

**AN EVALUATION OF PRIMARY SCHOOLS' PREPAREDNESS TO
INTEGRATE LEARNERS WITH VISUAL IMPAIRMENTS INTO INCLUSIVE
EDUCATION IN BOMET COUNTY, KENYA**

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DECLARATION AND APPROVAL

This research thesis is my original work and has not been submitted for examination at Maasai Mara University or any other University.

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DEDICATION

This work is dedicated to my wonderful family, my husband John, children; Aaron, Faith and Abbie, without whose moral support and encouragement, it would have been difficult to come this far, also above all the Almighty God whose mercy and grace have been abundant.

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ABSTRACT

Inclusive Education is an approach in which learners with special needs receive services and support appropriate to their individual needs within the regular education setting. The policy of the Kenya government on inclusive education states that Special Education should follow a policy of integrating the challenged children in society where they are not segregated in Special Schools instead their education be provided within the community where they are expected to take up their places in adulthood. The study sought to find out on the preparedness of regular public primary schools to integrate the learners with visual impairments into inclusive education in Bomet County, Kenya. The objectives of the study were: to investigate the determinants of primary schools' preparedness to integrate the learners with visual impairments into inclusive education; to determine the extent of primary schools' preparedness to integrate the learners with visual impairment in inclusive education; to determine if gender of the learners with visual impairment influence their enrolment into inclusive education in integrated primary schools. The study provided information that would help the Kenyan government to improve on the implementation of inclusive education for learners with VI. The research adopted descriptive survey design as this allowed description of issues as they were. Purposive sampling technique was used to select the sample population. Questionnaires were used to obtain data from teachers, head teachers and Educational Assessment Resource Center, EARC, coordinators while interviews were designed for learners with visual impairment, VI. Data was analyzed using descriptive statistics and presented in graphs, pie-charts and frequency tables for interpretation. The study was pegged on constructivist theories of Zone of Proximal Development, ZPD, of Lev Vygotsky and Maria Montessori. The study found out that integration of inclusive education for the learners with VI faced many challenges which included; insufficient skills by teachers due to lack of training in Special Needs Education, most did not have braille skills and could not teach the learners with VI effectively with the other learners without VI. The school environment posed a great challenge since no majoradaption was made to suit the learners with visual impairment. There were no pavements to ease their mobility for proper orientation within the school compound. Negative attitudes and poor cultural beliefs affected learners with VI greatly. The curriculum they followed has not been reviewed to meet their specific needs. Gender however did not affect their enrolment in schools, both boys and girls were cited as being enrolled equally. Major recommendatios therefore were: schools should adapt the environment to suit the learners with V.I, teachers be trained adequately to teach learners with V.I effectively, the government to allocate more funds to support Special Needs Education, SNE, programmes in schools, more SNE personnel to be employed to supervise these programmes, the education curriculum to be used by learners with V.I to be reviewed to suit their diverse needs. Parents to be sensitized on the importance of educating children with visual impairments.

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ABBREVIATIONS AND ACRONYMS

ABC	Africa Braille Centre
DEO	District Education Officer
DFID	Department for International Development
EARC	Educational Assessment and Resource Centres
FPE	Free Primary Education
IT	Information Technology
IEP	Individualized Education Program
KBCR	Kericho Bomet Community based Rehabilitation
KESSP	Kenya Education Support Sector Programme.
KIEP	Kenya Integrated Education Programme
KISE	Kenya Institute of Special Education.
KSB	Kenya Society for the Blind
KBBCES	Kericho Bomet Bureti Comprehensive Eye Service
MOEST	Ministry of Education Science and Technology
NACOSTI	National Council for Science, Technology and Innovation
NGO	Non Governmental Organization
PTR	Pupil Teacher Ratio
ROK	Republic of Kenya
SNE	Special Needs Education
SPSS	Statistical Package for Social Sciences
UNESCO	United Nation Environmental Social and Cultural Organization
UPE	Universal Primary Education
VIC	Visual Impaired Children
WHO	World Health Organization
ZPD	Zone of Proximal Development

CHAPTER ONE

INTRODUCTION

1.0 Introduction

Chapter one covers the following topics and sub topics; Background of the study, statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, scope of the study, assumptions of the study and definition of operational terms.

1.1 Background of the Study

Mainstreaming is placing of children with disabilities in regular classes with those without disabilities. This means having children with disabilities, in this case learners with visual impairment, learning in the same classroom with the other children without disabilities. Inclusive Education then follows where learners with visual impairments receive services and support appropriate to their individual needs within the regular education settings. The learners with VI in this study will require training on specialized supportive devices like braille machines, use of stylus pens, modified environments for proper orientation and adequately trained teachers to teach them. Disability is not inability the learners with VI are also entitled to access quality education since they can lead and do tasks done by those without disabilities.

Current federal laws in Kenya, such as Persons with Disabilities Education Act (2003) mandate that a child with a disability has a right to attend free and appropriate public education in the least restrictive environment provided by his/her local school system. The Kenya government through the Ministry of Education Science and Technology rolled out a programme on Inclusive Education where learners with various disabilities are placed in public primary schools within their environments.

In response to these legislative directives some schools and districts have made tremendous efforts in overcoming challenges in providing children with disabilities access to education (Huffman, 2003) indicate that the U.S census Bureau indicates that 6.5 million children have some type of disability and that 95% of these students attend regular schools with their “ normal” classmates (Huffman, (2003).

Rukwaro and Kimani (2007) argue that teachers should have an understanding of these children's abilities and disabilities and the unique needs inherent being disabled. A knowledgeable and sensitive teacher who understands a student individualized Education Programme (IEP) and meets the students' needs will do much in creating a classroom environment where inclusion is a positive experience for children with and without disability (Rukwaro & Kimani 2007)

Towett, (2012) EARC Coordinator, Bomet County explained that in line with integration of learners with visual impairment who have been included in regular schools, the schools have not paid attention in terms of what it takes to integrate such learners. The schools have no pavements for easy movement of the learners with visual impairment using the white canes. There is grass all over the compound which makes their mobility very difficult and very hard to get proper orientation. Teachers also do not have adequate skills to teach the learners with visual impairment since they went through the regular teacher training college without specialized training on the same. However, there are a small percentage of teachers who have undertaken courses on Special Education but have not participated effectively in the integrated programmes.

Teachers' attitude towards the learners with visual impairment is still negative since they lack adequate skills to teach them. Parents on the other hand would prefer such children hidden away at home since they are considered a curse or bad omen to the family and society as a whole.

Some parents are however ignorant of the integrated programmes which have been introduced in Kenyan schools. Large numbers of the learners with visual impairment are likely to be found at home. Finally the few integrated schools lack very important supportive devices like the braille machines, white canes and stylus pens to name but a few. These devices are very important, without them the learners with visual impairment, would not be able to learn (Towett, 2012).

UNISE and KISE (1993), states that the importance of school in the lives of all children is well known and for the children with disability being in school accords them a sense of normalcy and acceptance. Teachers, therefore, play an important role in enhancing the disabled child's self- esteem and assist them to have a positive view in attaining education (UNISE & KISE, 1993). UNESCO (2010) in Child Friendly School Manual put forward that children with disabilities are usually isolated due to cultural beliefs of the society. These children were previously and to some extent are still isolated even today; this has led to stigmatization of the individual child as well as the entire family.

These children feel neglected and rejected in the society. The government has introduced the programme of inclusive education for learners with disabilities in the regular classrooms. To reduce challenges like stigmatization, low self-esteem and poor morale, the society should be sensitized on the importance of enrolling the learners with visual impairments in school as well as to be able to see them in a positive way. This is because these children can also do what other children without disabilities do since disability is not inability. The learners with visual impairment should be encouraged to take part in every- day activities to avoid over dependence on others and this will boost their self-esteem further. This was made real by the declaration that all persons are entitled to Free Primary Education regardless of their disabilities (UNESCO, 2010).

Kenya Society for the Blind Journal (2011) indicated that the education service department in conjunction with the Ministry of Education and with the help and support of Sight Savers International are involved in the implementation of the Kenya Integrated Education Programme (KIEP) in 34 Sub-counties in Kenya, Bomet Sub-County included. The programme integrates the learners with VI together with the sighted children in ordinary school within the environment of the learners. These learners share the same educational facilities (Kenya Society for the Blind annual report 2011). Intervention programmes as well as in-servicing of teachers is also supported. There is also provision of equipment like Braille machines, paper cassette recorders and white canes among others.

Government of Kenya (GOK), Sessional Paper No.1 (2005), aims at paying special attention to vulnerable and disadvantaged children. It is the government's policy that children with visual disabilities are not excluded from the mainstream education. In the year 2003, the government declared Free Primary Education (FPE) and has continued her commitment to Universal Primary Education (UPE). It has been noted that the learners with Visual Impairment have the lowest access to participation in education in Kenya due to stigmatization, cultural beliefs, poor attitudes and Parental ignorance. Recent analysis by KIEP indicate that the implementation of inclusive education for the visually impaired learners faces a lot of challenges therefore prompting the researcher to carry out the study on primary schools preparedness to integrate inclusive education for the visually impaired learners in Bomet County, Kenya. Children with disabilities should be integrated / mainstreamed and should attend public schools in places where they are found (UNESCO, 2010) inclusion of the learners with visual impairment is a strategy by the Kenyan Government to cater for the disadvantaged learners. The study sought to find out how prepared the schools were to integrate the learners with visual impairment in inclusive education in Bomet County, Kenya.

1.2 Statement of the Problem

Children with visual impairment have challenges in achieving academically unlike the children without disabilities. They were initially being enrolled in special schools for the visually impaired. This caused stigmatization since they felt that they were different from the other normal children, they had low self-esteem and they felt isolated in special schools away from their home environment. The Government of Kenya introduced inclusive education for learners with disabilities in regular public primary schools. This was emphasized by the declaration that all persons with disabilities were entitled to education in the places where they are found. The learners with VI should therefore attend public primary schools found in their neighbourhood.

Implementation of inclusive education for learners with visual impairments face a lot of challenges which range from; poor parental attitudes towards the visually impaired children and their ability to achieve, availability of facilities in schools to facilitate learning, the government inputs in the regular schools. In Bomet County, there are twelve teachers who have been trained to teach the learners with visual impairment in the entire Bomet County. Out of these twelve teachers, only six teach the children with visual impairment and others are in regular primary school. Therefore there was need to find out how prepared are regular public primary schools to integrate inclusive education for the learners with visual impairments.

1.3 Purpose of the Study

The purpose of this study was to investigate the preparedness of regular public primary schools to integrate the learners with visual impairment in inclusive education in Bomet County, Kenya.

1.4 Objectives of the Study.

- i. To analyze determinants of primary schools' preparedness to integrate the learners with visual impairment into inclusive education in Bomet County.
- ii. To determine the extent of primary schools' preparedness to integrate the learners with visual impairment in inclusive education in Bomet County.
- iii. To evaluate if gender of the learners with visual impairment influence their enrolment in inclusive education in integrated primary schools in Bomet County.

1.5 Research Questions

- i. What are the determinants of primary schools' preparedness to integrate the learners with visual impairment into inclusive education?
- ii. To what extent are regular primary schools prepared to integrate learners with visual impairment into inclusive education?
- iii. Does gender influence the enrolment of the learners with visual impairment into inclusive education in primary school?

1.6 Significance of the Study

The study sought to provide information that may help the government of Kenya to improve inclusive education of the learners with visual impairment in regular public primary schools. The findings of the study would be beneficial to the key stakeholders in terms of better implementation of inclusive education for the children with visual impairment. The findings also would help the government of Kenya to see the need to review the existing policy on the integration of the children with VI in regular public primary schools.

1.7 Scope of the Study

The study was carried out in three regular public primary schools which offer inclusive education for the learners with visual impairment in Bomet County.

It sought to find out how teachers are prepared or skilled in orientation and handling the environment for the visually impaired learners, the availability of teaching supportive devices and the curriculum that suited the learners with visual impairment in public primary schools in Bomet County. The study was only limited to the views of the head teachers, EARC coordinators, teachers and the children with V.I in the selected schools within the county. There were few schools that were integrated to offer inclusive education for learners with visual impairment

1. 8 Limitations of the Study

The following limitations underpinned the study;

- i. The inability by learners with visual impairment to read the interview questions written in normal print on their own, required the researcher to interview them, since the study did not use braille machine to write the questions.
- ii. There was difficulty in administering questionnaire for learners with visual impairment since they could not read the normal print therefore interview method was used to collect data from them.

1.9 Assumption of the Study.

In this study, the assumptions were:

- i. That the respondents would give honest responses.
- ii. That there was proper implementation of inclusive education for learners with visual impairment in regular primary schools.
- iii. That the teachers who teach the learners with visual impairment had some knowledge on handling learners with visual impairments.

1.10 Definition of Terms

The following operational definitions are presented as used in the context of the study:

Inclusive education: For this study it involves inclusion of children with disabilities in this case the visually impaired, with those without disabilities in one classroom or learning environment.

Integration For this study it refers to the process of becoming a full member of a group in this case a classroom

Persons with disabilities: For this study, IT refers to those persons in whom the presence of physical, psychological, cognitive language disorder or social factors make it difficult for the realization of their needs and full potential.

Preparedness: For this study, it is a state of being ready to carry out a given task.

Regular schools: For this study, schools which are designed for the ‘normal children’, those that do not require extras to facilitate learning.

Person with visual impairment: For this Study, a person who does not have the ability to see completely and needs assistive devices in order for them to go through their education.

Visual Impairment: For this study, it is visual loss to such a degree as to qualify for additional support needs through a significant limitation of visual capability resulting from either disease trauma, or co-genital or degenerative condition that cannot be corrected by conventional means such as refractive correction or medication.

Inclusion: For this study, an approach in which learners with special needs receive services and support appropriate to their individual needs within regular education setting.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews literature related to this study, the literature covers Global Perspective of Inclusive Education, General education curriculum of inclusive education in Kenya, Early interventions and strategies of teaching the children with visual impairment, classroom arrangement, teaching materials, resources required for teaching the children with visual impairment, the role of Kenya government in inclusive education for the learners with visual impairment , development of inclusive education for the learners with visual impairment in Bomet County, inclusive education in Kenya, theoretical framework and conceptual framework.

