SOCIAL AND ACADEMIC EXPERIENCES OF PUPILS WITH LOW VISION IN INTEGRATED PRIMARY SCHOOLS IN NAIROBI COUNTY, KENYA

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August, 2012
DECLARATION

This thesis is my original work and has not been presented for degree in any other university.

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Signature                          Date

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Kenyatta University
DEDICATION

This work is dedicated to my husband Benjamin Kinyumu and children Mercy Mwomgeli, Mike Kinyumu, Eric Musyoka, Felix Mwendwa and Victor Mwilu for the support they gave me during the years of study. It is also dedicated to my sister Gladys Musuva and my mentors, Monica Kilonzo, former director, Kenya Institute of Special Education, Grace Ogonda of Nairobi University and Dr. John Mugo, formally of Kenyatta University of Nairobi University for encouraging me to join the programme.
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Lastly I wish also to thank the staff of kilimani and our Lady of Mercy, Shauri Moyo Primary Schools for accepting to fill in the questionnaire and respond to the interviews. Mr. Antony D. Bojana deserves gratitude for editing the final work.
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<tbody>
<tr>
<td>ADA</td>
<td>Americans with Disabilities Act</td>
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<tr>
<td>APA</td>
<td>American Psychological Association</td>
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<tr>
<td>CBM</td>
<td>Christoffel Blinden Mission</td>
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<tr>
<td>EFA</td>
<td>Education for All</td>
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<tr>
<td>I.E.P</td>
<td>Individualized Education Programme</td>
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<tr>
<td>KIEP</td>
<td>Kenya Integrated Education Programme</td>
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<td>LV</td>
<td>Low Vision</td>
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<tr>
<td>MDG</td>
<td>Millennium Development Goals</td>
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<td>MoE</td>
<td>Ministry of Education</td>
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<td>MoEST</td>
<td>Ministry of Education, Science and Technology</td>
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<td>NGO</td>
<td>Non-Governmental Organizations</td>
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<td>NIEP</td>
<td>Nairobi Integrated Education Programme</td>
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<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
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<td>SSI</td>
<td>Sight Savers International</td>
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<td>VI</td>
<td>Visual Impairment</td>
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<td>WMI</td>
<td>Well Meaning Individuals</td>
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<td>TVI</td>
<td>Teacher of Visual Impairment</td>
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ABSTRACT

Low vision (LV) is a term that denotes a visual acuity of 6/18 metres in the better eye after medical correction and other intervention measures. This is interpreted to mean that what a pupil who is sighted can see at six metres, a pupil with LV will see it at eighteen metres. This condition makes performance of everyday tasks difficult or impossible. It affects central and/or peripheral(side) vision. The condition is caused by; injuries that damage the optic nerve, cataract, glaucoma and birth injuries among others. In Kenya, most learners with LV are educated in integrated programmes with most teachers not trained on how to manage nor identify them because of their unique identity. This group of students has been thought to be relatively well-integrated and socially accepted by the sighted peers and therefore, have continued to suffer amidst peers and teachers. They have continued to perform poorly academically. This study investigated the impact of social experiences on academic performance of pupils with low vision in integrated primary schools in Nairobi County. The objectives of the study were: to establish the academic performance of pupils with LV in integrated regular primary schools in Nairobi, determine the impact of social interaction with sighted peers and teachers on academic performance of learners with LV, the role of family and community in the social experiences of learners with LV, establish intervention measures by school to enhance social experiences and academic performance and to establish materials and facilities that support learners with LV by the school. This study used descriptive survey research design. Kilimani and Our Lady of Mercy, Shauri Moyo primary schools in Westlands and Makadara Districts respectively, Nairobi County were used for the study. These are resource centers for learners with LV. Purposive sampling procedure was used to select learners with low vision and teachers. The target population was learners with LV of classes 5, 6, and 7, teachers in these classes and the headteachers. A questionnaire was used to collect data from the pupils and teachers and an interview schedule for the headteachers. A check-list was used to establish available support for learners with LV in the school. Piloting of the instruments was carried out at Muthaiga Primary School which is also a resource center for learners with LV in Kasarani District to determine reliability of data. The pilot school was excluded from the study. Data were analyzed using both descriptive and inferential statistics. The study showed that the level of peer and teacher interaction at school had the highest influenced academic performance of pupils with low vision and that support given by the school for example teaching resources and friendly environment influenced academic performance the least.
Other findings included that, the curriculum had not adapted to suit learners with LV and that most teachers have training in Special Needs Education. The researcher proposed recommendations which included; adaptation of curriculum by policy makers, provision of in service courses to teachers in special needs and including teaching of social skills in the curriculum among others. These findings will go a long way in assisting policy makers, educators and even community in improving social and academic experiences of learners with LV.

CHAPTER ONE
INTRODUCTION

I.1 Background of the Study
Visual impairment (VI) refers to any damage that interferes with the functioning of the eye. Visual impairments may result from diseases for example rubella or German measles, run in a family (hereditary), or result from accidents or poor nutrition among others (Deborah, 2000). A child may acquire visual impairment before (congenital), during or after birth (adventitious). Visual Impairments are divided into two categories, namely; learners who are blind and those with low vision (LV). LV is a term that denotes visual acuity of less than 6/18 in the better eye after medical correction and other intervention. This is interpreted to mean that what a sighted person can see at 18 metres, a person with LV is only able to see it at six metres. It will, therefore, necessitate a person with LV to hold a book very close to the eyes when reading. Progressive loss of vision leads to blindness.

Questions regarding the implementation of appropriate educational services and programmes for pupils with LV have been debated for decades. Research clearly documents that pupils with LV are at a greater risk of social isolation and poor academic performance than their blind or sighted peers. As a result, they may
suffer low self-esteem and self-determination and more potential for deprivation (Corn & Sacks, 1996). This is because most of them appear fully sighted and compensate for their visual impairment by “masking” or “covering” their visual status (Corn & Sacks, 1996), what is referred to as “passing” to appear sighted to their peers. Because students with LV often appear sighted, age-mates, family members, and teachers may not understand why many of these students appear physically awkward, overly shy, and easily frustrated. Pupils with LV do not have an identity as person’s blindness, nor are they considered fully sighted (Corn & Sacks, 1996). They, therefore, require the support of knowledgeable teachers who have gone through training in visual impairments or have had adequate experience in handling such learners. They also require peers and family members and even the community who can help them understand that they have a unique identity that is valued and supported by others (Corn & Sacks, 1996). Furthermore, pupils with progressive visual condition have unique needs as they adapt to their changing visual status overtime and teachers may take time to notice and therefore, not assist them accordingly making their academic performance to further decline. How the family, society and peers and even teachers behave towards persons with disabilities will to some extent determine how a learner with LV adjusts to the condition which has been a major concern.

In Western countries, for example, Canada and the United States of America, most pupils with LV are educated in inclusive classrooms in their neighbourhood schools, rather than residential schools for pupils with visual impairment (American Foundation for the blind, 2003). In India, as far back in 1944, the
Central Advisory Board of Education in the Sargent Report recommended that children with special needs be sent to special schools only when the nature and extent of their defects made it necessary, otherwise they be educated in regular schools. The Kothari Commission (1964-66) on education of learners with disabilities. Experimentation with integrated programmes was recommended in order to bring in as many children in these programmes (Alur, 2002). Notwithstanding, the best intentions of the Indian government, too often for learners with LV, special schools remain a preferred medium of education by parents because the pupils have been mocked, teased, dehumanized, feared or rejected, pitied or even left alone, Baquer and Sharma (1997).

In Africa, poor performance and problematic social experiences from teachers and peers of learners with special needs is attributed to genetic deficits (Herrnstein & Murray, 1994), unrealistic teacher expectations in their classes and inadequate number of good role models (Obiakor, 1997). These experiences have also been also attributed to overrepresentation of these pupils in special schools and under representation in gifted programmes (Virginia, 2009). The society on the other hand, attributed disability to punishment from God as a result of sins committed by the victim or close relatives. So, they stigmatized them by not involving them in any community activities. No one bothered to find out how the life experiences of learners with LV at school could be improved due to the stereotypic attitude. In Ghana and Uganda, for example, learners with LV are educated in integrated schools with resource support (Good Man & Wittenstein, 2003).
In Kenya, provision of low vision services started in the early 1980s in integrated schools with the assistance of the Ministry of Education and several NGOs among them Christofel Blinden Mission (CBM) and Sight Savers International (SSI). Before then, children with LV were educated in schools for the blind irrespective of their degree of loss (Ndichu, 2002) and encouraged to use braille instead of using the little vision they had to read and write so that the programme could gain support from donors.

