an inclusive setting effectively.

(c) The government and other stakeholders should ensure that they provide assessment personnel and facilities in inclusive schools in order to ensure timely and proper assessment of students who are having visual impairment.

(d) It is necessary to have specialized training of teachers in various areas of special needs and deploy them in schools which inclusivity of learners with relevant special needs so as to assist the regular teachers in curriculum implementation.

(e) The government and other education stakeholders should provide inclusive schools with various adequate adaptive materials and facilities for effective content delivery to learners with visual impairment.

5.4.2 Recommendations for Further Research

(a) Research should be carried out on causes of poor implementation of inclusive education in Kenyan schools.

(b) There is need for a study on causes of poor transition of learners with visual impairment from primary to secondary schools and beyond.

(c) Researchers needs to look at the strategies of adaptation teaching and learning materials for students who are having visual impairment.

(d) Survey is necessary on causes of having low numbers of experienced teachers in inclusive schools.

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APPENDICES

APPENDIX 1: USE OF YOUR DATA COLLECTION TOOLS

timothy opete <timothyopete@gmail.com> Wed, Apr 24, 2019 at 3:02 PM

To: benediction2@ymail.com

Hello Mr Barack Mwakyeja. Am Timothy Opete Mutia, a master's student

From the university of Nairobi, Kenya. Through the advice of my project

Supervisor I wish to request you to allow me use your master's thesis

Research tool in data collection. Your positive response will be

Highly aerated. Thanks in advance.

Baraka Michael Mwakyeja <benediction2@ymail.com> Wed, Apr 24, 2019 at 5:05 PM

To: timothy opete <timothyopete@gmail.com>

DEAR,

YOUR EMAIL WAS WELL RECEIVED.

KINDLY PROCEED.

I WOULD LIKE TO KEEP IN TOUCH AND HEAR FROM YOU HOW SUCCESSFULLY

YOU BECOME.

THANKS AND REGARDS,

Baraka Michael Mwakyeja,

Senior Administrative Officer,

Mkwawa University College of Education (MUCE),

P.O.Box. 2513,

Mobile: +255767244677/ +255715244677,

Email: benediction2@ymail.com,

Skype name: benediction34.

Call to me, and I will answer you,and show you great and mighty things,

which you do not know - Jeremiah 33:3.

[Quoted text hidden]

timothy opete <timothyopete@gmail.com> Wed, Apr 24, 2019 at 6:17 PM

To: Baraka Michael Mwakyeja <benediction2@ymail.com>

Amen and Thank you brother, I promise to keep in touch with you as we

peruse both education and the kingdom of God.

On 24/04/2019, Baraka Michael Mwakyeja <benediction2@ymail.com> wrote:

DEAR, YOUR EMAIL WAS WELL RECEIVED. KINDLY PROCEED.I WOULD LIKE TO KEEP IN TOUCH AND HEAR FROM YOU HOW SUCCESSFULLY YOU BECOME.THANKS AND REGARDS,

Baraka Michael Mwakyeja, Senior Administrative Officer, Mkwawa University College of Education (MUCE),P.O.Box. 2513,Mobile: +255767244677/ +255715244677,Email: benediction2@ymail.com,Skype name: benediction34.

[Quoted text hidden]

timothy opete <timothyopete@gmail.com> Wed, Apr 24, 2019 at 6:20 PM

To: karenodhiambo2@gmail.com

I managed to ask for permission and this was the response

[Quoted text hidden]

timothy opete <timothyopete@gmail.com> Wed, Apr 24, 2019 at 7:53 PM

To: karenodhiambo2@gmail.com

[Quoted text hidden]

timothy opete <timothyopete@gmail.com> Wed, Apr 24, 2019 at 7:54 PM

To: karenodhiambo2@gmail.com

On 24/04/2019, timothy opete <timothyopete@gmail.com> wrote:

[Quoted text hidden]

timothy opete <timothyopete@gmail.com> Wed, Apr 24, 2019 at 8:02 PM

APPENDIX 2: RESEARCH PERMIT

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: 209489

Date of Issue: 28/March/2020

RESEARCH LICENSE

This is to Certify that Mr.. Timothy Opete Opete of University of Nairobi, has been licensed to conduct research in Kitui on the topic: Teaching Learners with Visual Impairments in Inclusive Classrooms and the Challenges teachers face while teaching.A case study of Kitui school in Kitui Central Sub-County of Kitui Kenya for the period ending : 28/March/2021.

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Scan the QR Code using QR scanner application.

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APPENDIX 3: INTERVIEW GUIDE FOR TEACHERS

Background information

Age…………………………………..

Gender …………………………………………….

Years of experience…………………………………

For you long have you been in your current station…………………….

What subjects do you teach?

a. ……………………………………………………

b. …………………………………………………….

What is your highest qualification? ………………………………

Do you have any training in special needs education…………………

If yes state

a. …………………………………………………

b. …………………………………………………….

c. …………………………………………………………

Interview Questions:

1. How do you understand inclusive education?

2. What challenges do you face when teaching in an inclusive classroom?

3. How do assess the learning needs of students with visual impairments in inclusive classrooms?

4. What challenges are associated with assessment of special educational needs of students with visual impairments in an inclusive classroom?

5. What teaching methods do you use to teach students in inclusive classrooms?

6. How do you adapt each of the teaching methods you use in order to meet the needs of students with visual impairments in inclusive classrooms?

7. What challenges do you face in using and adapting teaching methods for students with visual impairments in an inclusive classroom?

8 (a) Do you understand Individualized Education Plan (IEP)?

(b) (i) If the answer is "Yes", how do you understand it?

(ii) How do you implement it to meet the needs of students with visual impairments in inclusive classroom?

9 (a) Do you understand the meaning of Co-teaching? If "Yes" How do you understand it

(b) How do you implement Co-teaching to help students with visual impairments in an Inclusive classroom?

(c) Do you collaborate with parents of students with visual impairments? If "No" Why?

10. What challenges do you face in the collaboration with special needs teachers and parents of students with visual impairments in an inclusive classroom?

11. What other information would you like to add concerning inclusive education and visual impairment?

THANK YOU FOR YOUR PARTICIPATION!!

APPENDIX 4: OBSERVATION SCHEDULE

Observation was conducted to answer the sub-question 3. The question was:

How do teachers adapt their teaching methods for students with visual impairments in inclusive classrooms? Under this question, the following aspects were considered.

The following is check list for classroom observation

(i) Using group discussion/ Collaborative learning

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………………………………………………………………………………………………

(ii) Using questions and answers

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(iii) Extra time allowance

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(iv) Calling student' names

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(v) Sound projection

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(vi) The use of teaching materials e.g. Visual and audio devices and tactile materials

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………………………………………………………………………………………………………

(vii) Encouraging the use of learning devices

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………………………………………………………………………………………………

(viii) Adapting written texts

………………………………………………………………………………………………………

………………………………………………………………………………………………..