2.1 Inclusive Education

Schools for children with visual impairment began to open as early as, the 18th century. Smith and Tyler (2010) cited 1784, the first school was opened in France by Valentine Hally, the institute for blind youth as it was called. He conceived a system of raised letters on the printed pages. However, during the French revolution in 1789, it ended Hally's work. By the early 1800s another French man, Louis Braille had developed a tactile for reading and writing. He also designed an embossed six- dot cell system, the forerunner of the reading and writing method used today.

In 1821, Samwel Gridle Howe opened the first centre school for the students with visual impairments in United State of America (Smith & Tyler, 2010). Smith and Tyler (2010) continued to state that around 1832, the New York Institute for the blind and Pennsylvania institute for the introduction of the blind were founded.

These were private boarding schools usually attended by children with visual impairments from wealthy families. In Scotland the first class for the learners with visual impairment started in 1872. The Scottish Education Act required students who were visually impaired to be educated with their sighted classmates and to attend schools in their local communities. Mainstreaming and inclusion movements were no longer new concepts; their roots are deep in the history of education of students with disabilities. In the United States, the first concentrated attempts to integrate students who were visually impaired into public schools were made in Chicago.

In 1900, Frank Hall, superintendent for the Illinois school for the blind convinced people to allow students who were visually impaired to attend local schools in Chicago region, near where they lived. These students attended general classes but also had special education teachers who taught Braille and helped them participate in the general education curriculum. Hall also developed a small portable machine for taking notes and completing other written tasks in braille - the precursor of the sophisticated technology available today. In addition to reading and writing difficulties, freedom of movement is a challenge for those with limited vision or no sight. The more popular method to assist mobility is the long cane or white cane which was developed around 1860 by Richard Hoover after whom the Hoover cane is named; he developed mobility and orientation system in 1944. Before this time there was no systematic method for teaching individuals how to move freely in their environment (Smith & Tyler, 2010).

Sacks and Rosen (1998) argue that during the 1960s the rubella (German measles) epidemic in Europe, left many children with disabilities which included visual impairments. This caused increase in students with visual impairment and it therefore strained the capacity of residential schools and at the same time parents began to call for their children to attend their local public schools.

Advance in technology has significantly influenced the lives of individuals with visual impairment over the past 30 years, improvement in computer capabilities have allowed for efficient and inexpensive print enlargement and translation of print to Braille. The first print-to-voice translator, the Kurzweil Reader was developed in 1970s today there are versions of optical scanners as well as every day computer that translate print to voice, these provide immediate access to printed text not available before (Sacks & Rosen,1998).

In China there are about 70,000 school-going children with visual impairments of age 7-15. Most of them live in rural areas and mostly come from poor families who cannot afford expensive education in the schools for the blind which are mostly found in the cities. Integrated education in regular schools was one of the feasible ways of enabling the mass number of learners with visual impairment to receive the necessary education. A survey conducted by Hong Kong Society for The Blind in 13 schools in 1996, found that the schools for learners with VI employed 386 teachers of whom 366 were sighted while 20 were visually impaired and 68% of these had university Education and above. Staff to Student ratio was 1:78 which is very high, also it was noted that there was lack of appropriate equipment and facility.

The survey also showed that China has tried to produce Braille Equipment for schools though it is still at the manual operation stage, they also carry out talking books equipment production. The findings also revealed that schools for learners with V.I. served as resource support centers as well as training centers. In 1995 the education Commission of the Guangxi Zhang autonomous region embarked on integration programme for the learners with VI. Some of the assistive devices used in China include computers, Braille, interpointer, ambossers, braille Scanners and thermoform machines. In conclusion learners with VI in China have made tremendous progress in their study.

They have become more confident, hopeful and most importantly they have felt part of the community. In South Africa, education for the learners with V.I started in 1863 when Roman Catholic Church established the first school for children with visual impairments in Cape Town. The number of schools increased to 20, all private initiated (churches and other private organization). In 1928 the government assumed the responsibility of managing special education. The schools however were established for specific race groups. After the introduction of apartheid in 1948, education was provided within racial boundaries. South African constitution (1997) spelt out that "there may be no discrimination against any person on the ground of race, gender, age, disability.' And that "Everyone has a right to education "two commission of inquiry and education support service were appointed and they gave their report in November 1997.

Their Ministry of Education put forward a document called White Paper no 6: Special Needs Education-building an inclusive education and training system, July 2001. The government of South Africa was determined to create special needs education as a non-racial and integrated component of education. The government wished to achieve this through strategies such as, the qualitative improvements of special schools to be done after an audit of special schools, mobilization of about 280,000 disabled children and the youth in compulsory education, the designation and conversion of approximately 500 mainstream primary schools to full service schools, beginning with 30 schools in identified districts, orientation and introduction of management governing bodies and professional staff at schools, the establishment of district based support team to provide a coordinated professional support service to special schools, full service schools and the implementation of national advocacy and information programme in support of the inclusion model.

To identify with inclusive education there must be a relevant support structure in place, the following crucial elements were identified by Arne Husveg (2001), A Norwegian Organizational leader and Human Rights Activist, this formed the basis of South African Vision.

The article touched on the following key areas; where learners with VI were enrolled there must be qualified Braille instructor without that learners with VI remain illiterate, there must be access to material for Braille teaching at different levels and groups, there must be instructions with thorough knowledge of orientation and mobility techniques, education programme to contain individual skills in daily living skills to strengthen self-confidence, learners with VI at the centres to be given opportunities to attend courses, meet other learners with VI to learn from their experiences, build and strengthen relationships, develop their identity and acquire greater proficiency in compensating skills, education Programme to ensure access and quality service for all visually disabled people, parents must be involved in the education of their children be given the opportunities to exercise their rights to decide the settings where their children's needs would be addressed most appropriately. (Arne Husveg, 2001)

Education for learners with V.I in Kenya when it was first introduced in boarding school, limited access by learners from poor background. Later Kenyan government introduced inclusive education for learners with V.I, the programme has faced a myriad of problems which include lack of various teaching materials as well as lack of competent teachers to teach them.

2.2 Curriculum of Inclusive Education in Kenya

UNESCO (1998) indicated that special schools in Kenya were started by the missionaries and non- governmental organization. They were boarding institution meant to accommodate children from different parts of the country.

At the time there existed few special day schools mainly in urban areas and where integration of children with VI was possible. Education for children with special needs in Kenya is mainly the responsibility of the Ministry of Education although other ministries are involved to a very small extent (UNESCO, 1988). Smith and Tyler (2010) suggest that today large percentage of children with visual difficulties attend neighborhood schools in Kenya. They are supported by resource specialists and itinerant teachers. These students participate in the general education curriculum with their sighted classmates and can perform well in education. The blind learners use tactile senses while others use Braille for reading (Smith & Tyler, 2010).

Education for learners with visual impairments began in 1940, and it was not until 1980 when there was establishment of teacher training program. This resulted to an evolution of a serious consideration for education of learners with visual impairments. Increased attention was paid to orientation, mobility and activities in daily living for learners with visual impairments. A major breakthrough came when the royal common wealth for learners with VI set up computer center to produce books for learners with visual impairments in eastern and central African. Education of learners with visual impairments is one of the areas in special education where achievements have been made. Many students have been able to achieve even university degrees (UNESCO,1998)

According to GOK Sessional Paper No. 1 (2005), before inclusive education was implemented much preparatory work needed to be done, administrators, Educators, Non-Governmental Organizations,(NGO) and community structures concerned with education of learners with challenges, should be involved in the process. The government aims at paying attention to vulnerable and disadvantaged children. It is therefore a policy of the government that visual disabilities are not excluded in mainstreaming in education.

The government declared this in 2003 at the onset of Free Primary Education. The curriculum of learners with V.I should be modified to suit them. However, the curriculum being used currently only is suited for the learners without disabilities.

2.3 Early Interventions of Learners with Visual Impairment

Rukwaro and Kimani (2007) explained that early intervention is the earliest service or training that one offers a child immediately a problem is identified. In children with visual impairment, early intervention will provide them with activities that stimulate vision and hence improve their vision efficiency. It also involves medical intervention. Early intervention should be offered during the sensitive phase when vision is still developing. It further explains that early intervention is important in many ways that include establishing urgent needs of an individual, planning programs to meet the difficulties of the individual, setting objectives to be achieved, referral for medical attention, referral for further assessment, training in daily living activities and deciding on the materials to use (Rukwaro & Kimani, 2007).

KISE (1993), state that children in programmes for learners with visual impairment follow the regular 8-4-4 syllabus that is taught to all children in Kenya. Their curriculum and materials however, need adaptation for them to cope with class work. They require adaptation and modification of materials to suit major senses used in learning. They are mainly taught to read and write through braille using the sense of touch. For Mathematical computation, children use abacus. The following areas need consideration when planning the classroom environment so that children gain from educational services offered (KISE, 1993). However, these suggestions require research to ascertain their availability and functionality for effective learning environment.

2.4 Strategies of Teaching Learners with VI

2.4.1 Classroom Arrangement.

KISE (1993) further explains that teachers should ensure safety for children with visual impairment not only in the classroom but also in other places. Unsafe situations must be anticipated before they cause accidents. Ensure that the arrangement of the room does not change too often and that the children are aware of the layout of the room. Potential dangers to the child include; windows left half open especially those that project outwards onto the pathways around the buildings, sharp objects in hands of other children such as biro pens, pencils or sticks, doors left half open, locker doors or cup boards left half open at head height, school bags or objects left on the floor. They should be informed of unsafe areas in good time (KISE,1993).

2.4.2 Teaching materials

KISE (1993) stated that children who have visual impairments need textbooks that have been transcribed into braille. They require the following teaching materials; an abacus for computing numbers, a braille machine for making notes, a thermoform which is a machine for duplicating braille work and other embossed diagrams, braille papers these are special type of papers on which braille is written and a slate and stylus which are used for taking notes and doing other work when a braille machine is not available. They cannot share with the others in class during lessons because they need to read while touching the raised dots that form written words. They will also need tactile maps and diagrams in order to follow lessons in the classroom. In addition they require life skills, these skills prepare them to move about and live independently, they include;

- (i) Orientation and mobility skills which once mastered would enable them to move freely in his or her environment safely.

- (ii) Dressing skills and other daily living activities which will help learners with visual impairment to lead independent lives without having to depend on others for survival.
- (iii) Typing skills should be taught so that learners with visual impairment are able to communicate through writing.
- (iv) Listening skills are very important because most information received by children with visual impairment is registered through the ears (KISE, 1993).

2.5 Resources Required for Teaching Learners with Visual Impairment.

Mwaura and Wanyera (2007) explained that the government has established a training institution for teachers willing to train in the teaching of learners with VI on special education, at the Kenya Institute of Special Education (KISE).

However few teachers have been trained and those trained are given diverse skills to handle the vast needs of children with different disabilities not only the learners with visual impairments. Those trained have been placed in various school not necessarily the schools that offer inclusive education for the children with visual impairment. It further explained that in its planning and establishment of inclusive education, the government insisted on pre-school programmes for children with all forms of challenges including those with VI. The teacher-pupil ratio is considerably lower for the children with visual impairments because of the following reasons; immobility, techniques for teaching and availability of assistive devices (Mwaura & Wanyera, 2007).

The strategies of teaching learners with V.I like proper classroom arrangement, enough teaching materials as well as availability of resources required for teaching them require to be investigated, hence the need for this research.

2.6 The Role of Kenya Government in Inclusive Education for the Children with Visual Impairment.

Mwaura and Wanyera (2007) indicated that the government has made efforts to ensure equitable distribution of educational resources and opportunities in all areas. These included: Introduction of quota system where teachers from all districts were considered for admission for training at Kenya Institute of Special Education (KISE). Admission to institutions of education is not restricted to children from the catchment areas, adequate manpower requirements for supervisory services for all education programmes, providing incentives for teachers working in special schools and introduction of a feeding programme in schools in disadvantaged areas (Mwaura & Wanyera, 2007). UNESCO (1998) indicate that the educational assessment services in Kenya like many other developing countries have realized that early intervention is vital for the rehabilitation for those children with special needs like the children with visual impairment.

In 1984, the ministry of education launched a district level programme for rectifying children with deficient conditions, Educational Assessment Resource Center, (EARC), these centers have become popular with parents taking their children for assessment hence proper placement. Major strategies put in place in the centers included the following: Use of multi-disciplinary approach in assessment. This is where parents and other professionals like educationist, health and social welfare departments are involved, the establishment of sound and cheap comprehensive assessment services to reach a large number of children, capacity building and public awareness on disabilities and increased parental role to meet educational needs of their children.

UNESCO (1985) reported that there are now more than 42 Educational Assessment and Resource Centers (EARCs) countrywide.

The assessment procedure is mainly concerned with providing educational alternative appropriate to the needs of the child in the available educational facility (UNESCO, 1985). A special feature of special education and inclusive education is sponsorship by voluntary organization and assisted by the government which contributes to about one-third of finances, while parent's contribution is still very low.

UNESCO (1988) prioritized the survival strategies for special education as; early identification and intervention programmes of children with disabilities, legislative provisions or enactments making education of the challenged children free at all levels, provisions of programmes and services so that each challenged child can benefit from the programme suited for his individual needs and ability, enough financial budgets for development purposes, training opportunities for all special education personnel both locally and abroad, change of public attitude towards the challenged from negative reflection to positive and understanding and acceptance as major factors in achieving equal opportunities in education for the challenged children (UNESCO,1988).

According to the Government of Kenya, Sessional Paper No 1, (2005), the government aims at paying attention to gender, vulnerable and disadvantaged children. It is therefore a policy of the government that visual disabilities are not excluded in mainstreaming in education. The government declared Free Primary Education (FPE) in 2003 and has continued to strengthen her commitment to providing education to learners with VI. Kericho Bomet Community based Rehabilitation report (KBCR2011) indicate that despite the government's good intentions, enrolment of the learners with VI is still low due to the fact that there is stigmatization, poor cultural beliefs, poor attitudes and ignorance of parents and therefore these children live a neglected life and often kept away from the general public (KBCR,2011).

KIEP (1989) report indicated an under supply of the requisite resource for children with VI, due to frequent change in curriculum, teaching/learning materials and especially production of Braille books. The report further revealed that the head teachers interviewed proved that about 50% of the learners with VI enrolled in schools are handled by teachers without prerequisite special skills. About 85% of school environment are unfriendly to learners with VI, these school environments are without ramps, pavements, appropriate colours and improved lights. Free primary education, FPE, funds for special education has not been adequate as projected by KESSP (Kenya Education Sector Support Programme). A child with visual impairments requires approximately Kshs. 17,000 per child to cater for their learning and teaching materials.