Research in all these countries has revealed that most pupils with LV are lonely and isolated from their sighted peers and have continued to perform poorly in school. They have fewer opportunities to socialize and fewer occasions to develop their interpersonal skills than do pupils who are sighted (Sacks & Rosenblum, 2006). Despite earnest attempts to include children with LV in regular classrooms, many of them continue to be disadvantaged socially, emotionally and even academically (Corn & Koenig, 1996). For pupils with low vision to be able to socialize well, they must have adjusted well psychologically to accept their condition which will eventually enhance their academic performance. Previous research has linked the quality of children’s social relationships to their academic achievement (Aremu, 1998). However, no study has been done to establish the social and academic experiences of learners, especially those with LV in integrated primary schools with the aim of making their lives at school comfortable. This is what this study intended to establish.

1.2 Statement of the Problem
Learners with LV have unique social and emotional needs that need to be addressed in educational programmes to ensure successful social competence and academic performance. Inability to experience meaningful social relationships makes such learners appear withdrawn to an extent of getting depressed as a result of reduced self-esteem (Mac-Cuspie, 1992). Others develop behavioural problems in their attempts to attract attention from peers and significant others.

If these pupils are to excel academically, they need to improve on their social skills. This can be achieved through systematic instruction in social skills, self-advocacy, and communication skills. This will enable them to do well academically and socially as they move from adolescence to adulthood. These skills once achieved will assist such learners in stating what they want to do or otherwise confidently ask questions and contribute to class discussions. A sense of independence and interdependence in social and vocational pursuits can only be achieved when they are as competent and confident as their sighted peers (Hurre & Kamulaine, 1999). Researchers, (Corn & Sacks, 1996, Mason, 2003) argue that the quality of children’s social relationships is linked to their academic orientations and their school achievement or performance. Problematic peer relationships, for example, where sighted peers may not be willing to include learners with LV in social activities like playing or academic discussions, in particular, have consistently been linked with poor academic outcomes (Graboyes, 1999) and vice versa. This study will investigate the social and academic experiences of learners with LV in integrated primary schools.
1.2.1  **Purpose of the Study**

The purpose of this study was to investigate social and academic experiences of pupils with LV in integrated primary schools. The findings of the study will be used as a benchmark in improving the lives of learners with LV in all the integrated schools in the country.

1.3  **Research Objectives**

The following research objectives guided this study in order to:

i. Establish the academic performance of learners with LV in integrated schools.

ii. Establish the social interaction of learners with LV, sighted peers and teachers.

Determine the role of the family and community in the social and academic experiences of learners with LV.

iii. Establish the intervention measures which have been put in place to enhance social and academic experiences of learners with LV.

iv. Establish material and facility support for learners with low vision offered by the school to make their stay at conducive.

1.4  **Research Questions**

The following research questions guided this study:

i. How is the academic performance of learners with LV in integrated schools?

ii. How is the social interaction of learners with LV with sighted peers and teachers?
iii. What is the role of the family and community in the social and academic experiences of learners with LV?

iv. What intervention measures have been put in place to enhance the social and academic experiences of learners with LV?

v. What material and facility support is offered by the school to learners with LV with the aim of making their stay at school comfortable?

1.5 Significance of the Study

It is hoped that the findings of this study will; provide additional information to stakeholders, caregivers and other learners on the social problems and academic experiences of learners with LV in integrated schools. The findings of the study will also assist teachers and other researchers in identifying those pupils with LV who are interacting well with peers and isolate those skills and strategies to develop interventions to aid those who are not interacting well. The government and other stakeholders will be able to understand the factors contributing to poor academic performance by learners with LV.

Teachers will be sensitized on the strategies they can use to improve the social and emotional aspects of learners with LV as Kenya moves towards inclusive education. Educational policy-makers will be assisted in coming up with in-service programmes aimed at creating awareness on the social experiences of learners with LV.

1.6 Delimitations and Limitations

1.6.1 Delimitations
The study limited itself to Nairobi County. Within the province, it further limited itself to Kilimani and Our Lady of Mercy, Shauri Moyo Primary schools which are resource centres for NIEP. Focus was on pupils with LV, teachers of these pupils and the headteachers of the two schools.

1.6.2 Limitations

The study limited itself to integrated schools due to the existence of sighted and learners with LV in these schools. It may therefore, not reflect the feelings of those learners with LV in special schools. Views of learners with LV in the two integrated schools may not represent the views of others in such schools throughout the country as the number was small.

1.7 Assumptions of Study

The assumptions of the study were that the ability to socialize by learners with LV enhances their academic experiences, Learners with LV engaged in social activities with those who are sighted and that learners with LV had developed strategies to gain acceptance from sighted peers.

1.8 Theoretical Framework

The theoretical framework was based on Banduras Cognitive Social Learning Theory. Bandura (1983) championed social learning approach as a way of understanding human behaviour. This theory points at a complex interaction of individual factors, behaviour and environmental stimuli. The direction of change is reciprocal meaning that a change in one factor will automatically result in change in the other and vice versa. Each of these factors can influence or change
the others. Banduras Cognitive Social Learning Theory has implications to the social experiences of learners with low vision in that it talks about the interaction between the environment and one’s behaviour. Children in a learning environment cannot live in isolation and have to interact during class and at school. The family, peers, teachers and even community have a central role to play in how learners with LV adjust to their condition. If learners with LV receive support from these people, their self-esteem will be boosted (Bandura, 1997). The opposite will happen if there is no support. This important concept, reciprocal determinism, implies that one must examine all these components if they want to completely examine human behaviour, personality and social ecology.

1.9 Conceptual Framework

The conceptual framework below explains the social experiences of learners with LV. The first unit of socialization is the family followed by the society and then the peers/teachers. The way these variables perceive and interact with learners with LV will greatly influence their social and academic experiences.
Figure 1.1: Social Experiences of a Learner with LV

Source: Researcher (2012)

The Conceptual Framework above explains how social experiences of learners with LV from peers and teachers, family and community influence their academic experiences among others. It further explains how availability of school material and facility support together with other intervention measures influence academic experiences of learners with LV. A learner with LV who receives positive social
experiences from peers, teachers, and family and is ready for social engagement will do well at school. This is together with material and facility support at school and other intervention measures, for example, provision of remedial classes. Such a learner will be said to be well-integrated. The outcomes of a learner who is well-integrated at school with good family and community support include improved academic performance, academic self-concept and esteem. However, social acceptance at school without the right facilities and materials for example, brailled books, tactile diagrams and large print materials may not have a lot of influence on the academic experiences of a learner with LV.

On the other hand, a learner with LV who receives negative social experiences from peers, teachers, family, and community, and at the same time not ready for social engagement will perform poorly at school. The academic performance will even be poorer if the school has not put intervention measures, for example, remedial classes or provided with the right materials and facilities by the school, such braille books. Such a learner is likely to display tendencies of withdrawal and even depression. The learner will be said to be poorly integrated.

It is worth noting that the family and the community play a very big role in the social experiences of learners with LV at school. A learner with LV who receives positive social experiences from peers and teachers, and the school has provided enough resources, but not accepted or appreciated at the family and community level, will not do well at school. It is in the family where a child is first exposed to social skills and love in addition to developing a child’s self-esteem. A child who
is not appreciated at family level will most likely develop low self-esteem which is carried over to school affecting how they interact with peers and teachers. It is important that a child with LV is accepted and appreciated at community level. Acceptance at community level is shown through being involved in community activities and also being involved in play with peers at home.
1.10 Operational Definitions of Terms

**Academic Performance:** This refers to how well or poor a learner with LV scores in subjects taught in class influenced by social interactions.

**Inclusion:** This is a concept that sees pupils with LV attending neighbourhood schools. It is the schools and the communities who have to make adjustments to accommodate them.

**Integrated Schools:** These are schools whereby learners with LV learn together with the sighted ones. They follow the regular curriculum with the sighted. It is the learners who adjust to fit in the school.

**Integration:** This is the provision of educational services to learners with special needs within the regular school system. The learners have to adjust to fit in the school not viceversa.

**Low Vision:** This is a term used to describe a group of learners whose visual acuity is less than 6/18 in the better eye after medical and other correction interventions.

**Passing:** Pretence to see by learners with LV in order to gain acceptance in ongoing social/class activities by
sighted peers.

**Social Experiences:** These refer to experiences pupils with LV undergo in their day-to-day interactions with sighted peers.