To empower the learners with VI in information technology (IT), KIEP with the support of Department for International Development, DFID, a UK based organization piloted new software programmes called the Dolphin pen which enables children with visual impairment to use a computer just like anyone else. Piloted institutions are: Kenyatta University, Mosoriot TTC, Asumbi TTC, Machakos TTC, Moi Girls Nairobi, Kipsigis Girls High School, and Kericho Tea Secondary School both in Kericho County, Bungoma High School and Thika High School (KBCR, 2011). According to The Basic Education Act (2013) no. 14, every child has a right to free and compulsory education, also that all counties together with the National Education Boards should facilitate the establishment of special and integrated schools for learners with disabilities (The Basic Education Act , 2013).

2.7 Development of Inclusive Education for the Children with Visual Impairment in Kenya.

According to statistics in the EARC office, Integration of inclusive education for learners with VI was started in 1997 in the county.

There were six (6) low vision learners who were enrolled at Longisa Primary School. These learners continued with learning but later some dropped out of school, others were enrolled in other schools like Chemaner Primary School, Siwot Primary School and some were placed in special units such as Thika School for the Blind. The following schools have integrated learners with visual impairments, Korara Primary School, Simotwet Primary School, Kwenikab-llet Primary School, Kiriba Primary School, Kapkesosio Primary, Tumoi Primary School, Tilangok (Kaboson) Primary School and Chang Chego Primary School.

The Kenya society for the Blind KSB (2010) in conjunction with the Sight Savers International started the Kericho Bomet Bureti Comprehensive Eye services (KBBCES). This body runs education services by providing Braille machines, Braille papers, dates stylus, low vision desks as well as funding itinerant teachers by giving them lunch allowances. It also offers induction services on Braille skills. Other services provided by KBBCES are rehabilitation services, and eye care, they also do training of learners with VI on Braille skills. KBBCES network with other service providers like African Braille centre (ABC). Services rendered by ABC are providing Braille books freely, world globes, repairing Braille machines, training personnel to repair Braille machines (Kenya Society for The Blind, 2010).

Towett (2012) further clarified that learners with visual impairment have always done Kenya Certificate of Primary Education (K.C.P.E). in Bomet, the first learner with VI did KCPE in 2007. Some learners were able to join integrated secondary schools like Kericho Tea Secondary School, Kipsigis Girls High School and Thika School for the Blind, a special unit. There have been effective home visits by Coordinators of Itinerant Teacher CIT, these visits help to make public awareness on the importance of educating the learners with visual impairments as well as to change the society's perception.

CIT visited schools mainly to guide and counsel learners with visual impairments on day to day activities and to motivate them to move on (Towett, 2012).

2.8 Policy Position on Inclusive Education in Kenya

The Gachathi Report (1976): National Committee on Educational Objectives and policies put forward that special education would follow a policy of integration of the challenged in society. They should not be segregated in special schools but education be provided for them within the community where they are expected to take their places in adulthood.

The Leonard Cheshire Disability, Cheshire Homes, Kenya, Non- Governmental Organization, NGO, in collaboration with the government of Kenya and Ministry of Education has established Oriang Cheshire inclusive Education project in Nyanza, Western Kenya, The project of inclusive education was piloted in 5 schools, the project later was able to reach over 6000 children with different disabilities. Forty five teachers were later trained in special needs education through Kenya Teachers training institutions, which facilitated a change in their teaching styles to learners centered approaches. Inclusive education has gone through a lot of milestones in its development in Kenya. Its development has been very slow while the learners with V.I are found in regular public primary schools. According to the policy directives it is noted that attention has not been given to oversee the state of the learning environment and its effectiveness for learning.

2.9 Theoretical framework

This study was guided by the following two theories which were both relevant to the study and were used as complementary;

- (i) Constructivist theory (Maria Montessori -1870-1952)

(ii) Zone of Proximal Development (ZPD) and Dynamic Assessment Model (Lev. Vygotsky -1896-1934)

2.9.1 Constructivist theory (Maria Montessori -1870- 1952)

Maria Montessori taught the handicapped children whom she claimed could also be educated. She developed teaching materials for the handicapped children and later on started integrated education which is totally inclusive education or mainstreaming. Her main emphasis was that children should have a conducive environment to stimulate their senses and to enhance their learning. Maria Montessori also emphasized in her constructivist theory that handicapped children also learn using well- structured materials and instruction which lead to discovery.

This theory is relevant in this study because Maria Montessori emphasized on the use of materials when teaching and learning. The study is on children with VI who need teaching and learning materials more to compensate for their sight. The learners with VI use their tactile senses more hence the need for materials to manipulate in the process of learning. This is what the researcher intended to investigate within the area of study, readiness for integration that includes the material availability among other necessities for effective learning among learners with VI. The study attempts to find out whether schools are adequately prepared to include children with visual impairment in terms of environment orientation, training of teachers and use of appropriate apparatus or devices to assist in learning in inclusive education classes in Kenya today (Smith & Tyler, 2010).

These children should be able to learn individually in what is called principle of self-education using well devised apparatus or assistive devices like Braille and white cane in the case of my study (Smith & Tyler, 2010).

Children with VI can be able to learn if provided with a stimulating environment. Their environment should be well structured to ensure easy mobility with their white canes. Their learning should take advantage of their sense of touch in manipulation of materials in form of using braille machines while learning. Teachers should be equipped with adequate skills to help them to develop materials and come up with suitable teaching methods that meet the learning needs of the children with visual impairment. The teachers should have knowledge of using braille machines to impart knowledge to the children.

2.9.2 Zone of Proximal Development (ZPD) and Dynamic Assessment Model (Levi Vygotsky- 1870-1934)

Vygotsky's vision as put forward by B. Gindis (1999) under the topic understanding disability as a developmental process, Vygotsky pointed out the dynamic nature of disability. He argues that constant changes in structure content of disability take place during development under the influence of education. He further says that education development is the result of social learning through the internalization of culture and social relationship.

In the Zone of Proximal Development (ZPD), and Dynamic Assessment Model, Vygotsky observed that with the proper assistance from an adult or a more advanced peers, a child is capable of learning much more than on their own. (Gindis,1999). Vygotsky says Special Education programme should have the same social and cultural goals as the general education and that effectiveness of the compensatory strategies may be relative from the severity of the child's disability. Timeliness and appropriateness in terms of methodology used are therefore important.

He further points out that technology has developed different means to help correct learners with visual impairments in the development of assistive devices like Braille machine stylus and white cane among others. Inclusion as he says, should be a designed setting where entire staff is able to exclusively serve the individual needs of the child with disability, should also be a special system which employs its specific methods because learners with disabilities require modified and alternative education methods (Gindis, 1999). The V.I require assistance from advanced peers and adults, the learners with V.I can be able to learn and master their environment within the school. The teachers should therefore be in a position to teach them using various skills. These learners also need modified alternative teaching methods unlike the other learners without disabilities.

They should be taught mobility and orientation, where mobility refers to that ability to move around safely and efficiently from one place to another while orientation is developing the mental map about the surrounding. The theory laid emphasise on the importance of teachers in helping children reach the full potential (ZPD). To achieve this, they have to be train in handling children with VI. This theory compliments the first theory in that presence of teaching materials alone ,without being used effectively it will not help the learners. They require the significant others in this case the teachers who can improvise or better still modify materials if need be, to suit the learners needs in leaning.

2.10 Conceptual Framework

The conceptual framework represented below was based on research objectives and it helped to identify the key variables of the study.

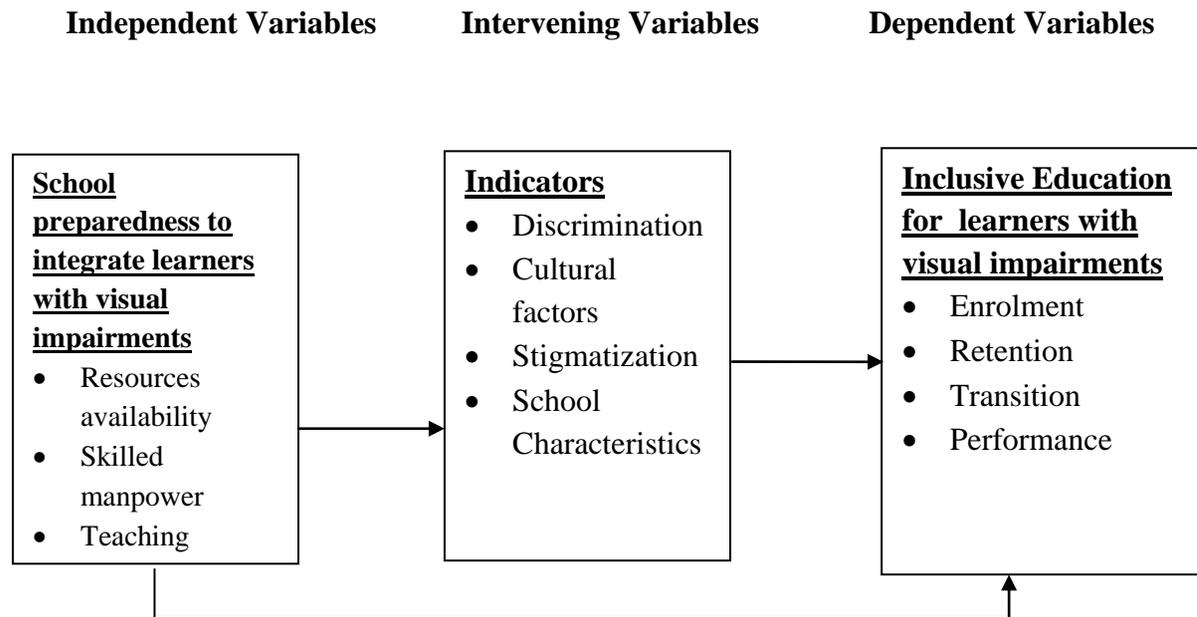


Figure 1. Relationship between school preparedness and inclusive education for the learners with visual impairments.

Figure 1 represents a conceptual framework showing the relationship between inclusive education of learners with visual impairments and schools preparedness. The success of inclusive education for the learners with visual impairments was affected directly by the availability of trained personnel and resources (assistive devices). For the learners with visual impairments to undergo education from one level to another, there must be a trained teacher who is skilled to use assistive devices in teaching them. The learners should be orientated properly on the environment which includes being made aware of the main landmarks in the school for example classrooms, toilets gate and even the seating arrangement in the classroom.

Availability of adequate training of the learner will enable the child to move from one level to another (transition) and therefore enrollment of the learners with VI will certainly go up as a result of the success attributed to a given school. In this study, independent variables are the skilled manpower, methods of teaching/learning the curriculum and resources. In this study, these will be the learners with visual impairments' ability to learn, their performance, their transition, (promotion from one level to another) and the enrolment of the learners in the integrated primary schools.

2.11 Summary

The literature review has confirmed the various definitions of the related aspects in mainstreaming of learners with VI. It has clearly differentiated the terms mainstreaming, integration and inclusive education. From the literature review there is evidence that visual impairments do exist among learners in public primary schools in Kenya. These learners experience many challenges which contribute to difficulties in achieving academically. Visual impairments pose several challenges in the lives of learners with VI who are placed in regular public primary schools with other learners without the impairment within their neighborhoods. This impairment prevents them from reading the ordinary curriculum books unless special text books transcribed in braille are provided for them. These will enable them learn individually in what is termed as principle of self-education using well devised apparatus or assistive devices like braille machines and white canes for easy mobility (Smith & Tyler, 2010).

The existing data reviewed related to the learners with VI in developed countries such as France and U.S.A among others, have elaborate policies that guide the implementation of inclusive education for learners with visual impairments. Literature on visual impairments among the learners in developing countries like Kenya in this study is scarcely available because there is limited literature which has been put forward.

The study mainly relied on modules developed by KISE used to train teachers on Special Needs Education. Most research that has been done dealt mainly other general forms of disabilities not necessarily visual impairment. The study tried to fill the gap by evaluating primary schools preparedness to integrate learners with visual impairments into inclusive education in Bomet County. The learners with VI need to be identified within the society, in order for early intervention to be done, where the learners with VI are assessed and placed in various learning environments.

In inclusive education these learners are placed in the regular primary schools found near their homes. The school environment should be modified to be friendly for easy orientation of the learners with VI. White canes should be made available to assist these learners in mobility in and outside the school. Teachers should be adequately trained to teach them effectively, all other assistive devices should be provided to aid them in their academics. A learner with VI apart from being taught in regular classroom should have well devised and specialized training where they are taught braille skills which should enable them take notes in regular classroom other skills include the use of white canes which aid on how to move about as well as other daily life activities. This is mainly done by teachers with these relevant skills during particular time allocated in the school time table. Their curriculum should be modified to suit their needs effectively like the other learners without disabilities. The society should be sensitized on the importance of educating learners with VI so that they are able to see them like other children without disabilities.

These children should be seen like other children in the society given that disability is not inability. If this approach is successfully done then it will lessen stigmatization and perception of low self-esteem among learners with VI.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter presents the methodology and it covers research designs, study population, sampling techniques and sample size, research instruments, pilot study, data collection and data analysis procedures.

3.1 Research Design

This study adopted descriptive survey design. Kombo, (2006) notes that descriptive design has a major purpose of description of the state of affairs as they exist and the researcher reports the findings. The design is relevant to the study because it is used to assess attitudes and opinions about events, individual or procedure (Kombo, 2006). The design is in agreement with the views of Orodho (2004) that descriptive research study is designed to obtain precise information concerning the current status of phenomenon and to draw conclusion on the found facts. Orodho (2003) as cited in Kombo (2006) explain that descriptive survey is a method of collecting information by interviewing and administering a questionnaire to a sample of individuals, it's used when collecting information about people's attitudes, opinions or a variety of social issues (Kombo 2006). The researcher while using this method constructed questionnaire to solicit desired information, identify the individual to be surveyed, identify the means to conduct the survey and summarize the data in a way to provide the designed described information (Kombo 2006).

3.2 Study Location

The study was carried out in Bomet County. This county was selected purposively for sampling because it has primary schools which integrate the learners with visual

impairment. The county has three public primary schools which have integrated learners with visual impairments. The integrated schools for learners with visual impairments are Korara Primary School in Bomet East Sub-County, Kapkesosio Primary School and Kiriba Primary School both in Chepalungu Sub-County.