**Visual Impairment:** This refers to any damage or loss in the structure and/or functioning of the eye.
CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter reviewed literature on the social experiences and academic performance of pupils with low vision in integrated primary schools. The literature was reviewed under the following sub-headings: history of educational services of low vision, socialization and the child with LV, visual limitations experienced by learners with LV, attitudes that influence adjustment to low vision and connecting classroom social experiences by pupils with LV to academic performance.

2.2 Historical Development of Educational Services of Learners with LV

The academic performance of learners with low vision had been poor which could be attributed to the societal perception of disability. The society attributed disability to punishment for sins committed by either the victim or their parents. Disability was then seen as contagious and therefore, victims were isolated and would not mix with the normal ones. At school, learners with LV are viewed as persons who are not serious with their education and are forced to repeat classes many times (Ndurumo, 1996). Classmates of learners with LV do not understand why they look sighted and yet knocking things as they walk or doing things in a clumsy manner. They are mocked, teased, dehumanized and even left alone by their sighted peers.

In the ancient history, persons with visual impairments were accepted in society
and considered a source of wisdom, and model of heroic conduct, however, there is no record to systematically educate and integrate them in society until the 18th century (Deborah, 2000). The first centre for the visually impaired, the New England Asylum for the Blind, now the Perkins School for the Blind opened in 1921 with other schools opening later. The first day classes began in Scotland in 1872. The Scottish Education Act required students be integrated with their sighted classmates and attend local schools. In the United States, the first attempts to integrate learners with visual impairments were made in Chicago in 1900. In Britain, schoolwork was almost oral, reading and writing tasks kept to a minimum (Deborah, 2000). Students attending these classes participated in general education as much as possible. With the increase of children with visual impairments, most parents preferred their children living at home and attending local schools in preference for residential schools (Sacks & Rosen) which is the situation even today. No study has been carried out to establish why parents prefer their children with disabilities staying at home and attending day schools compared to residential schools.

In Kenya, the education of learners with low vision was initiated by the government in 1988 through various NGOs among them, were Christoffel Blinden Mission, Sight Savers International and religious organizations. This gave birth to the development of Integrated Education Programme (NIEP) and later Kenya Integrated Education Programme (KIEP). In Nairobi Province, NIEP runs three resource centres in three primary schools, namely; at Kilimani Primary, the headquarters of NIEP, Muthaiga Primary, and Our Lady of Mercy, Shauri
Moyo Primary of Westlands, Makandara, and Kasarani districts respectively. So far, there are more than 19 integrated programmes under KIEP in various districts in the country. KIEP provides equipment, materials, trained teachers and related services to various schools. However, the programme has experienced various challenges among them inadequate supervision, frequent transfers and exodus of specialist teachers and the school learning environments are not LV friendly.

Although magnifiers and special attention have been provided to learners with LV, they have still continued to portray signs of withdrawal, depression and behaviour challenges besides performing poorly in their examinations. No studies have been done to ascertain why this is so, or find out if there are other intervening factors such as family and community experience. This is what this study intends to establish.

2.3 Socialization and the Child with Low Vision
Socialization usually incorporates the three areas, namely; identity, relations and life activities (Hill, 1992). What we need to ask ourselves as professionals is whether the life experiences of youngsters with low vision result in the healthy development of these areas which will enhance their academic performance or is the experience of having low vision such that students are at risk of growing up with too many emotional stresses, resulting in the formation of unhealthy identities, poorly formed or non-existent relations and/or life activities which are unsatisfying leading to decreased academic performances. This is an area that has not been addressed and is what the researcher intended to study.
Pupils with LV require practical knowledge to socialize well with their peers. Practical knowledge is the tool set, which is necessary in construction of normal life experiences, resulting in identity, relationships and interesting life activities (Corn & Koenig, 1996). Pupils with LV lack this practical knowledge. Dressing in the uniform or pretending to see is but, one practical knowledge which will help a student to belong. Since much of the knowledge is gained through the sense of vision, children with low vision are at risk for not acquiring the incidental information needed for getting started on the formation of socialization process.

Practical knowledge can be described as an extension of daily living skills. For example, although pupils with LV may know how to offer assistance to others, they may not know how to pick up the visual cues that another person is in need of help. They may also know how to put on earrings, but may not know the message, which is conveyed on wearing a T-shirt with long pearl earnings (Graboyes, 1999). All pupils acquire practical knowledge through living, initiating, experiencing, interacting, problem-solving and risk-taking. It is in the realm of practical knowledge that peers, teachers and significant others are able to realistically show that there are differences for LV youngsters. Pupils with LV are likely to score lower in their academic work compared to their sighted peers. For example, in an exam given to youngsters in Texas on practical knowledge (Corn & sacks, 1996), it was found that visually impaired students scored lower compared to blind peers. This is an area that needs to be researched on. One possible reason why this may have occurred is that teachers viewed pupils with
LV as seeing children and therefore, not accorded the information which is given to blind students.

As early as the pre-school years, children with LV get delayed in the development of play skills when compared to normally seeing peers (Kagema, 2002). They lag behind in knowing the functions of the objects or how to play with them because their peers do not want to include them in child games. Here, too, practical knowledge may help a child develop a sense of competence for identity, cooperative play with others in her relationship, and, the beginning of task completion for her life activities. Lack of practical knowledge may inhibit learners with LV from asking for help from teachers and other students. This may lead to poor social experiences and academic performance.

2.3.1 Personal Identity of Pupils with LV

In a discussion of his identity, one teenager said, “it is very hard when you are not really blind or sighted because you are just hanging in the middle” (Freeman, 1997). The Stonegiust concept of “marginal man” (1920) describes the marginal man as an individual “caught between two groups, two philosophies, two countries and two races”. He spoke of the person who leaves one culture but never truly is assimilated in the culture in which he truly aspires to become part of. If we view the individual with “ low vision“ as one caught between the world of the blind and the world of the sighted , we may better be able to understand the unique experience. The pupil must form an identity based on a group which the society has yet to acknowledge. Inability to form this identity
leads to a lot of frustrations especially when they require whatever assistance from teachers and peers who may view them as pretenders and lazy. Perhaps as educators, we are well aware of these students as the largest group of students we serve. But does the society see these youngsters as seeing people or as blind people? How can one be legally blind and yet seeing?

As young children, they “try out” their visual abilities on others (Corn & Sacks, 1996). They wonder when they should portray themselves to be more or less sighted to fit a perception especially when they want to join an activity they are interested in. Professionals may learn to notice those cues which are significant for functioning visually with LV – the same cues which are present for all but may go unnoticed for lack of need in a normally seeing person. With a healthy identity as one who has LV, the student must learn when to choose to use or not to use available vision. Instruction into the use of vision may help some but not all children with LV (Corn & Koenig, 1996). Todate, we cannot say with certainty that all children with LV will benefit from instruction and therefore, many may continue performing poorly academically. There are also unique psychological aspects of having low vision which needs to be addressed in research in future, for example, self-esteem which when improved may enhance socialization and academic performance.

2.3.2 Relationships of Pupils with LV

Acceptance of pupils with LV by sighted peers is important for mental health (Corn & Sacks, 1996). However, relationships which are formed with peers in
childhood may be different for those with low vision. This is because relationship
with those who have low vision may be established with “different” expectations
than when two individuals meet who have normal vision or when one of whom is
totally blind. Some of these differences relate to the “hanging in the middle”
phenomenon not being sighted neither blind; others relate to the unique visual
experiences of people with low vision.

One of the differences is that the needs of those with LV may be the same as for
those who are blind but are often unnoticed. For example, both individuals will
need to have a street sign announced when travelling on a bus but the one with
LV will frequently be forgotten. This is likely to affect the relationships with
those whom they think should be assisting them leading to withdrawal, self-pity
and low self-esteem which may in turn have an influence on their academic
performance. Also, children with LV may be told that they are being called on in
class, but the unknowing teacher, who may not be able to identify them will nod
his/her head, expecting that the child with low vision will see that it is his turn to
respond to a question. These children will feel hated especially when sighted
peers laugh or sneer at them for not responding. This may lead again to
depression, withdrawal and injured self-esteem.

Second, the needs of blind and children with LV may be different but are assumed
to be the same. Some children with LV are able to play in a game of volleyball
but may not be invited to join the game because it is assumed that they can not see
the ball. Those with LV tell of Well Meaning Individuals (WMI) who will take
their hand to show where a signature should be inserted, in fact, they are able to identify signature line and, by the shape of the word, confirm that “signature” is printed below the line. This is an indication of lack of skills to identify pupils with low vision by teachers and peers. Pupils with LV may also fail to advocate for their unique needs as to when they are able to see and when they are not able.

Third, some needs of those with low vision are unique to the experience of having LV but may be unnoticed by those who do not have low vision. Learners with LV suffer visual fatigue and posture associated with reading which may need to be monitored. Fourth, significant environmental cues may exist for visual functions, which will confuse onlookers, for example, a child may have no difficulty in playing a game of table tennis when the lighting is good and the clothing of the opponent is solid (or a distance creating a solid image). The child may be considered malingering when in classroom; she states that she cannot read a textbook which is held a few inches from her eyes.

The society and even teachers are yet to accept pupils with LV as an identified group of people. These children still need to explain their visual difference to those who expect poor vision to come with old age. Rude comments are often the result of misunderstanding. Those with LV are at risk of emotional stress by being “in the middle”, passing as fully sighted, or making a choice to appear more disabled than one actually is (to ensure that emotional or physical needs are met). This makes it hard for these pupils to socialize and as such have continued to perform poorly in school. No study has been carried out establish what needs of
learners with LV are different or similar or even equal to having LV, to those of learners who are blind. Such a study would assist teachers, peers, and significant others when offering assistance to these unique group of learners.

For a person who is deviant to be accepted, he must make up for his deviancy through a higher level of competency (“competency-deviancy” hypothesis by Gold, 1975) and therefore, has sometimes to pretend she is sighted or cannot see at all. The extent to which children with LV are, or choose to be deviant should be our concern. What form this deviancy takes cannot come only from the thoughts of adults. Rather, we need to explore the culture of the age group to which our students want to join. We can help children with LV form relationships by providing incidental visual information and structured social learning activities. Through this, they may feel they belong. Because of their inability to interpret facial expressions or observe the body language, which sighted people assume they can see, entering into ongoing conversations can be difficult for learners with LV. For this to be successful, socialization of pupils with low vision should be made part of teacher education curriculum.

There are three basic areas which promote peer acceptance and popularity in normal kindergarten and primary school children (Gordon, 1990). First, initiating action with peers, ability to use alternative entry methods and how to gain entry into ongoing activities. Second, to maintain relationships, children must cooperate in games and reasonably comply with other activities. Lastly, conflict management must be successfully handled. However, these are the areas which
occupy the least amount of the educator’s time. Perhaps, there is need to establish the entry methods/strategies learners with low vision use to gain entry into ongoing activities for example, games with sighted peers in integrated primary schools and how teachers handle the conflicts that arise between learners with LV and their sighted peers.

2.3.3 Life Activities of Pupils with LV

This matrix is made up of the academic and non-academic tasks which a student with LV learns or experiences. Since children do not learn in a vacuum, socialization must be part and parcel of the school day. The matrix is made up of resources that the student has, for example, Problem-solving skills where the easiest choice may not be the best choice. To develop a repertoire of coping strategies, it is the student who must choose the methods to be followed and assess their value. Next, is self-advocacy, in which the students must independently carry out the plan of action and explain their condition to whoever is involved. If a request is made of another student to help them, it may be followed by some form of appreciation or reciprocation. Social skills are then needed to benefit from the interaction, an aspect pupils with LV may lack. The question is whether when advocating for themselves, can they respect another’s personal body space, a problem often associated with having low vision. Anything we do for students, which give them or their classmates, the message that the students are specially privileged or incapable of using their own devices to do comparable work, or solve their own problems, sets the students apart.
While the academic tasks of a student are prescribed by the regular or modified curriculum, the student with LV must also prepare for work after his school years (Corn & Sacks, 1996). The inclusion of disability-specific social skill is a must in the curriculum. Whether a student is attending a regular day programme or residential school, the teacher of the visually impaired must place socialization as a priority for students who have LV. The Kenyan curriculum has been adapted to include pupils with LV in relation to reading materials and examinations, but socialization of pupils with LV has been left out. When we are doing well in any one area of following – identity, relationships and life activities, the other two are affected positively (Fletcher, 1990). Similarly, if we are hurting in one of these areas, the other two may be adversely affected. For students with low vision, we must monitor each area and be concerned if their overall socialization seems to be going well or faltering. Are they able to initiate interactions in small and medium sized groups? Are they able to understand mixed messages which low vision conveys? This does not mean that a child should not be allowed to fail socially; every individual learns from their social failures in life. Improved socialization will definitely lead to improved academic performance.

2.4 Social Experiences and Academic Performances of Pupils with LV.

The quality of the relationships between pupils with LV and their sighted peers may greatly affect how well they perform in school. How competent a pupil with LV is made to feel about his academic performance will boost his self-esteem thus academic self-concept.
2.4.1 Self-Concept of Pupils with LV

Self-concept can be defined as a set of beliefs (attitudes) individuals hold about themselves that help shape the identity, self-image and self-esteem (Gray & Noakes, 1994). It has an implication on the social life of an individual. Academic self-concept will, therefore, refer to attitudes individuals hold about themselves based on their academic performance, that is, if they perform well, their academic self-concept will be raised and vice versa influencing their social life among colleagues positively or negatively. Middle childhood is a critical period for self-concept formation (Gordon, 1990). It is at this stage that pupils make perceptions about themselves either positive or negative- based on the experiences they go through as they grow. If those living around them make them feel that they are capable of good academic performance, they will definitely perform well. If made to feel incompetent, they are likely to develop tendencies that may only be portrayed through their behaviour, for example, withdrawal, sadness, and depression- internalizing symptoms. While at school, children develop a sense of themselves both as students and as social beings, the beliefs that they form about their academic abilities impact on their classroom performance.

In fact, academic self-concept has been identified as a predictor of academic achievement beyond what can be explained by prior achievement (Warren, 1994). Children who are secure and confident in their academic work usually perform well. This security is usually built by those living with them on a daily basis such that even when the material or subject in school is challenging, they work even
harder and, as a result, earn high grades. This reinforces their beliefs in their abilities, that they are able (Bandura, 1997). However, children who are uncertain about their abilities because of negative comments made by significant others, being bullied and laughed at when they perform poorly, regardless of objective indicators of their academic performance, might be inclined to give up easily or not put forth as much effort (Freeman, 1997). Negative perceptions of academic ability could contribute to a cycle that causes a child to fall behind in schoolwork.

It is reasonable to state that social experiences in the classroom play a role in shaping a child’s academic self-concept. It is known that views school age children have about themselves are formed in part from their relationships (Harter, 1988). Children who are isolated from their peers may come to think about themselves in negative terms, and their negative evaluations may extend beyond the social domain to include internalized negative beliefs about their core self-worth (Graham & Juvonen, 1998). The negative feedback they receive from peers may colour their view of their abilities, for example when another child calls them names that demean their ability (e.g., stupid or dumb). Children who lack acceptance from peers may also be excluded from group activities and harbour negative attitudes about school. This may greatly affect their academic performance.

2.4.2 Internalizing Symptoms of Pupils with LV

Learners with LV experience various challenges which include being viewed by peers as malingerers who pretend not to see because their eyes look just like those
of the sighted. This makes them develop a low self-esteem portrayed through withdrawal from social activities. They, therefore, become prone to reduced psychological wellbeing. Reduced psychological wellbeing may also contribute to the indirect association between social experiences and academic performance in the classroom. These problems are often grouped under the general heading of internalizing symptoms, which include signs of behavioural inhibition and negative emotions such as anxiety and sadness. Children who are rejected and lack acceptance from peers are prone to feelings of loneliness and depressed mood (Brendgen, Vitaro, Turgeon, & Poulin, 2002). Free from psychological distress, a child can maintain focus and concentrate on school-related tasks and challenges. Reduced vulnerability to depression in children impacts on their scholastic achievement (Bandura, Babaranelli, Caprara, & Pastorelli, 1996).

The attention resources of a child suffering psychological distress may be shifted to other problems, leaving the child less able to attend to lessons in class. Negative mood states have, in fact been found to interfere with students learning in school, (Roeser, van der Wolf, & Strobel, 2001). The role of internalizing symptoms was supported by another study’s analysis of cross-sectional data in which perceived peer harassment correlated with low self-worth, feelings of loneliness, and depressive symptoms. These indicators of psychological distress, in turn, predicted poorer school outcomes among middle-school students (Juvonen, Nishina, & Graham, 2000). The importance of vision and the role it plays has been recognized by numerous authors.
The effective utilization of vision by learners with LV is dependent on their overall physical and emotional health status in relation to environmental factors, such as the size of print, lighting, contrast, changes in the environment and figure – ground requirements, to name but a few. These variables often result in the inconsistent visualizing of certain sights at certain times.