3.3 Study Population

The study population in this study comprised; EARC coordinators, head teachers of the integrated regular public primary schools, regular primary school teachers handling learners with visual impairment and learners with visual impairments. The target population of each of the groups is shown in the Table 1.

Table 1

Study Population

Category	Target Population							
	3	EARC Coordinators	3	Headteachers	35	Teachers	17	Learners
Total	3		3		35		17	

Source: Bomet County, Education Office 2013

3.4 Sampling Procedure and Sample size

This study employed multi stage purposive sampling strategies. Purposive sampling technique was used to sample all the three integrating schools, fifteen teachers handling the learners with visual impairments, all the eleven learners with visual impairments and all the three EARC coordinators to get the actual sample dealing directly with the learners with visual impairments. All head teachers of the three purposively sampled schools also formed part of the sample.

According to Kombo and Tromp (2006), purposive sampling targets a group of people believed to be reliable for in-depth analysis related to the central issue being studied. The sampled population was crucial in generation of the required data as they are the main stakeholders in Special Needs Education for the visually impaired learners. The study considered all the study population since it was small and therefore, all were included in the study. The target population and sample sizes of each of the groups are shown in the Table 2

Table 2
Categories of Schools, Learners, Teachers, Headteachers Study Population and their accessible Population Sizes

Category	Target Population					Sample Size				
	EARC	Coordinators	Head teachers	Teachers	Learners	EARC	Coordinators	Head teachers	Teachers	Learners
	3	3	3	35	17	3	3	3	35	17
Total	3	3	3	35	17	3	3	3	35	17

Source: Bomet County Education Office 2013

3.5 Research Instruments

The study employed questionnaires and interviews schedules as instruments of data collection.

3.5.1 Questionnaires for EARC Coordinators, headteachers and teachers (appendix II, III, IV)

Questionnaires were administered to the sampled teachers, head-teachers and EARC coordinators in the county, as indicated in Appendices II, III and VI respectively.. The questionnaires consisted of both closed and open-ended questions in order to elicit specific range of responses.

3.5.2 Interviews for learners with VI (Appendix V)

Interview questions were used on learners with VI since the study was targeting learners who had visual impairments, and could not read from normal scripts. Interviews considered the sensitivity of the matter and establishment of rapport with respondents. Interviews were useful in gathering in-depth information from learners with VI because their visual challenges, they could not read and comprehend the questions. The interview questions could be paraphrased to the learners with VI to enable them get clear information needed by the researcher.

3.6 Pilot Study

According to Orodho (2004), piloting of research instruments was to test the validity and reliability of the research instruments, the pilot study was carried out in selected population with similar characteristic as the target population. Pilot study in this case was carried out in integrated public primary school namely Kilimani Integrated School in Nairobi. Piloting of research instruments helped the researcher to evaluate and adjust the research instruments and to enable the researcher to gather information that would aid in improving reliability and validity of the research instruments, restructure and possibly eliminate any ambiguous items (Orodho, 2004).

3.6.1 Validity of the Instruments

Mugenda and Mugenda (2003) define validity as the extent to which a research instrument can measure what it is intended to measure. It is the extent to which a research instrument measures accuracy and meaningfulness of the research result. To come up with research instruments that would yield content that is valid, the researcher worked very closely with the supervisors to identify the indicators relevant to the variables being measured. This ensured that they contained all possible items that would be used to measure the variables (Mugenda & Mugenda, 2003). The questionnaire used was based on the objectives of the study.

3.6.2 Reliability of the Instruments

According to Mugenda and Mugenda (2003) reliability refers to the degree to which the research instrument consistently measures whatever it is meant to measure. The researcher ensured this by constructing a thorough conceptual framework in which the terms used in data collection instrument was analyzed and explained. The instruments used covered all important aspects of the study objectives. The research instruments were thereafter adjusted to ensure that they gave reliable information targeted in the study objectives.

3.7 Data Collection Procedures

The researcher obtained an introductory letter from Maasai Mara University, School of Education, as indicated in Appendix VII. The document was presented to National Council for Science, Technology and Innovation (NACOSTI). This is a body authorized to issue permits for research purposes. Research Authorization (Appendix VII), enabled the researcher to get a Research Permit (appendix IX).

Other authorization documents were obtained from the County Commissioner, (Appendix X) and County Director of Education, Bomet County, (Appendix XI), in order to be allowed to conduct the study in the county. The researcher booked appointments with EARC Coordinators, head teachers of integrated primary school learners with V.I and teachers teaching the children with visual impairment in integrated public primary schools. The researcher went round the sampled schools and EARC offices distributing questionnaires. The respondents were guided on how to answer questions and confidentiality was assured. A date was set to conduct interviews with the visually impaired learners. The questionnaires were collected by the researcher on the day agreed upon by the researcher and the respondents after being filled as desired.

3.8 Data Analysis

The study employed both quantitative and qualitative analysis techniques since both approaches complement each other. Acuna and Martins (2002) stated that Statistical Package for Social Sciences, SPSS, was efficient in analysing quantitative data and was used to handle data easily and because of its wide spectrum of statistical procedure purposefully designed for Social Sciences. Descriptive statistics was also used to analyze the collected data. Gay (1992) argued that in descriptive survey, data is commonly presented by use of frequency polygons, graphs, pie-charts and frequency tables. Questionnaires were edited to check the ones with incomplete, inaccurate and unreasonable data, a process called data cleaning. Data was sorted, coded and organized in tables to show percentage scores of the different study attributes. Qualitative data was analyzed by way of content analysis by trying to obtain meaning from the given information by respondents and comparing it to previous related studies on primary schools' preparedness to integrate the children with V.I into inclusive education. The results were presented thematically in line with the objectives of the study.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the results and discussions of the study. It presents the demographic information of the respondents, determinants of primary schools' preparedness in integration of inclusive education for the learners with visual impairment, influence of gender on enrolment of the children with visual impairment into inclusive education, analysis of data from the learners with VI, teachers, head teachers of the sampled primary schools and EARC centers in Bomet County.

4.2 Demographic information of the respondents

According to Kirton (2000), demographic data gives information about the population structure and it helps to create a mental picture of the different groups that exist in the whole population. Researchers get demographic information from the respondents in order to understand their characteristics and to determine if the samples are representative of the population of interest. In this study the demographic information of the respondents included getting information on their age, gender, experience and their level of education. It is noted that different gender, age groups and people with different academic qualifications have different views and perceptions on similar issues.

4.2.1 Categories of Respondents

Figure 2 presents the respondents who took part in the study. These included learners with visual impairment, teachers handling learners with visual impairments, head teachers of integrated public primary schools and EARC coordinators.

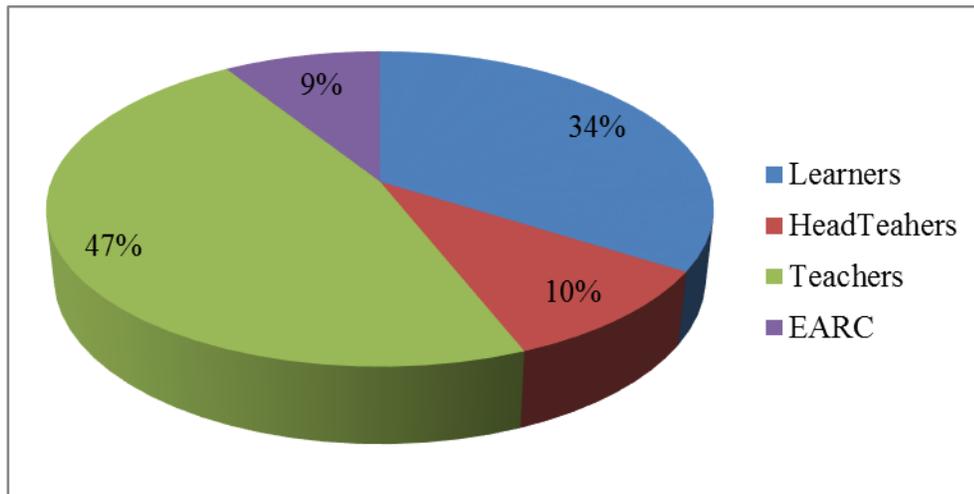


Figure 2: Category of respondents

Population of respondents indicated that learners and teachers formed the largest target population this comprised 34% and 47% respectively. Three head teachers of the integrated public primary schools and three EARC coordinators also participated in the study and they comprised 10% and 9% respectively.

4.2.2 Age of Respondent

Figure 3 presents the age categories of the teachers, head teachers and EARC coordinators.

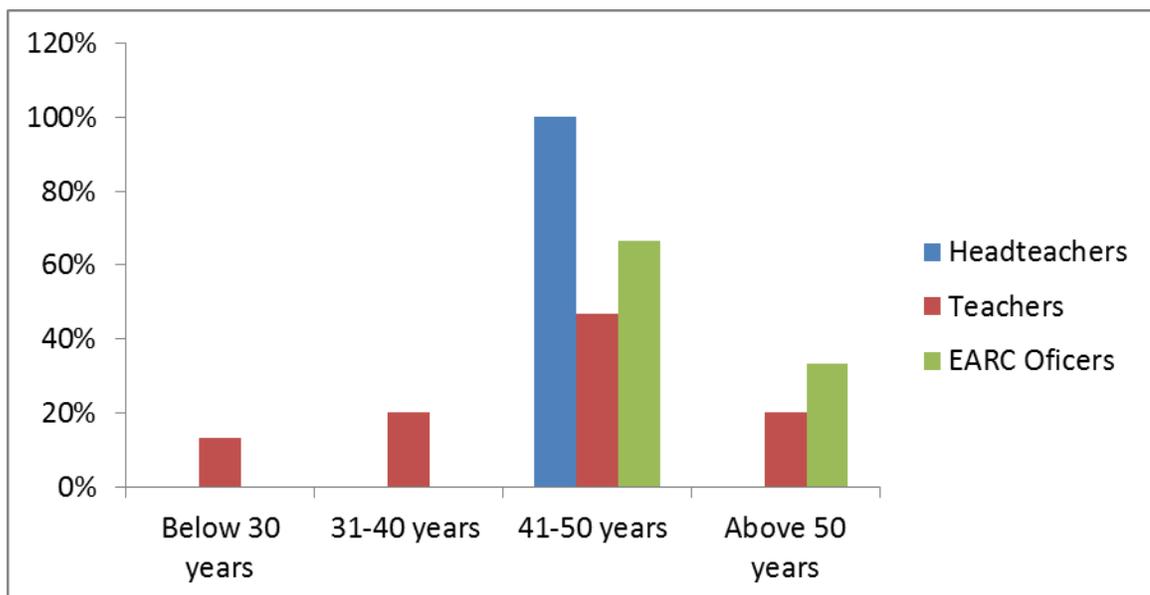


Figure 3: Age of Respondents

The findings show that a few teachers fall at the age bracket of 30 -40 years, 23.33%. While the majority fall between 41-50 years, 46.67% of teachers, 100% of head teachers and 66.7% of EARC coordinators. Those above 50 years however were also few, 20% of teachers and 33,33% of EARC coordinators fell in this category. This implies that most of the respondents are of ages between 41 and 50.

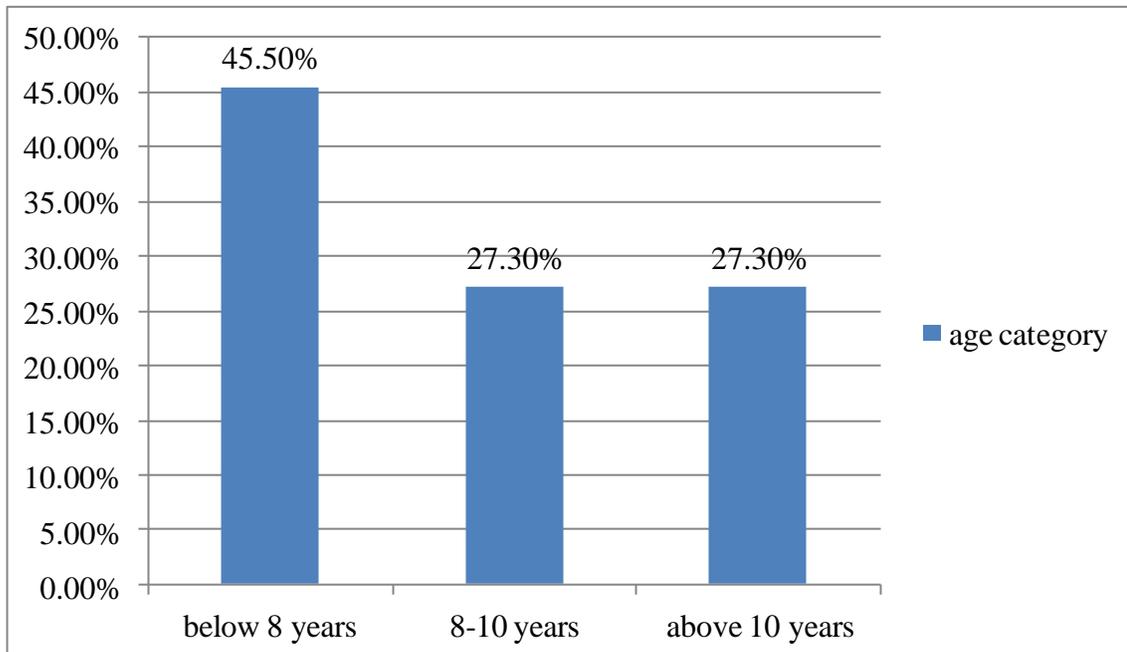


Figure 4: Age category of the pupils with VI

Figure 4 indicate that five (45.4%) of the pupils who were interviewed were below 8 years, three (27.3%) of them were between 8-10 years and the other three (27.3%) were slightly above 10 years. Though children of this age are not expected to be found in ECDE classes, this was due to the challenge of visual impairment. These children with V.I are not enrolled in school at the right age of school entry like the other children without disabilities and so they ended up being over age in their classes.