Unfortunately, parents, teachers, peers and service providers often assume that learners with LV can see (“if once, why not all the time?”). Performance difficulties are then attributed to inattention, lack of ability, or poor co-ordination. Moreover, apparent contradictions (not seeing the blackboard or reading signs, yet being able to run or ride a bicycle, behaviours to be expected in those with a central field loss) often are deceiving to the public (Freeman, 1997). It is difficult as well to understand that persons with a peripheral field loss can “see” an object across the room, yet fall over a stool. Moreover, they may find it necessary to develop and utilize behavioural change for example, squinting, tilting the head, performing slowly and compulsively, being orderly, sub-vocalizing, and using their finger to keep their pace on a printed page) to compensate for their visual difficulties. For people with low vision, such behaviours are “normal”, necessary and must be allowed, but they are often misunderstood and discouraged.

2.5 Family and Community Support for Learners with LV

Social support for learners with disabilities bolsters academic performance and reinforces community membership. Social support benefits the providers and recipients as it strengthens the abilities of students with disabilities. Social support
is a community effort that should include service providers and the entire community membership. How the community addresses and includes its diverse members influences the entire social group and its progress. As children with LV develop and become adults in the community, they either encounter or lack social-support that influence their ability to thrive in their environment. Jane Adams, a social reformer, recognized that personal growth is interconnected with social development and viewed moral choices as emerging from social processes, Larkin (2005). People cannot separate themselves from the disabled community members because they influence each other as part of the whole.

Larkin (2005) says that through community organizing activities, society is confronted with the parts of itself that it may have alienated and repressed, components; it must integrate in order to grow into healthier manner. Social support is preventive of alienation and repression as it addresses the need of all the people. Social support embraces a strong perspective which recognizes that first and foremost, despite life’s problems, all people and environments possess strengths that can be marshalled to improve their quality of life (Dejong & Miller, 1995). For children, with disabilities or not, academic performance and successful socialization are highly influenced by the social support they receive and perceive.

Children with disabilities should not be sheltered from experiences or opportunities. Part of social support is the adaptation of activities to include them. The sooner that children with disabilities are integrated into the general
community, the better they will adapt to its demands, expectations and offerings. These gains can transfer to the academic world that requires developed communication, socialization and thought process skills (Zipper & Simeonson, 2005).

2.6 Visual Limitations Experienced by Pupils with LV.

Loss of vision imposes a lot of limitations on learners. These limitations include; limitations in the range and variety of experiences, ability to get around and interaction with the environment. These limitations may have an influence on a learner’s academic performance besides social interactions.

2.6.1 Limitations in the Range and Variety of Experiences

Early concept and language development are particularly influenced by the limitations in a child’s range and variety of experiences. While sighted students can give extremely detailed explanations about objects or events despite limited understanding of them, learners with visual impairments learn names for objects in their environment but acquire very few words to describe those objects’ characteristics (Lowenfield, 1973). Both of these circumstances influence a person’s ability to socialize because conversation language may lack a common basis among conversational partners. Social interactions are also influenced by a lack of common experiences. The potential for inadequate development of appropriate social skills and the related negative effect on self-esteem and academic performance of learners with low vision are serious concerns that may have a long time impact (Brilliant, 1999).
2.6.2 Limitations in Mobility

Individuals who are visually impaired are limited in their spontaneous ability to move safely in and through the environment. This restriction influences a child’s early motor development and early exploration of the world and affects the child’s knowledge base and social development thus, a continuing source of frustration leading to low self-esteem (Corn & Sacks, 1994; Turtle & Ferrel, 1995). A strong relationship exists between independent travel and self-esteem (Hill, 1997). Learners with LV who can move around without assistance are likely to develop a high self-esteem.

2.6.3 Limitations in Interaction with the Environment

For young children, reduced vision correlates with poor motivation to move through the environment, manipulate toys, and initiate interactions with peers (Brilliant, 1999). This tendency towards physical and social detachment (Lowenfield, 1973,) and low motivation can have long-lasting consequences affecting the development of a healthy sense of competence and mastery hence low self-esteem. Individuals who have a poor sense of ability to affect change on their environment are at risk of developing poor self-esteem, poor academic achievement and reduced language and social skills (Harwell, 1992,). Persons with visual impairments are often reported as being apprehensive that every action is watched and judged. So, they feel they must remain controlled and may be less able to relax or less willing to take risks or even finding it difficult to ask questions in class or from peers when they do not understand academic concepts.
2.7 Attitudes that Influence Adjustment to LV

Acceptance of a condition or a situation one may be in, for example, disability, is what lead to a healthy adjustment and one learning to live with it. However, in as much as one may be having the resources for adjusting to the condition, comments and beliefs from significant others may make it difficult to adjust. To pupils with LV, adjustment to this condition is difficult to come to terms with and will be influenced by; reactions of the community, family, peers and their unclear identity of neither being blind nor sighted-neither fish nor fowl phenomenon.

2.7.1 Reactions of the Community

Although stereotypes about blind people still exist, when fully sighted people get the opportunity to meet persons who are blind or to see them depicted positively, their preconceived ideas about their capabilities and competence of blind people change (Corn & Sacks, 1996). Various films have portrayed blind people as active, capable and competent rather than helpless and needy, for example Steve Wonder. In contrast, people with low vision have not been the main characters in films because they are viewed as sighted and therefore, when they do not perform as expected, the conclusion is that they are pretending.

Persons with normal vision in the community have difficulty comprehending what it is like to be blind. Although they may be able to imagine what it is like to be blind when they are in a dark room or when they close their eyes (even though these perception are unrealistic), they are often confused in relation to low vision. Sighted people may have erroneous beliefs about how much and how far a person
with LV can see, what age one may acquire LV and what about the causes of LV, often mistakenly assumed to be such factors as reading in dim lights or in a moving vehicle, reading small print, or sitting too close to a television set (Corn & Sacks, 1996). They do not believe that persons who appear to have LV really do have low vision because they do not use a cane or adaptive devices. They may see them as pretenders making their adjustment difficult. For example, a father believed that his 14 year-old daughter was malingering because she could not recognise her aunt’s face across a room but could find earrings and other small items on top of her dressing table (Sacks, 1992). Even when people with LV are “well adjusted”, they may feel angry or withdrawn when they are in situations in which they have to explain their visual status or their actions for example, holding a book close to eyes in order to read well.

2.7.2 Reactions of Family Members

It is not always easy for those who are close to a person with LV to understand or comprehend what it is like to live or to function as a person with low vision. Many families view blindness as a punishment, a curse, or “God’s will” or share the same erroneous beliefs about LV as do other sighted people in the community. How families react to and interact with their members with LV is highly dependent on their perceptions and cultural values and will influence how a person with LV adjusts. Even when family members are fearful of or devastated by the initial diagnosis of blindness, they can more clearly understand what to expect or how to proceed with daily activities than when the diagnosis is LV, a
condition to which they may react with frustration and impatience because they are not always sure what the person can see or accomplish, (Corn & Sacks, 1994).

Family conflicts may arise between immediate family members with respect to expectation for the person with LV. Pre-conceived ideas may influence how a relative misinterprets a person’s level of visual competence or actions. For example, parents and grandparents of children with LV may view them as sighted and become annoyed and angry when they do not always initiate interactions with them. They may not understand that they may need to cue them to get their visual attention (Sacks, 1992). Pupils with low vision may carry this misunderstanding to school affecting their academic performance. Research does not indicate whether children and adults with LV differ on the basis of their gender or cultural or racial groups to the extent to which they encounter confusion or rejection from family members. A study needs to be carried out in future to address this.

2.7.3 Reactions of Classmates

Classmates may have difficulty recognising or understanding the unique visual needs of peers with LV. At first, they may be curious about how the learner sees or why some of them who already wear thick eye-glasses still need a magnifier to read or use a computer. A child would generally ask direct questions, such as “why do you use those big books? Or “why do you get so close to everything?” or ridicule the child and make cruel comments like “you are ugly, you have four eyes” or “I do not want you on our team; you cannot hit the ball”. This affects the pupil with low visions self-esteem (Corn & Sacks, 1996). Thus, the person with
LV must first decide when to disclose his or her visual condition, and have a plan to assure classmates that he or she can accomplish tasks with reasonable accommodation and will fit into the social class grouping.

2.8 Summary
The literature review indicated that learners with low vision have a challenge in socialization with sighted peers at school due to lack of practical knowledge which is gained through the sense of vision. Lack of this practical knowledge makes it difficult for them to ask for any assistance whether from teachers or sighted peers. These experiences usually affect their academic performance besides socialization. The literature review also revealed that teachers teach them as if they were sighted and this influences their school performance also. The teachers may not also advocate for their needs leading to further alienation by sighted peers.

Due to inability to identify learners with LV, teachers may not advocate for their needs to significant others neither put any intervention measures to their poor academic performance, for example, giving them remedial classes. In the family and community, these learners are seen as malingerers and pretenders causing them to portray behavioural problems and withdrawal symptoms. Learners with LV have not been portrayed as successful like the blind, for example, Steve Wonder. The literature review also revealed that; the needs of learners with low vision may be same as for those who are blind but go unnoticed, may be different but assumed to be like those of sighted peers and lastly that they may be unique to
the experience of having LV but may go unnoticed by those who do not have low vision. It is for this reason that the researchers conducted a study to establish the peer, teacher, family and community contributions to social experiences of learners with LV and their academic performance in integrated primary schools. The researcher recommends studies on the teachers’ attitudes towards learners with LV, performance of learners with low vision over that of sighted peers and why parents prefer their children to attend day schools compared to residential schools.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction
This chapter outlines the methods and procedures used by the researcher to collect the data required for the study. The data collected were used to understand the social experiences and academic performance of pupils with low vision in integrated schools. The chapter gives details about the research design, variables, location of the study, target population, sampling procedure and sample size, research instruments, piloting, data collection procedure and data analysis and ethical considerations.

3.2 Research Design
The study adopted descriptive survey research design to investigate the social and academic experiences of learners with LV. The method is used to collect data from a large number of samples at a particular time so as to describe the nature of the problem being investigated (Mugenda & Mugenda, 2003).

A descriptive survey also aims at obtaining information which can be analyzed, and comparisons made (Kerlinger, 1979). The generalization is based on the responses of the sample drawn from the population (Kothari, 2003). Descriptive case design was used in this preliminary study to enable the researcher to gather both qualitative and quantitative information, summarize, present and interpret data for the purpose of clarification (Orodho, 2004). This research design was
best for study because respondents were given an opportunity to express themselves in answering the questions and seeking any clarifications.

3.2.1 Variables

3.2.1.1 Independent Variables

The independent variables in this study were social interaction with sighted peers and teachers, role of family and community in social experiences, material and facility support to learners with LV from school, and intervention measures by the school towards enhancing the academic performance of learners with LV. The variables in the pupils questionnaire were operationalized by scoring them in a scale of 1-4. Positive items were scored; Strongly Agree-4, Agree-3, Disagree-2 and Strongly Disagree-1, while negative attributes were scored; Strongly Agree-1, Agree-2, Disagree-3, and Strongly Disagree-4. All the values on attributes were added to give a composite variable and an average calculated and subsequently a percentage.

3.2.1.2 Dependent Variables

The dependent variable was academic performance. Academic performance of pupils with LV was obtained through looking at the pupils academic performances over the past two years (secondary data), and comparing them with the information collected from the pupils with low vision in classes 5, 6, and 7 to ascertain whether it was related to their social experiences. A checklist was also used to establish the structures that had been put in place to enhance their learning
environment and also academic performance, for example, environmental adaptation and provision of large print materials.

3.3 Location of the Study

Nairobi Province has three resource centres based in three integrated primary schools for learners with visual impairments. These schools included Our Lady of Mercy in Shauri Moyo serving Makadara District, Kilimani Primary serving Westlands District and Muthaiga Primary School serving Kasarani District. Out of the three centres, two were used for the study, namely; Kilimani and Our Lady of Mercy, Shauri Moyo Primary schools. Both schools were in Nairobi Province. Kilimani Primary School is located about eight kilometres from the city centre along Ngong road while Our Lady of Mercy Primary School, is located about five kilometres from the city centre. The schools were selected because they were resource centres for all learners with visual impairments within their districts and therefore, had a large number of learners with LV. They were under the NIEP programme as stated earlier.

3.4 Target Population

The study population comprised a total of, 1400 pupils, 42 teachers and the headteachers from the two schools used for the study.

3.5 Sampling Techniques and Sample Size

3.5.1 Sampling Technique

The study used purposive sampling to select pupils with LV. Purposive sampling involves selecting samples using a set criteria (Orodho, 2004), such as type of
school (national, provincial, district), whether school is girls, boys or mixed. The study adopted purposive sampling because it was only interested in learners with LV in classes 5, 6, and 7, all teachers of classes 5, 6 and 7 and the headteacher who is the administrator thus the criterion. The schools were chosen for the study because as resource centres, they housed all the learners with LV from the various primary schools within their districts. Pupils of classes 5, 6 and 7 were purposely selected because of their ability to provide information about their social experiences with their sighted peers and how these social experiences may have impacted on their academic performance. The teachers were chosen as informants because of their day-to-day interactions with these pupils in their different classes giving them an opportunity to observe how these pupils related with their peers at various times of the day. They were also able to provide information based on how peer acceptance or rejection influenced the social and academic experiences of pupils with LV.

3.5.2 Sample Size

A sample is a small proportion of a population selected for observation and analysis (Mugenda & Mugenda, 1999). In this study, the sample comprised the headteachers, teachers for classes 5, 6 and 7 and pupils with LV of classes 5, 6, and 7. These classes were used because the pupils have adequate language to be able to comprehend questions being asked. The sample size comprised a total of 15 pupils with low vision from Kilimanj Primary School and Our Lady of Mercy Primary School, Shauri Moyo, with 5 and 10 pupils with low vision respectively,
the two headteachers and 30 teachers from both schools teaching classes 5, 6 and 7.

Tables 3.1: Sample size: Pupils and teachers from selected schools

<table>
<thead>
<tr>
<th>Total School</th>
<th>No. of Pupils With Low Vision</th>
<th>No. of Teachers</th>
<th>No. of H. Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kilimani Primary</td>
<td>05</td>
<td>16</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our Lady of Mercy, Shauri, Moyo primary</td>
<td>10</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>30</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>46</td>
<td></td>
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</tr>
</tbody>
</table>

3.6 Research Instruments

Data were collected using an interview guide for the headteachers, a questionnaire for teachers and another one for pupils with LV, an observation checklist to find out the material and facility support the school accorded to learners with LV. Data on pupils’ performances over the last two years were also sought from the pupils by the researcher.

3.6.1 Interview Schedule for Headteachers

An interview guide is a list of questions used to elicit specific information from respondents, (Orodho, 2005). An interview guide is effective where the respondents may not have adequate time to fill in a questionnaire. In this study, it was used for the headteachers who were thought to be too busy with administrative duties to fill in questionnaire items. The researcher recorded the
responses through note taking on the same day. The guide comprised four questions aimed at soliciting in-depth information from the headteachers which may not been captured in the questionnaires. It solicited information on how peer relationships influenced social and academic experiences of pupils with LV. It also sought the intervention measures that had been put in place by the school. The responses were recorded through note taking during the interview for later thematic analysis.

3.6.2 Questionnaire for Pupils
This questionnaire comprised twelve, 4- point Likert scale questions for the learners with LV. Pupils were expected to respond to issues such as; whether they felt lonely most of the time, whether they preferred being with other visually impaired learners and whether they would perform academically better if they were sighted among others. The responses were scored on a five-point scale- SA- 4 points, A- 3 points, D- 2 points and SD- 1 point. The questionnaires were distributed to the schools and collected after one week.

3.6.3 Questionnaire for Teachers
The study used a questionnaire to collect data from teachers because they are easy to administer and provide easy collection of data. The questionnaire also gave the teachers ample time to go through the items keenly. The questionnaire was divided into two sections. Section A focused on personal details of the teachers and Section B collected information regarding the social experiences of pupils with LV and the impact of these experiences on their academic performances.
Some of the items in the questionnaire were closed-ended seeking specific information while others were open-ended giving the respondents a leeway for their own views regarding the social experiences of pupils with low vision in relation to academic performance. The completed questionnaires were distributed and collected after one week.

3.6.4 Observation Checklist

This checklist aimed at establishing the facilities available for assisting learners with LV. These facilities included; brailleers, magnifiers, brailed teaching and learning materials, large print books, adapted drawings. The checklist also included establishing whether the curriculum being used by teachers had been adapted to suit learners with LV.