4.2.3 Gender of respondents

Gender was also important to this study as it had an effect on the perception of the provision of education and the integration of the pupils with visual limitations in the classrooms. The results obtained were summarized in figure 5 and 6

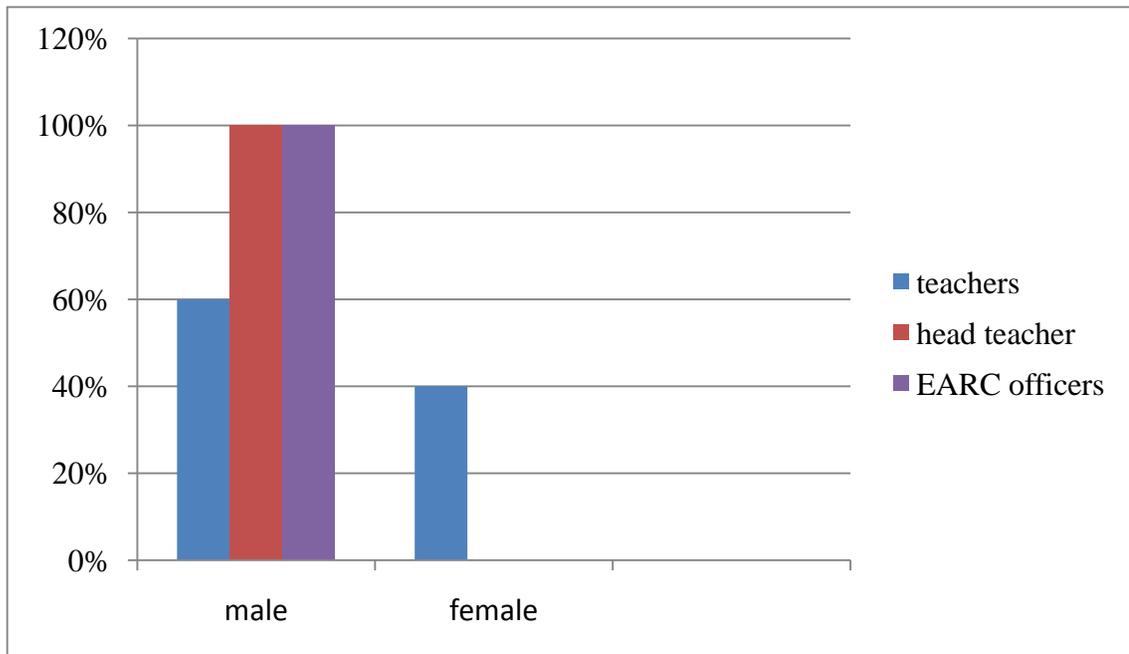


Figure 5: Gender of respondents

The results of the study presented in figure 5 show that all the integrated primary school head teachers 100 % were male. Among the teachers who participated in the study, 60% were male compared to 40% who were female. The EARC coordinators were all male. According to the statistics above, it was noted that there are more male than female both in the secretariat and among primary school teachers in the county. The results indicated that amongst the learners, five of them who were interviewed were female 45.45% and 54% were male. This information is represented in the figure 6.

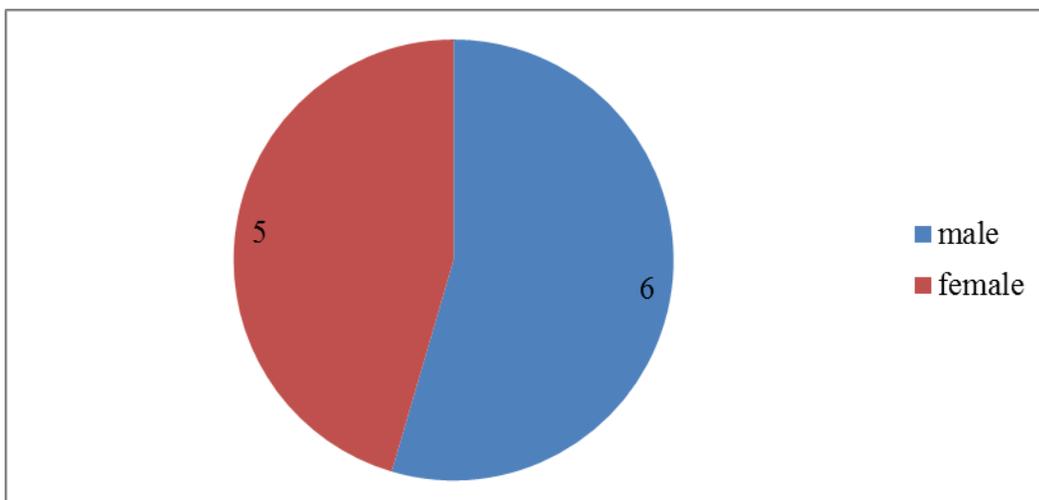


Figure 6: Gender of the pupils with VI

4.2.4 Highest Level of Education of Respondents

Education level has an impact on how the respondents handle issues and how they view their surroundings. It is noted that the perception of an individual on matters that affect him or her is influenced by the level of his academic qualifications. Figure 7 represents the findings.

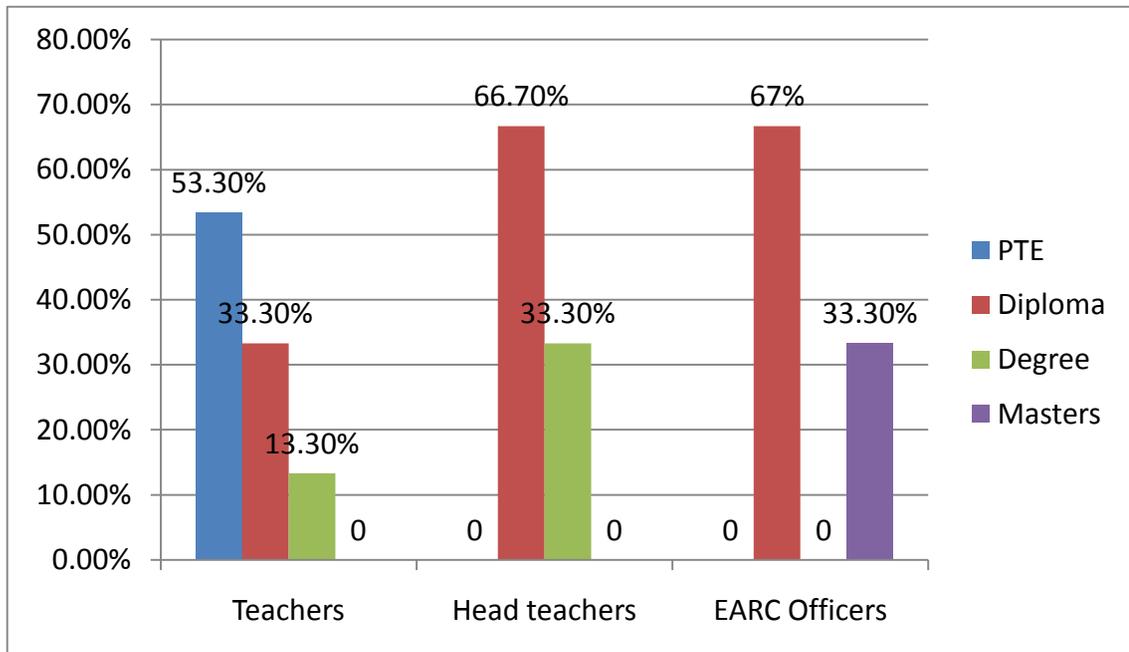


Figure 7 Highest level of education for head teachers, teachers and the EARC coordinators

From the results in figure 7, it is noted that 66.7% of the head teachers who responded were holders of Diploma and only 33.3% had attained a Degree certificate. Among the teachers majority 53.3% were holders of a PTE also called P1 certificates, 33.3% had Diploma qualifications and 13.3% were degree holders. Among the EARC officials 66.7% were holders of Diploma certificates while only one 33.3% had a Masters degree. This showed that majority of the Integrated Primary School teachers and head teachers were holders of Primary Teacher Education(PTE), certificates. However, with teachers' qualifications mentioned above, they were trained in other fields in education not Special Needs Education to teach learners with VI.

This showed that most do not have specialized training to teach children with visual impairments in the Integrated Public Primary Schools since most of them have the general training of teaching which did not specifically address the issues related to the special cases among the children. The learners were drawn from Integrated Public Primary School for the visually impaired children.

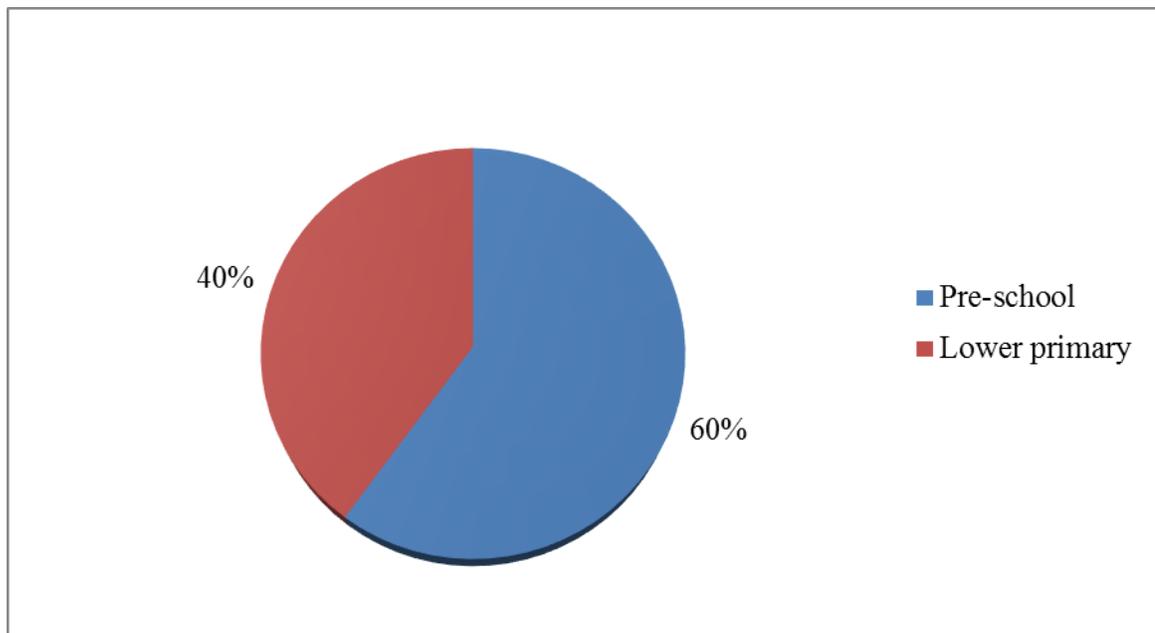


Figure 8: Enrolment of learners with V.I

The children with visual impairment who were interviewed were enrolled in ECDE centers and lower primary in the Integrated Public Primary Schools.

4.2.5 Years of Service of the Respondents

It is assumed that the years of service of the respondents has an effect on the level of understanding of concepts and other aspects in their workplace in particular, the challenges that face the children with V.I during their integration in primary schools. This study assumed that the longer the years of service in teaching learners with VI. Despite the number of years, these teachers were trained to handle children with VI from their responses. Meaning they could be having the years of service, but not effective for instance reading and writing in the braille.

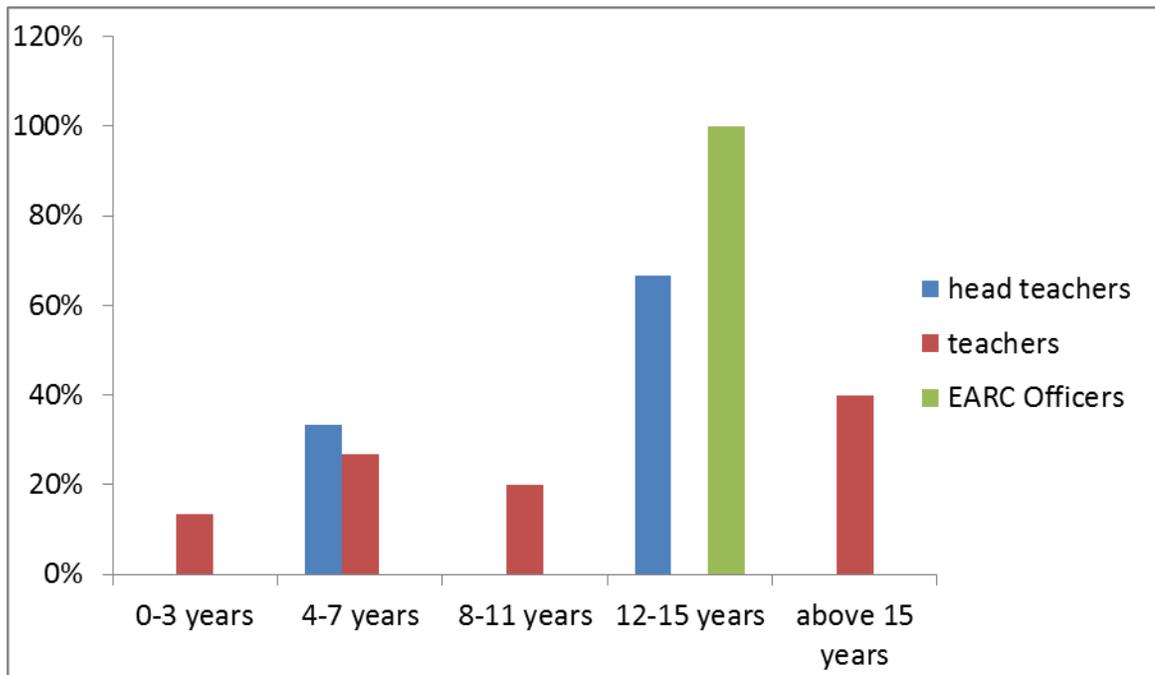


Figure 9: Years of service of respondents

It was noted that most of the head teachers who responded in the study 33.3% had served as head teachers for between 4-7 years, while the rest 66.7% had served for above 15 years. Among the teachers, majority 40% had served for over 15 years, another group of 26.7% respondents had served for 4-7 years while 20% had served for between 8-11 years and 13.3% had served 0-3 years. Among the EARC officers, 100% had worked for between 12-15 years. This shows that the Integrated Primary School head teachers and EARC coordinators had the experience to understand and handle pupils with visual impairment in their Integrated Public Primary Schools.

4.3 Determinants of Primary Schools' Preparedness to integrate learners with VI into Inclusive Education

Objective one sought to find out the determinants of primary schools' preparedness to integrated learners with VI into inclusive education in Bomet County. To test this objective, the respondent, the learners with VI, were presented with eight interview questions.

4.3.1 Pupils' Responses in regard to determinants of Primary Schools' Preparedness to Integrate learners with VI into Inclusive Education

Learners with VI were presented with interview questions regarding their teachers' skills, their orientation in the environment, administrative support they get, effects of cultural beliefs and modification of their environment. Table 3 represents their findings.