3.7 Pilot Study

The instrument was piloted at Muthaiga Primary School, Kasarani District. The school was not involved in the study. The school was chosen for piloting because just like the study schools, it was a resource centre for learners with LV under NIEP. Piloting was done by administering instruments twice at an interval of one week to three randomly selected teachers of classes 5, 6 and 7, the headteacher, and pupils with low vision of classes 5, 6, and 7 in the school. The objective of piloting was to measure validity and reliability of the research instruments to determine whether the respondents were capable of filling the questionnaires and understand the interview schedule. The pilot study helped find faults in the instruments which were corrected and some items changed and others deleted.
prior to the main study. The researcher established that some items were not clear and made the necessary amendments. The results of the study enabled the researcher to have an idea of the kind of results to expect.

3.7.1 Validity
For the purpose of the study, the researcher distributed a few of the questionnaires to selected university lecturers competent in the area of LV. The aim was to determine if there were any ambiguous questions, whether instruments were measuring what they were supposed to measure. The researcher administered questionnaires with the same items to six teachers teaching in classes 5, 6 and 7. Questionnaires for learners with LV were administered to three pupils of classes 5, 6 and 7, one per class. The interview guide was administered to the headteacher and his deputy of the pilot school. They were subjected to a pilot study to establish the clarity and relevance of the items. The researcher then compared their responses. This helped in detecting research bias or respondent effect provoked by the items and in removing ambiguity, hence ensuring the validity of the items. A few items were not clear and recommendations were incorporated in the final questionnaires and interview schedules.

3.7.2 Reliability
To ensure the reliability of the instruments, the test-re-test method was applied on the two questionnaires, one for pupils and the other for the teachers. This involved administering the same instrument twice to the same group of subjects within a period of two weeks (Orodho, 2005). The questionnaires were given to the six
randomly selected teachers of classes 5, 6, and 7 and two pupils with low vision from each of these classes. The interview guide was piloted with the headteacher twice in an interval of two weeks. All this respondents were not used for the study. The two sets of responses were then analyzed to check for consistency. This established the degree to which the same results could be obtained with a repeated measure of the same concept. A Pearson Product Correlation Coefficient Moment was used to establish reliability which was found to be 0.731. This was high enough for the researcher to conclude that the instruments were reliable.

3.8 Data Collection Procedure

The researcher made a formal visit to the schools and informed the headteachers of the intention to use the school for the study. Formal appointments as to when and what time to visit the schools to gather required information from the pupils with LV and teachers of classes 5, 6, and 7 and the headteacher were done on that day. On the agreed dates, the researcher gave questionnaires to the senior teacher who later distributed them to the teachers and the pupils respectively. On the same date, the headteachers were interviewed and responses recorded in a note book and immediately analyzed.

3.9 Data Analysis

Questionnaires from the respondents were checked for completeness. Forty two questionnaires out of 45 were duly completed and included in the analysis. Items from the filled questionnaires were first edited, a process of examining the collected raw data to detect errors and omissions and to correct them were
possible, (Orodho, 2005). The data were coded manually, (Orodho, 2005) and the codes keyed into the computer and processed using the Statistical Package for Social Sciences (SPSS) programme. The use of SPSS yielded descriptive statistics such as data frequencies and percentages. The data were then presented in frequency tables and histograms to give a clear visual presentation. Data collected from the interviews were analyzed using narrative descriptions. The analyzed data were then summarized into themes which included background information of respondents to the questionnaires, academic performance of learners with LV, social experiences at school (teacher/pupil interaction), family and community acceptance, materials and facility support and intervention measures by the school. The themes were used to answer the research questions formulated to guide the study (Strauss & Corbin, 1990).

3.10 Ethical Considerations

Though the Dean, Post Graduate Studies, at Kenyatta University, the researcher sought and got informed consent from the Permanent Secretary, Ministry of Higher Education and the Director of City Education after explaining to carry out the study. A permit was issued giving a go ahead to carry out the study. The researcher then gave copies of the permit to the Provincial Director of Education, District Education Officer and the headteachers of the schools being used for the study. She explained to them the purpose of the study so that they may also be aware. Respondents did not write their names on the questionnaires to ensure confidentiality of the source of the information given.
CHAPTER FOUR
DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter covers data presentation, analysis and discussion of major findings. This is done as per the objectives of the study. The research questions intended to find out; the academic performance of pupils with LV, school support to learners with low vision, social experiences of learners with LV resulting from teacher/peer interaction and the role of family and community support towards social and academic experiences of learners with LV. The chapter also discusses the intervention measures towards improving these experiences. Findings have been presented in tables and charts generated from quantitative data derived from the questionnaires. The findings from pupils with low vision were also enhanced by data generated from teachers questionnaires and headteachers interview guide. Purposive sampling was used to collect data from teachers and pupils with LV.

4.2 Demographic Information

In this section, data collected from respondents are analyzed. Demographic data included: gender distribution of learners with LV, highest level of training for teachers, number of teachers trained in special needs and teaching experiences of teachers of classes 5, 6 and 7.

4.2.1 Gender Distribution

The figure below shows the number of male/female teacher respondents. These are the teachers of the learners with LV in standards 5, 6 and 7.
The data above indicate that there were more female teachers (77.8%) compared to male teachers (22.2%) teaching learners with LV in classes 5, 6 and 7 in the schools used in the study.

### 4.2.2 Teachers Highest level of Training

The figure below illustrates the proportions of teachers of learners with LV teaching in both Kilimani and Our Lady of Mercy (Shauri Moyo) primary schools by their levels of education.
Figure 4.2: Teachers highest levels of training

Source: Researcher

Figure 4.2 above indicates that majority of the teachers in the two schools were degree holders (51.9%). Only one teacher had a master’s degree, representing 3.7% of the population under study. The figure further indicates that 29.6% of the teachers had a diploma in education while 14.8% had been trained up to certificate level. These further suggest that most of the teachers teaching in the schools studied have gone for further training acquiring more pedagogical skills which could assist them in handling learners with LV.

4.2.3 Teachers Trained in SNE

The table below shows an analysis of the number of teachers trained in SNE who interacted with learners with low vision on daily basis in integrated schools.
Table 4.1: Teachers trained in SNE

<table>
<thead>
<tr>
<th>Training in SNE</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>10</td>
<td>37.0</td>
</tr>
<tr>
<td>No</td>
<td>14</td>
<td>51.9</td>
</tr>
<tr>
<td>Un-submitted Questionnaires</td>
<td>03</td>
<td>11.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>27</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

From Table 4.1 above, most of the respondents (51.9%) reported that they did not have any training in SNE while 37% indicated that they had training in SNE. This implies that most of the teachers teaching in integrated schools have no training in SNE. This further suggests that teachers handling pupils with LV may not identify them as having visual issues that may require intervention due to their unique presentation of “lying in the middle”. They may, therefore, not accord them the assistance they give to those who are blind.

4.2.4 Teachers Level of Training in SNE

The table below explains the levels of training of the teachers handling learners with LV in the designated classes.

Table 4.2: Teachers level of training in SNE

<table>
<thead>
<tr>
<th>Level of Training in SNE</th>
<th>No.</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate</td>
<td>4</td>
<td>14.8</td>
</tr>
<tr>
<td>Diploma</td>
<td>3</td>
<td>11.1</td>
</tr>
<tr>
<td>Degree</td>
<td>5</td>
<td>18.5</td>
</tr>
<tr>
<td>Masters</td>
<td>1</td>
<td>3.7</td>
</tr>
<tr>
<td>No Training</td>
<td>14</td>
<td>51.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>27</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
Table 4.2 indicates that most of the teachers handling pupils with LV in the schools have no training in SNE (51.9). Very few teachers are trained in SNE; (18.5%) up to degree, 11.1% diploma, 3.7% at masters’ level, and 14.8% up to certificate level. These findings agree with the study done to investigate the academic performance of learners with visual impairments (Corn & Sacks, 1996) where learners who were blind scored higher than learners with LV.

4.2.5 Teaching Experience

The figure below shows the various qualifications of teachers teaching learners with low vision in the integrated schools for learners with LV.

![Bar Chart]

**Figure 4.3: Teaching Experience**

**Source: Researcher**

Figure 4.3 above shows that most of the teachers had a wide teaching experience, with 40.7% of them with between 16-20 years and 29.6% of them with a teaching experience of over 20 years. This suggests that the teachers handling the learners
with LV in these classes are able to support them due to their wide teaching experience. Most of them were way above the expected teaching training level of a P1 teacher education and therefore, are also able to identify those learners with issues in academics and need support, although some may not relate the poor performance to vision.

4.3 Data Analysis

This section will analyze the findings of the study based on objectives. The findings are presented in tables and figures.

The first objective sought to establish the academic performance of learners with LV. The results are shown below.