Table 3

Pupils' responses in regard to determinants of primary schools, preparedness to integrate learners with VI into inclusive education

Statement	Yes %	No %
Do your teachers teach until you understand when teaching verbally?	72.7	27.2
Do your teachers use braille machines and other supportive devices when teaching?	10	90
Able to move freely in school without being assisted by others	81.8	18.2
Do your parents and relatives think it is bad to be blind	45.5	54.5
Do head teachers and Deputy head teachers help you while you are in school	90	10
Are you able to move alone to your class, field and to the toilet	18.2	81.8

Source: Field Data

According to table 3, eight 72.7% above a third of the Pupils indicated that their teachers made sure they understood what they were being taught verbally while 27.3% of them felt that their teachers did not teach them until they understood .When asked to indicate what they like about their teachers the pupils said they liked when the teacher took time to explain to each and every pupil what they did not understand, (individual attention)

they also noted that they like when the teacher explained something twice for the whole class to remember and when the teacher rewarded them for saying the correct answers.

The learners' results further showed that their teachers were not using braille machines when teaching them or other supportive devices for their efficient learning. Most of the visually impaired learners 90% felt frustrated since they did not have skilled teachers who could use braille when teaching them. This made them not learn much since the sense of hearing was mainly used and hence forgetting most content was bound to happen. These learners could only feel but could not see the colours, shapes, and many other things associated to the development of learning process. Another 10% felt that there were enough supportive devices at school. When asked to indicate the factors that have been frustrating them when learning, majority of the learners with visual impairment noted that they had been frustrated by other children as they grew up and also when they joined with them back at home since others can have fun of them. They cited negative attitude towards them as the most frustrating aspect. When children with VI were asked whether they got adequate administrative support while they are in school, 90% agreed that the head teachers assisted them and only 10% of them did not feel that they were given adequate administrative support.

Most respondents 81% were not able to move alone to their class, field and to the toilet while 19% were able to. This implied that the children with visual impairment have a big challenge when moving around the school, indicating that there is poor orientation for the learners with VI. Teachers who do not have adequate skills to teach using braille end up not developing the desired skills for the learners with V.I and hence they gain less. These challenges among many gave indications that these integrating schools are not adequately prepared to carry out inclusive education for the learners with V.I.

4.3.2 The Perception of Head teachers, Teachers and EARC Coordinators on the Determinants of Primary Schools' Preparedness to integrate learners with VI into Inclusive Education

Table 4 represents the results of teachers, head teachers and EARC coordinators on determinants of primary schools' preparedness in integrating learners with V.I into inclusive education. The results were analyzed using percentages.

Table 4

Percentage responses from the head teachers, teachers and EARC co-ordinators on the determinants of primary schools' preparedness to integrate the learners with VI into inclusive education

Statement	SA%	A%	D%	SD%
1. Teachers have insufficient skills to handle the learners with Visual Impairment	100	0	0	0
2. Teachers have not attended training on special Needs Education	0	100	0	0
3. Teachers able to teach learners the Braille skills	0	38.1	69.9	0
4. Teachers were not trained in college on Special Needs Education	0	66.7	33.3	0
5. Teachers are able to identify learners with visual impairment	0	66.7	33.3	0
6. Teachers are able to teach the learners with visually impaired with the other non – blind learners effectively.	0	38.1	69.1	0

Source: Field Data

The first objective sought to analyze determinants of primary schools' preparedness to integrate learners with VI into inclusive education. The responses from the respondents are presented in table 4. The findings showed that teachers have insufficient skills to handle the learners with visual impairment, the results indicated that all the teachers, 100%, all the head teacher, 100%, and all the EARC coordinators 100% agreed that

teachers teaching in integrated public primary schools do not have adequate skills to teach the visually impaired children. They are not trained nor inducted, they teach learners with VI like other non-blind learners without any special skill and knowledge to meet their needs.

When asked whether they were trained while undergoing PTE courses in Primary Teachers' Training Colleges, 66.7% of the respondents said that teachers were trained in special needs education while they were in college though the knowledge gained then is not sufficient to effectively handle the learners with VI. The respondents also pointed out that no other training has been conducted by the Ministry of Education to enhance the integration of visually impaired children, 33.7% stated that they were not trained at all while they were undergoing their PTE courses in college. Most respondents, 69.9% indicated that teachers did not have braille skills needed to teach the learners with visual impairments while 33.3% said that there were a few teachers able to teach braille skills to the learners with VI. This implied that these learners did not gain much since they could not use their sense of touch through the use of braille machines.

Another 69.9% cited that teachers encountered a big challenge in meeting the diverse individual needs of the pupils with VI in the integrated classes, 33.3% did not experience much problems. This generally shows that the teachers have a problem coping with the challenges of teaching the pupils with visual impairment in the Integrated Public Primary School. This could be attributed to the lack of appropriate training of the teachers in dealing with children with visual impairment.

The teachers said that sometimes when they are busy, the pupils with visual impairment would get scared and could not participate well in class. These results agreed with those of Okumu (2005) who stressed that there is need for special education trained teachers to help the learners with visual impairment to develop accurate Braille skills.

Acute shortage of specialized teachers to handle learners with visual impairment may mean that general literacy for the visually challenged persons will progressively decline. Learners with visual impairment require extra time allocation for instruction in both writing and reading Braille.

According to KISE (2007), the government of Kenya has established training for teachers on Special Needs Education at the Kenya Institute of Special Education, KISE. UNESCO manual (2010) indicate that few teachers have however been trained to be able to teach learners with VI effectively. The few trained teachers also have been equipped with diverse skills to teach learners with different disabilities not only the learners with VI. These teachers have not necessarily been placed to teach in primary schools that offer integration of the learners with visual impairment; they have been posted in various public primary schools. They do not possess the proper skills on braille which is essential in teaching learners with VI. They may be able to identify the learners with VI since they depict different behavior from other children in class. KISE (1998) noted that learners with VI not only require skills geared towards academic achievements but also the need for teachers to teach them other skills like orientation of the environment, mobility, daily living activities that enable them live independently and listening skills that are very important in acquiring information that is registered through the ear.

The findings however did not agree with these facts, the indication was that the teachers are ill-equipped and therefore they cannot teach them effectively with the normal children in the same classroom. This implies that the learners with VI may have minimal achievements in the integration programmes.

4.3.3 The extent to which primary schools are prepared to integrate learners with VI into inclusive education.

Table 5

Percentage responses from the teachers, head teachers and EARC on the extent of primary schools' preparedness to integrate learners with VI into inclusive education

STATEMENT	SA %	A %	D %	SD%
Inadequate assistive devices for learners with VI.	0	100	0	0
School environment not adapted to suit learners with VI.	0	100	0	0
School structures and facilities are friendly to the learners with VI	0	30	70	0
Negative attitude towards the learners with VI affecting their learning	33.3	57.8	8.9	0
Cultural beliefs affects the psychology of the learners with VI	33.3	62.3	4.4	0
Inadequate administrative support for the learners with VI	60	3.3	36.7	0
Nature of the curriculum is examination oriented	100	0	0	0
Ordinary learners able to assist learners with VI in the school	0	37.8	62.2	0
Learners with VI able to identify places in the school on their own	8.9	22.2	68.9	0

Source: Field Data

The second objective of the study sought to analyze the extent of primary schools' preparedness to integrate the learners with VI into inclusive education. The results presented in table 5, showed that all the respondents, 100% said that lack of equipment and teaching materials was a major problem encountered when teaching the integrated classes with pupils having visual impairment. The result also showed that the materials available in the schools are not adequate or even available to support the actual learning process of the pupils.

This shows that most of the schools are not equipped with the resources required for the integration process. The learners with VI were taught like the other learners without disabilities, it meant therefore that the learners with VI may not gain much in academics since they were disadvantaged with the lack of these very essential supportive devices. They indicated that there were no braille machines, stylus pens, braille papers and the white canes. This affected the preparedness of the school for the integration process

It was also noted from table 5 that the schools environment was not supportive to ensure implementation of the programmes with a response of 100% indicating that the school environment was not friendly at all to the learners with visual impairment. The schools lacked proper structures like pavement to help ease movement for learners with VI when using white canes. EARC coordinators being the supervisors on behalf of the Ministry of Education on the ground felt that the school environments were not well adapted to suit the learners with VI. The researcher observed the absence of pavements within the school, therefore it was a hindrance for easy mobility by learners with V.I. The playing fields had very tall grass and generally poor layout of school structures.

On the friendliness of school structures and facilities, the head teachers agreed that there was a challenge in the school structures and facilities since the environment had not been modified to suit the needs of the learners with VI, they felt that there was no problem with the layout of the school structures and facilities. This clearly shows achievements by learners with VI in the integrated public primary Schools may be attributed highly to the poor learning environment and poor structures and facilities. The researcher observed that the environment in which the children with visual impairment children operated was not friendly in that in one of the schools the field was covered with very tall grass which made it very difficult for the learners with VI to move around easily using the white canes. This was a dangerous indicator especially to learners with VI because it could lead

to accidents and injuries. It was noted by 33.3% of the respondents strongly agreed and 57.7% agreed that there was negative attitude towards the learners with visual impairment in the society thus affecting their learning and 8.9% of the respondents did not agree that there is a negative attitude towards these learners they argued that the visually impaired are seen by society like any other children. Most of the respondents 60% strongly agreed that there was inadequate administrative support in the school for the children with visual impairment, 3.3% agreed and 36.7% disagreed to the fact since the school administrators too did not have any specialized training on handling learners with VI. As indicated, on the assistance given to the children with VI most teachers felt that the assistance accorded to the children with VI was not enough as they saw that that the learners with VI were assisted adequately by the other learners.

Most respondents 68.9% cited that learners with visual impairment were not properly orientated in the school environment which clearly shows that the learners with VI cannot move from one place to another on their own. A few others 8.9% strongly agreed to this fact while 22.2% agreed that the learners with visual impairment were properly orientated in the school environment. This clearly indicates that the learners with visual impairment have difficulties moving about in school, it also meant that the learners with VI had difficulties in moving about both in school and outside the school. On cultural beliefs affecting the psychology 33.3% strongly attributed that this affected the psychology of the VIC since these children were aware of the fact that they are different from other learners in the school and 62.3% agreed while 4.4% disagreed with this fact these respondents felt that the learners with VI were never perceived negatively by the society.

All the respondents, 100% agreed that, both learners without VI and the learners with visual impairment followed the same curriculum. It was established that schools which have integrated learners with VI used the ordinary curriculum meant for normal learners.

The ministry of Education has not reviewed the curriculum that enhances the integration process of learners with visual impairments. This shows that most of these schools have not adapted a curriculum that enhances the integration process of the learners with visual impairment hence this was noted to be another factor affecting the preparedness of the Integrated Public Primary schools for the learners with visual impairment. The current curriculum does not favor integration because the curriculum used in most of the integrated primary schools is tailored to favor the normal children.

The researcher observed that learners with visual impairment had a challenge since there were no teachers who could transcribe and interpret materials from print to braille. Hence it was not possible for pupils to get somebody who would give them instructions on specialized training on braille because there are few itinerant teachers, these are teachers who have been trained to teach the learners with VI, in the entire county. They kept rotating from one integrated school to another. It was found that most learners lack proper role models and they were not motivated towards the learning process in school. According to Gross (2005), teaching resources and materials as well as school facilities are part of the contributing factors in supporting inclusive education. When a school is well equipped with the basic teaching and learning materials, the teacher's job is made easier and the learning outcomes of all learners will improve greatly (Gross, 1996)

KISE (1998), stated that learners with VI need textbooks that have been transcribed into braille because they cannot share textbooks not transcribed with other learners in class during lessons. They also needed tactile maps and diagrams in order to follow lessons in class. Abacus is used for computing numbers, braille machines for taking notes and white canes for mobility around the school (KISE, 1998).

Rukwaro and Kimani (2007) further informed this study that the teachers should ensure that the facilities and structures within the environment should be adapted in such a way that there is safety within for the learners with VI. Dangerous situations must be anticipated before they cause danger. Classroom set up should not be changed often and if changed the learners with VI should be given proper orientation. The learners with VI also should be notified of danger spots in the school compound. These enable them to move freely with minimal assistance (Rukwaro & Kimani,2007).

Gillies (2002) and Whyte, (2005) said that if the community has positive attitudes in providing the best education for all learners, then inclusion will be more likely to succeed. That means valuing and interacting with children with varying learning needs (Gillies, 2002; Whyte, 2005). A report by UNESCO (2010) also noted that a major factor for achieving equal opportunities in education for all the challenged children was the need for change of public attitude towards the challenged from negative to positive reflection. Cultural beliefs on the perception of learners with VI by the society need to change so that acceptance and understanding are embraced.

On curriculum, KISE (1993) stated that children in programmes for learners with VI follow the regular 8-4-4 syllabus taught to all children in Kenya. Their curriculum should be adapted and modified for them to gain meaningful education since the learners with VI are mainly taught to read and write using braille machines with the help of the sense of touch. These results do not agreed with Mentis; Quinn, Smith and Ryba (2005) who emphasized that in order to meet the academic needs of the learners, teachers have to provide learning/teaching materials, strategies and modified curriculum which are accommodative to all learners in an inclusive classroom.

These results do not also agree with KISE (1997), that they should be given proper orientation of the school environment in order for them to move easily within the school compound with minimal assistance from others. (KISE 1997). This clearly indicates that the learners with visual impairment have difficulties moving about in school environment and therefore this meant that these learners depended a lot on the other learners. The findings of the objectives indicated that a lot needed to be done to prepare public primary schools to integrate learners with VI in inclusive education. The findings did not agree totally with put forward arguments as quoted in the study. This indicated that the learners with VI do not learn effectively as stipulated in the policy.

4.4 Gender influence on enrolment of learners with visual impairments

Table 6 analyses whether gender was an influence in enrolment of the learners with V.I

Table 6

Gender influence on the enrollment of VI learners

	Teachers		H/Teachers		EARC	
	<i>Frequency</i>	<i>Percentage</i>	<i>Frequency</i>	<i>Percentage</i>	<i>Frequency</i>	<i>Percentage</i>
Yes	5	33.3	1	33.3	1	33.3
No	10	66.7	2	66.7	2	66.7

Source: Field Data

The third objective sought to analyze the gender influence on the enrollment of learners with visual impairment. Table 4.4 analyzes gender influence on enrolment. Most of the respondents as indicated in table 6, show that 66.7% of the respondents indicated that gender do not affect the enrolment of pupils with visual impairments since all children have equal opportunities to access education. However, 33.3% said that gender does affect their enrollment depending on the society the child came from.

One of the head teachers and one EARC coordinator also agreed that gender affected the enrollment of learners with visual impairment while two from each group of respondents thought otherwise. However, even with such perception, data collected reviewed otherwise

Table 7 gives comparative analysis of enrolment of learners with VI over a period of five years.

Table 7

Enrolment of learners with VI based on gender

Year	Number of Boys	Number of Girls	Total
2010	7	5	12
2011	10	8	18
2012	8	7	15
2013	8	6	14
2014	10	7	17

Source: Field Data

To further emphasize that gender did not influence enrolment, objective three compared enrolment of learners with VI over a period of five years from the year 2010-2014. The findings were presented in table 7, it was noted that both boys and girls were enrolled each year. In the year 2010, there were 7 boys and 5 girls enrolled in integrated primary schools. In 2011 the number of boys was 10 while the girls were 8. The following year 2012 there were 8 boys and 7 girls, in 2013 there were 8 boys and 6 girls and in the year 2014 the number of boys rose to 10 while girls were 7. From the trends of enrolment above the study concluded that there was no great disparity in the enrolment of either boys or girls. however the number of girls over the years was slightly lower but by a small margin.

According to the Government of Kenya, Sessional Paper No. 1(2005) the government aims at paying attention to gender of the learners with VI. The government policy state that learners with VI should not be excluded in mainstreaming in education. The government declared Free Primary Education, FPE, in 2003 for all children regardless of their disabilities. The findings agreed with this policy since it was found out that gender of the learners with VI did not affect their enrolment into inclusive education.

4.5 Comparison of responses on primary schools preparedness to integrate the VI into inclusive education

From the analysis done, in the first objective, the respondents indicated the following findings: most of the respondents agreed that public primary schools that have integrated children with VI have teachers with insufficient skills to teach them. This is attributed to the fact that teachers have not been given proper training on important skills. Most of the teachers cited that they have not been given training in Special Needs Education, SNE. They also observed that while undergoing their Primary Teacher Education, PTE course in various primary teachers' colleges, they did not train on SNE. This fact was confirmed by 100% the respondents. The finding also showed that most teachers did not know how to use the inadequate braille machine necessary to teach, about 90% of the respondents confirmed this while about 10% said they could at least teach braille skills though not competently. The teachers however said they can identify learners with VI, 66.7 % of the respondents confirmed that while the teacher is teaching in class he or she can be able to identify learners who are visually impaired by observing their behaviour.

The findings further indicated that most teachers cannot teach learners with visual impairment together with the normal children effectively, 69.1% of the respondents indicated as in figure 4.

The government of Kenya should look seriously into the above challenges by ensuring that the teachers are trained adequately to be able to implement the integration of inclusive education for learners with VI.

The second objective analyzed the extent of primary schools' preparedness to integrate the learners with VI into inclusive education. There were several aspects which included; lack of assistive devices to be used by the learners with VI, the environment was not well adopted to suit them at all, structures and facilities were very unfriendly. There was also negative attitude towards these learners as well as poor cultural beliefs which affected their learning and progress. The findings also cited lack of administrative support attested by all respondents. The curriculum being used does not favour the learners with VI since it is meant to be used by the normal learners and not reviewed and adapted to meet the needs of learners with visual impairments. Orientation of the environment was not properly done since the learners with VI needed a lot of assistance from the other learners. These learners therefore were not able to move on their own from one place to another while in the school. The other normal learners did not assist the children with VI as desired.

Finally the third objective on gender, the findings showed that gender of the learners with VI did not affect their enrolment in school since most respondents indicated that all children had equal rights to access education. Gender was not seen as a factor affecting their enrolment in school. A small percentage of the respondents however were of the contrary opinions.

4.6 Suggestions on Strategies for Integration of Inclusive Education for the learners with VI

When the respondents were asked to suggest strategies of how best to integrate inclusive education for the visually impaired children, they gave the following suggestions as shown and analyzed in figure 10.

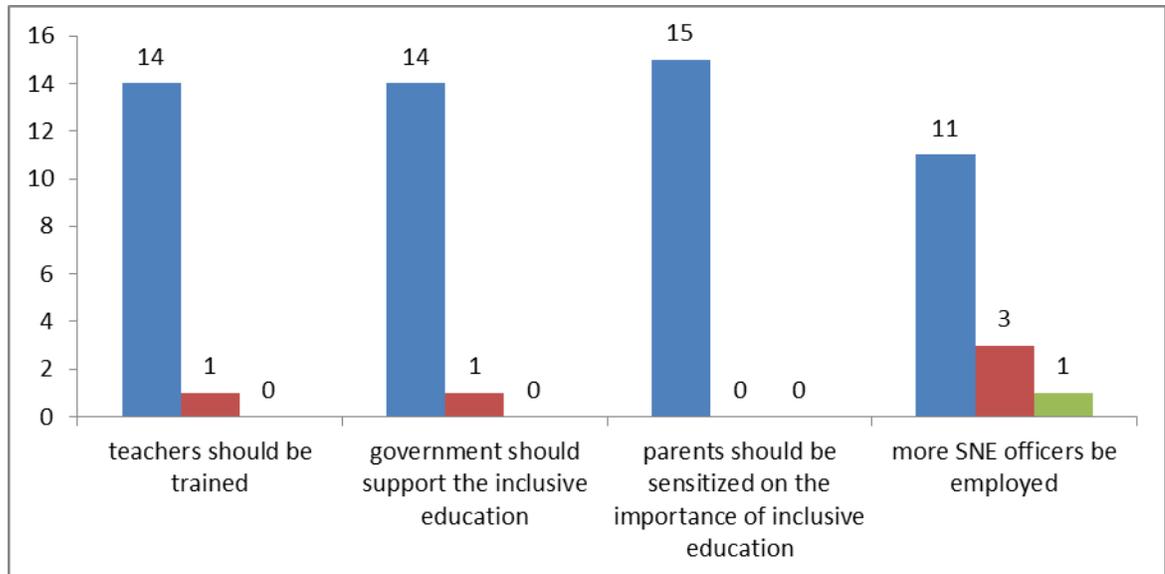


Figure 10 Strategies to improve inclusive education for children with VI

The findings showed that the respondents felt that more teachers needed to be trained on skills that enable them to teach the learners with visual impairment effectively as shown in figure 10. 14 (93.3%) of the teachers agreed with this while 1 (6.6%) was not sure of this fact. They also felt that the government should give more support to enhance implementation of inclusive education for the learners with VI, in terms of providing more funds per child and more supervisory services. Parents play an important role in the education of their children and therefore they should be sensitized in the roles they play in the education of their children with VI. They should also support government's effort by providing Specialized equipment like braille papers, brailing machines, white canes and stylus among others were lacking in most classes and therefore more of these supportive devices should be provided for meaningful learning.

The participants revealed that since children who are visually impaired learn mainly through the sense of touch, it was very difficult for them to learn all the subjects taught without the use of braille machines. Therefore there is need for the provision of supportive devices at all levels of learning.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the findings of the study, conclusions and recommendations. It also gives suggestions for further studies.

5.2 Summary

Learners with VI have been placed in the regular public classrooms in areas within their neighborhoods. Inclusive Education meant that the specific needs of learners with VI were catered for despite being in the same classroom with the others learners without VI. This study evaluated primary schools' preparedness to integrate learners with visual impairment into inclusive education in Bomet County, Kenya. Basing on the fact that the Kenya Government has recognized the importance of inclusive education for learners with visual impairments. Several programmes and policies were formulated which aimed at providing Education for All, EFA and Millennium Development Goal, MDGs. The government have also come up with programmes that guide on the implementation of Special Needs Education in the country. Unfortunately, inclusive education for the learners with visual impairment children has faced a lot of challenges in the education sector.

The objectives of the study were: to analyze determinants of primary schools' preparedness to integrate the learners with visual impairment into inclusive education, to determine the extent of primary schools' preparedness to integrate the learners visual impairment into inclusive education and to determine if the gender of the learners with visual impairment influence their enrolment into inclusive education in public primary schools.

To achieve these objectives data was collected using questionnaires for teachers, head teachers and EARC coordinators and interview schedule for the learners with visual impairment. Data was collected from a sample of 35 respondents. Sampling was done using a combination of purposive sampling and multi-stage purposive sampling. Both qualitative and quantitative data was collected and analyzed using frequency distribution tables, graphs and pie-charts.

The results showed that 90% of the respondents agreed that there are many challenges facing the implementation of inclusive education of the visually impaired learners as indicated in tables 3, 4 and 5. These challenges included lack of adequately trained teachers to teach the learners with visual challenge in public primary schools today, lack of supportive devices to facilitate effective inclusive education for learners with VI, the environments were not friendly to the learners with visual impairment and this made it difficult for mobility and proper orientation of the children with visual impairments within the schools. This reason meant that learners with VI needed a lot of assistance from the other “normal” learners. Gender of learners with visual impairment did not influence their enrolment in regular public primary schools. Most respondents indicated that both boys and girls were enrolled almost equally in school. As indicated in table 6 and 7 the findings showed that 66.7% of the respondents agreed that gender did not affect the enrolment of learners with VI.

Lastly, as indicated in figure 10, there are several suggestions put forward, 93.3% of the respondents which included the following; training of more teachers in Special Education and provision of specialized equipment be available for use by both the teachers and learners with visual impairments for effective implementation of inclusive education, the Kenya government to allocate more funding to meet the cost of implementation of inclusive education for the children with VI,

parents needed a lot of sensitization on the importance of educating children with VI and lastly more EARC coordinators be employed to oversee effective inclusive education programme.

5.3 Conclusion

The study considered the preparedness of the public primary school in the integration of pupils with visual impairment in Bomet County. The following conclusions were made

- i. Most of the respondents indicated that those handling learners with V.I lacked the know how since they have not been equipped with the necessary skills. Proper co-ordination of stakeholders in provision of physical and monitoring resources has an influence on the development of skills for teachers teaching learners with visual impairment.
- ii. The results indicated that lack of resources and supportive materials like braille is a major hindrance to effective teaching and learning of the visually impaired learners. There is a pressing need of providing relevant and adequate braille materials for learners with visual impairments. Learners cannot learn effectively in braille unless they are provided with resources and materials that fit their needs and professionals who have the skills on braille. Lack of funds will mean that implementation is at a stand- still especially in terms of resource provision. The government should aspire to provide teaching learning resources and supportive devices and should play a vital role in the whole process of providing education for the learners with visual impairment.
- iii. There was no much disparity in the enrolment of learners with visual impairment per on the basis of gender as both girls and boys were enrolled in public primary schools.

5.4 Recommendations

From the findings of the study, the researcher recommends that:

- (i) The government of Kenya should allocate more funds to support Special Needs Education in this case inclusive education for the learners with visual impairments.
- (ii) More teachers should be trained on SNE to enable them teach the children with visual impairments effectively in integrated public primary schools.
- (iii) The government should ensure that all policies in place have implementation guidelines that would ensure the actualization of the strategies set.
- (iv) Distribution of available trained teachers in the schools that integrate children with V.I
- (v) Sensitize the parents on the importance enrolling children with visual impairment in public primary schools.

5.5 Suggestions for further Research

- (i) Further study to be carried out to cover the whole country on inclusive education for the children with VI.
- (ii) Further study to be carried out on other forms of impairments on inclusive education in Bomet County.
- (iii) Further studies to be carried out to cover other impairments in the whole country on inclusive education.
- (iv) Perception of EARC coordinators, head teachers and teachers on the integration of the children with VI in inclusive education.

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APPENDICES

APPENDIX I: INTRODUCTORY LETTER

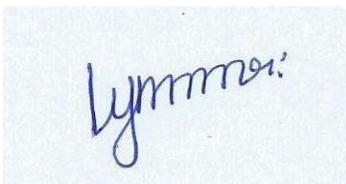
Dear Respondents,

RE: MASTERS OF EDUCATION (EARLY CHILDHOOD AND PRIMARY EDUCATION) RESEARCH WORK.

I am a graduate student at Maasai Mara University currently pursuing a Masters degree in Early Childhood and Primary Education. Currently I am carrying out a study on Primary Schools' preparedness to integrate the visually impaired learners into inclusive education in Bomet County, Kenya.

I kindly request you to fill the attached questionnaire or interview, meant to gather data necessary for my study. Please respond appropriately by ticking in the brackets or filling in the spaces provided. The findings of this study will act as an eye-opener to challenges faced in integration of the visually impaired learners. Your responses will be treated with high **confidentiality**.

Yours faithfully,

A rectangular box containing a handwritten signature in blue ink that reads "Lynner".

LYNNER SOPHIE MAEMBA.

EM06/0023/2009.

APPENDIX II – TEACHERS’ QUESTIONNAIRE

This questionnaire has been developed for the purpose of academic study. You have been selected to participate in the study by helping fill in it. Feel free to fill and ask clarification on any item you do not understand. Please supply correct information honestly in the spaces provided by either placing a tick in the brackets where provided or writing it down.

SECTION A: Background Information

1. Indicate your gender Male Female
2. Age category Below 30 31-40 41-50 Above 50
3. How many years have you taught?
0 – 3 4 - 7 8 – 11 12 – 15 Over 15
4. What responsibility do you have in the school?
Class Teacher Senior Teacher Exam Teacher
Guidance & Counselling Others (Specify) _____
5. What classes do you teach? ECD Class Lower Primary
6. What’s your level of education?
P1 Diploma Degree Masters
7. Are you trained in Special Needs Education?
Yes No Specify the area _____
If yes indicate the level _____

SECTION B: Determinants of School Preparedness

Rate the following factors using strongly agree (SA), Agree (A), Undecided (U), Disagree (D) and Strongly Disagree (SD)

	Item	Strongly Agree (5)	Agree (4)	Undecided (3)	Disagree (2)	Strongly Disagree (1)
8.	Teachers have insufficient skills to handle the learners with visual impairment.					
9.	I have attended training on special needs education in inclusive education.					
10.	I am able to teach learners the Braille skills.					
11.	I was trained in college on special needs education.					
12.	I am able to identify learners with visual impairment.					
13.	I am able to teach the learners with visual impairment with the other non blind learners effectively.					
14.	There are inadequate assistive devices for the learners with visual impairment in the school.					
15.	The school environment is not adapted to suit learners with visual impairments					
16.	School structures and facilities are friendly to the learners with VI.					

17	There is negative attitude towards the learners with visual impairment in the school therefore affecting their learning.					
18	Cultural Beliefs affects the psychology of the learners with VI.					
19	There is inadequate administrative support in the school for the learners with VI					
20	Nature of the curriculum is examination oriented and therefore it does not favour learner with VI.					
21	The Ordinary learners are able to assist the learners with VI in the school.					
22	Learners with VI are able to identify various places in the school on their own.					

SECTION C: Gender Influence

23. How many learners with VI do you have in the class? _____

No. of Boys _____ No. of Girls _____

24. In your opinion do you think gender of the child (whether boy or girl) affect their enrolment in school? YES NO

If YES give reasons _____

SECTION D: Strategies to improve inclusive education for learners with visual impairment

25. What strategies should be put in place to ensure successful implementation of inclusive education for learner's with visual impairment in Bomet County?

(i).....

Thank you for your contribution.

APPENDIX III: QUESTIONNAIRE FOR HEADTEACHERS

This questionnaire has been developed for the purpose of academic study. You have been selected to participate in the study by helping fill in it. Feel free to fill and ask clarification on any item you do not understand. Please supply correct information honestly in the spaces provided by either placing a tick in the brackets where provided or writing it down.

SECTION A: Background Information

1. Indicate your gender Male Female
2. Age category Below 30 31-40 41-50 Above 50
3. How many years have you taught in primary school?
0 – 3 4 - 7 8 – 11 12 – 15 Over 15
4. How long have you been a head teacher?
0 – 3 4 - 7 8 – 11 12 – 15 Over 15
5. What is your highest education level?
P1 Diploma Degree Masters
6. What is the School Population?
(i) Pupils Population _____
(ii) Teachers Population _____
7. Do you have any pupils with special needs in the school?
8. Yes No

If yes specify the category and total number for each category

SECTION B: Determinants of School Preparedness

Rate the following factors using strongly agree (SA), Agree (A), Undecided (U), Disagree (D) and Strongly Disagree (SD)

	Item	Strongly Agree (SA)	Agree (A)	Undecided (U)	Disagree (D)	Strongly Disagree (SD)
8.	Teachers have insufficient skills to handle the learners with VI.					
9.	Teachers have attended training on special needs education in inclusive education.					
10.	Teachers are able to teach learners the Braille skills.					
11.	Teachers were trained in college on special needs education.					
12.	Teachers are able to identify learners with visual impairment.					
13.	Teachers are able to teach the learners with VI with the other non blind learners effectively.					
14.	There are inadequate assistive devices for the learners with VI in the school.					
15.	The school environment is not adapted to suit the learners with visual impairment					
16.	School structures and					

	facilities are friendly to the learners with VI.					
17.	There is negative attitude towards learners with VI in the school therefore affecting their learning.					
18.	Cultural Beliefs affects the psychology of the learners with VI.					
19.	There is inadequate administrative support in the school for the learners with VI.					
20.	Nature of the curriculum is examination oriented and therefore it does not favour the learners with VI.					
21.	The Ordinary learners are able to assist the learners with VI in the school.					
22.	Learners with VI are able to identify various places in the school on their own.					

SECTION C: Gender Influence

23. What is the enrolment of the learners visual impairment in your school

Number of Boys _____ Number of Girls _____

24. Please fill the table below on the enrolment by gender of the learners with visual impairment.

Year	Number of Boys	Number of Girls	Total
2010			
2011			
2012			
2013			
2014			

25. In your opinion do you think gender of the child affect their enrolment in inclusive education for the visually impaired learners? Yes No

If yes give reasons _____

SECTION D: Strategies to improve inclusive education for learners with visual impairment

26. What strategies should be put in place to ensure successful implementation of inclusive education for learners with visual impairment in Bomet County?

- (i).....
- (ii).....
- (iii).....
- (iv).....
- (v).....

Thank you for your contribution.

APPENDIX IV: QUESTIONNAIRE FOR EARC COORDINATORS

This questionnaire has been developed for the purpose of academic study. You have been selected to participate in the study by helping fill in it. Feel free to fill and ask clarification on any item you do not understand. Please supply correct information honestly in the spaces provided by either placing a tick in the brackets where provided or writing it down.

SECTION A: Background Information

1. Gender Male Female
2. Age Category
 Below 30 31 – 40 41 – 50 above 50
3. Highest Education Level
 Certificate Diploma Degree Masters PHD
4. Service years in the EARC Center
 Below 2 years 2 – 5 years 5 – 10 years above 10 years

SECTION B: Determinants of Primary Schools’ Preparedness

Rate the following factors using strongly agree (SA), Agree (A), Undecided (U), Disagree (D) and Strongly Disagree (SD)

	Item	Strongly Agree (SA)	Agree (A)	Undecided (U)	Disagree (D)	Strongly Disagree (SD)
5.	Teachers have insufficient skills to handle the learners with VI.					
6.	Teachers have attended training on special needs education in inclusive education.					
7.	Teachers are able to teach learners the Braille skills.					
8.	Teachers were trained in college on special needs education.					
9.	Teachers are able to identify learners with					

	visual impairment.					
10	Teachers are able to teach the learners with VI together with the other non blind learners effectively.					
11	There are inadequate assistive devices for the learners with VI in the school.					
12	The school environment is not adapted to suit learners with visual impairment					
13	School structures and facilities are friendly to the learners with VI.					
14	There is negative attitude towards the learners with VI in the school therefore affecting their learning.					
15	Cultural Beliefs affects the psychology of learners with visual impairment.					
16	There is inadequate administrative support in the school for learners with visual impairment					
17	Nature of the curriculum is examination oriented and therefore it does not favour learners with visual impairment					
18	The Ordinary learners are able to assist the learners with VI in the school.					

19	Learners with VI are able to identify various places in the school on their own.					
----	--	--	--	--	--	--

SECTION C: Gender Influence

20. What is the population of the learners with VI undergoing inclusive education in your county: _____

Number of Boys _____ Number of Girls _____

21. Kindly fill the table below on the enrolment of learners with visual impairment into inclusive education by gender in Bomet County.

Year	Number of Boys	Number of Girls	Total
2010			
2011			
2012			
2013			
2014			

22. In your opinion do you think the gender of a child (whether boy or girl) affect their enrolment into inclusive education? Yes No

If yes give reasons _____

SECTION D: Strategies to improve inclusive education for learners with visual impairment

23. What strategies should be put in place to ensure successful implementation of inclusive education for leaners with visual impairment in Bomet County?

- (i).....
- (ii).....
- (iii).....

Thank you for your contribution.

**APPENDIX V: INTERVIEW SCHEDULE FOR LEARNERS WITH VISUAL
IMPAIRMENT**

This questionnaire has been developed for the purpose of academic study. You have been selected to participate in the study by helping fill in it. Feel free to fill and ask clarification on any item you do not understand. Please supply correct information honestly in the spaces provided by either placing a tick in the brackets where provided or writing it down.

SECTION A: Background information.

1. Age category
Below 8 8-10 above 10
2. Gender
Male Female
3. Class

SECTION B: Determinants of Primary schools' preparedness

4. Do your teachers teach you until you understand when teaching you verbally?
Yes No
If no give reasons _____
5. Do your teachers use braille machine and other supportive devices when teaching you? Yes No
6. Do you have braille machines and white canes that you use?
Yes No
7. Are you able to move freely in the school without being assisted by others?
Yes No
8. Do your parents and relatives think it is bad to be blind? Yes No
If yes explain _____
9. Do the head teacher and deputy head teacher help you while you are in school?
Yes No
10. Do the other children who are not blind help you to move around in the school?
Yes No
11. Are you able to move alone to your class, to the field and to the toilet without getting lost or hurt? Yes No

Thank you for your contribution.

APPENDIX VI: PILOT STUDY LETTER

School of Education,
Masai Mara University,
P.O Box 861 – 20500,
NAROK

February 2, 2015

Dear Respondent,

RE: PILOT STUDY

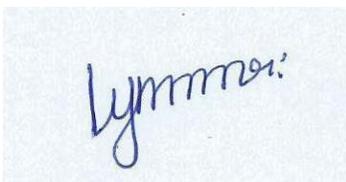
I am a Masters student at Maasai Mara University carrying out a research on the title “
The evaluation of Primary Schools’ Preparedness to Integrate the Learners with Visual
Impairment Into Inclusive Education In Bomet County, Kenya.

You have been identified as one of the respondents during the pilot study of this research.

I kindly ask you to questions herein.

The information you give will be used purely for academic purposes and I assure your
utmost confidentiality.

Yours sincerely,



Lynner Sophie Maemba

ADM. NO. EM06/0023/2009

**APPENDIX VII: LETTER OF INTRODUCTION FROM MAASAI MARA
UNIVERSITY, SCHOOL OF EDUCATION TO NACOSTI**



MAASAI MARA UNIVERSITY
(SCHOOL OF EDUCATION)
OFFICE OF THE DEAN

Tel: 02026853567/7
0208082410

P.O. Box 861-20500
NAROK
KENYA

17th December, 2014

The Executive Secretary,
National Council for Science and Technology
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

**RE: RESEARCH PERMIT IN RESPECT OF LYNNER SOPHIE MAEMBA -
EM06/0023/2009**

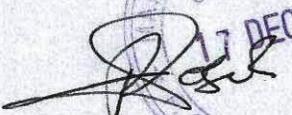
The above named is a 2nd year Masters student at Maasai Mara University School of Education, *Department of Educational Psychology, Guidance & Counselling, EPE, and Special Needs Education.*

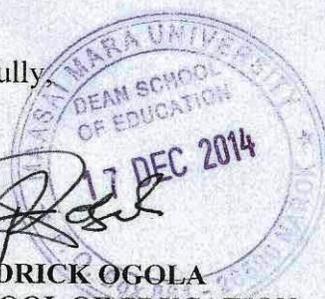
It is a requirement of her Masters studies that she conducts research and produces a thesis. Her research is entitled:

“Primary Schools’ Preparedness to Integrate Visually Impaired Learners Into Inclusive Education in Bomet County, Kenya.”

Any assistance given to her to enable him conduct her research successfully will be highly appreciated.

Yours faithfully,


PROF. FREDRICK OGOLA
DEAN, SCHOOL OF EDUCATION



APPENDIX VIII: RESEARCH AUTHORIZATION LETTER FROM NACOSTI



**NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION**

Telephone: +254-20-2213471,
2241349, 310571, 2219420
Fax: +254-20-318245, 318249
Email: secretary@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No.

Date:

15th April, 2015

NACOSTI/P/15/0297/5303

Lynner Sophie Maemba
Maasai Mara University
P.O. Box 861-20500
NAROK.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “*Primary schools preparedness to integrate visually impaired learners into inclusive education in Bomet County Kenya*” I am pleased to inform you that you have been authorized to undertake research in **Bomet County** for a period ending **31st August, 2015**.

You are advised to report to **the County Commissioner and the County Director of Education, Bomet County** before embarking on the research project.

On completion of the research, you are required to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

**DR. M. K. RUGUTT, PhD, HSC.
DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner
Bomet County.

The County Director of Education
Bomet County.



APPENDIX IX: RESEARCH PERMIT FROM NACOSTI

CONDITIONS

- 1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit.**
- 2. Government Officers will not be interviewed without prior appointment.**
- 3. No questionnaire will be used unless it has been approved.**
- 4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.**
- 5. You are required to submit at least two(2) hard copies and one(1) soft copy of your final report.**
- 6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice.**


REPUBLIC OF KENYA
NACOSTI
National Commission for Science, Technology and Innovation
RESEARCH CLEARANCE PERMIT
Serial No. A 4895
CONDITIONS: see back page

THIS IS TO CERTIFY THAT:

MS. LYNNER SOPHIE MAEMBA
of MAASAI MARA UNIVERSITY , 0-20400
Bomet, has been permitted to conduct
research in Bomet County

on the topic: PRIMARY SCHOOLS
PREPAREDNESS TO INTEGRATE
VISUALLY IMPAIRED LEARNERS INTO
INCLUSIVE EDUCATION IN BOMET
COUNTY KENYA

for the period ending:
31st August,2015

Wynnoma
Applicant's Signature


W. Njoroge
Director General
National Commission for Science, Technology & Innovation

Permit No : NACOSTI/P/15/0297/5303
Date Of Issue : 15th April,2015
Fee Received :Ksh 1,000

APPENDIX X: LETTER OF AUTHORIZATION FROM COUNTY COMMISSIONER

**OFFICE OF THE PRESIDENT
MINISTRY OF INTERIOR AND COORDINATION OF NATIONAL GOVERNMENT**

Telegrams: "DISTRICTER", Bomet
Telephone: (052) 22004/22077 Fax 052-22490
When replying please quote



COUNTY COMMISSIONER
P.O BOX 71
BOMET - 20400

REF: EDU.12/1VOL.I/89

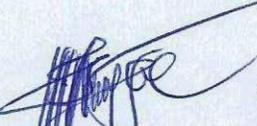
20th April, 2015

All Deputy County Commissioners
BOMET COUNTY

RE: RESEARCH AUTHORIZATION – LYNNER SOPHIE MAEMBA

The above named person has been authorized to carry out research as indicated in the attached letter.

Please accord her the necessary assistance.


COUNTY COMMISSIONER
BOMET COUNTY.
Josphat S. Mutisya
FOR: COUNTY COMMISSIONER
BOMET COUNTY

**APPENDIX XI: LETTER OF AUTHORIZATION FROM COUNTY DIRECTOR
OF EDUCATION**

TEACHERS SERVICE COMMISSION

Email: cdirbomet@tsc.go.ke

Web: www.tsc.go.ke

When replying please

quote

Ref. N^o:BMT/TSC/446814/43
and date



**BOMET TSC UNIT
P.O BOX 369- 20400
BOMET, KENYA**

3rd February, 2015.

**Lynner Sophie Maemba
TSC/446814**

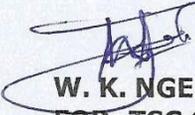
**Thro'
The Headteacher,
Dr. Steury Memorial Primary School.**

RE: PERMISSION FOR RESEARCH

Your application for the above refers.

You are hereby granted permission to carry out research in Bomet County as it is a requirement in your study.

May I take this time to wish you well in your research.


**for: COUNTY DIRECTOR - BOMET
TEACHERS SERVICE COMMISSION
W. K. NGENO
FOR: TSC COUNTY DIRECTOR
BOMET.**

**Copy to: The Secretary,
Teachers Service Commission,
Private Bag,
NAIROBI.**