4.3.1 Academic Performance of Pupils with Low Vision

The researcher obtained academic class rankings of individual pupils with LV from class records availed by the class teachers and calculated performance index/score as follows;

Performance index = \(100 \times \frac{\text{Total class size} - \text{Ranking in class}}{\text{Total class size}}\).

The index, therefore, is an indicator of the proportion of the class falling below the pupils under consideration or in other words, the percentage of the pupils defeated by the pupil in the examination.

The performance variable had the following properties: the worst pupils with LV had ranked last in the class while the best of these pupils had beaten 82% of the class, which is a good indicator of integration. On average, the LV pupils had 37% of the class below them with a standard deviation of 28.51. Twenty-five per
cent (25%) of the LV pupils were found in the bottom 10% of the ranked class. Fifty percent (50%) of the LV pupils were found in the bottom 32.65% of the ranked class. None of the students is able to beat the whole class and so one hundred per cent (100%) of the LV pupils were found in the last 82.2% of the rankings.

To facilitate easier analysis, the performance index was further categorized as; 0-50% to be referred to as below 50th percentile and 50% -100% to be referred to as above 50th percentile. The new categorical variable revealed that 60% of the pupils fell into below 50th percentile category while the rest were in above 50th percentile category. Those pupils above 50th percentile were considered well-integrated thus while those below 50th percentile are considered not well integrated due poor academic performance.

Figure 4.4 below illustrates the impact of teacher/pupil interaction, school material and facility support, family/community support and intervention measures on the academic performance of pupils with LV. The data are analyzed as per the objectives.
The second objective aimed at establishing the social experiences of learners with LV with sighted peers and teachers.

### 4.3.2 Social Experiences at School (Sighted Pupils/Teacher Interaction)

The results are explained below.

It is at school that all learners spend most of their time compared to their home. The kind of experiences these learners go through whether from peers, teachers or the rest of the school community determine how comfortable their stay is. In this variable, most of the respondents disagreed that they felt lonely most of the time.
A good number of the respondents (60%) reported that they preferred spending time with other visually impaired learners while 53.3% of the respondents reported that sighted peers preferred doing class work with other sighted peers (53.3%).

From the teachers questionnaire, the respondents strongly disagreed that learners with low vision (57.3%) preferred being alone during their free time and doing assignments alone (61.5%). On the other hand, the respondents agreed that learners with LV preferred playing with the other learners with LV and that they scored better in assignments they did with their sighted peers (52.2% and 92% respectively). Almost all the respondents (92.3%) disagreed that learners with low vision scored better in tests they did than their sighted peers. In terms of the academic performance, social experiences at school, this variable had the greatest influence on the academic performance of learners with LV as demonstrated in Table 4, whereby, 75% of the learners fell above 50th percentile while 54% fell below 50th percentile. This difference can be seen clearly by looking at the difference in the height of the bars.

The third objective sought to determine the role of the family and community towards social and academic experiences of learners with LV. The results are explained below.

4.3.3 Role of Family/community on the Social and academic experiences of learners with LV.

The attributes studied under this variable included; family involvement, parental
encouragement and motivation from parents from parents of learners with LV, parental appreciation of academic performance, involvement in community youth activities and participation in organized community competitions. A good number of learners with LV (66.7%) reported that their parents involved them in family activities. These activities included attending social functions and being assigned duties at home like the other children among others. More respondents (53.3%) reported that their parents never appreciated their academic performance with most respondents (80%) reporting that their parents encouraged and motivated them in their schoolwork. Alienating learners with LV from family engagements will not only affect their self-esteem but also academic performance.

As far as community involvement was concerned, most respondents (78.6%) reported that they were engaged in community youth activities. This could be attributed to the fact that peers and other members in the community identified them as sighted. These youth activities included, tree planting. The group of learners involved in youth activities must be those who were able to explain their condition and could confidently state what they were able to do or not. Such are the learners with high self-concept. However, all the respondents disputed that they participated in community games competitions.

It is worth noting that in relation to academic performance as summarized in figure 4.4, lack of family and community support is second in influencing the academic performance of learners with LV with 73.3 % of the learners falling above 50th percentile and 60% of them falling below 50th percentile. Social
experiences at school led in influencing academic performance of pupils with LV. The fourth objective sought to determine the intervention measures the schools had put in place to improve the social life and academic experiences of learners with LV. The results are explained below.

4.3.4 School Intervention Measures

The data collected from pupils indicated that the schools had put in place measures to improve the social life and academic performance of pupils with LV. The intervention measures included advocacy, remedial classes and organizing competitions between the sighted and pupils with LV. The respondents were asked whether the teachers gave them extra classes after school or free time. Most of the respondents (86%) indicated that teachers gave them extra classes. The extra classes improved their performance a lot, improving their self-esteem.

From the teachers questionnaire, 44.4% agreed that they gave organized remedial classes to learners who were not yet proficient in braille and also those who were slow to understand concepts. This was done in the resource room and greatly improved their performance. Quite a number of teachers (70%) advocated for needs of learners with LV. The teachers reported that they used a number of teaching strategies with the aim of assisting these learners improve their performance. Cooperative teaching strategy was the most used (81.5%) as indicated in table 4.5 below. Assignments were the least used (3.7%). As summarized in Table 4.4, with intervention measures put in place, there was a very small difference in performance between pupils above or below 50th percentile (80.5% and 75.9% respectively.)
Table 4.5 below summarizes the teaching approaches used as intervention measures towards improving the academic performance of pupils with LV in integrated schools.

Table 4.5: Teaching Approaches used to assist learners with low vision.

<table>
<thead>
<tr>
<th>Teaching approaches</th>
<th>No Count</th>
<th>%</th>
<th>yes Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remedial classes</td>
<td>15</td>
<td>55.6</td>
<td>12</td>
<td>44.4</td>
</tr>
<tr>
<td>Cooperative learning encouraged</td>
<td>5</td>
<td>18.5</td>
<td>22</td>
<td>81.5</td>
</tr>
<tr>
<td>Peer group teaching</td>
<td>7</td>
<td>25.9</td>
<td>20</td>
<td>74.1</td>
</tr>
<tr>
<td>Assignments</td>
<td>26</td>
<td>96.3</td>
<td>1</td>
<td>3.7</td>
</tr>
<tr>
<td>Individualized Education Programme (IEP)</td>
<td>14</td>
<td>51.9</td>
<td>13</td>
<td>48.1</td>
</tr>
</tbody>
</table>

The fifth objective sought to establish the materials and facilities support to learners with LV offered by the school and how it influences the social and academic experiences of learners with low vision. The results are shown below.

4.3.5 Materials and Facilities Support to Learners with Low Vision Offered by the School.

Learners with LV were asked in the questionnaire whether the school environment had been adapted to suit learners suit them, learning and writing materials were in print or tactile, teachers gave extra classes after school, and maps and diagrams being tactile. Most respondents reported that the school environment had been adapted (80%). This was supported by almost all the teachers (96.3%). This environmental adaptation included leveled paths, rumps
painting bright colours on stones marking paths. The respondents also reported that exams and reading materials were either in print or braille (86.7%).

The researcher using the checklist observed that the braillers were few in the resource room. This meant that students did not get enough time for practice. All learners reported that they were provided with braille paper for writing and even magnifiers. However, most learners reported that maps and diagrams were neither in braille or tactile with teachers (96.3) reporting the same. In relation to academic performance, there was no much difference between the number of learners who scored above and below 50th percentile as indicated in figure 4.4 (57% and 58% respectively). All teachers and learners reported that the curriculum had not been adapted to cater for the needs of learners with LV.

4.4 Discussion of Findings

The researcher did a reliability test which was found to be 0.731. Three attributes in the questionnaire were dropped because they were distorting the internal consistency of the data. These attributes included; whether learners with low vision would perform better if they were sighted, would perform better if provided with braille paper and magnifiers to facilitate easier reading and writing, and whether they would perform better if the curriculum had been adapted to suit their needs. The first objective discussed sought to establish the academic performance of pupils with LV. The findings are discussed below.

4.4.1: Academic performance of pupils with low vision

The research findings on academic performance of learners with LV were that,
learners who experienced positive social experiences or faced less challenges at school performed better than those who got negative experiences. They found it easier to socialize and seek academic or otherwise assistance from all categories of learners. They were thus able to compete academically even if they never led in terms of class position. From the findings, it was evident that most of the pupils with low vision performed poorly with 40% of them scoring above 50th percentile and 60% scoring below 50th percentile. The poor performance may have been as a result of poor self-concept which develops as a result of sighted peers not wanting to associate with them and also continuous poor performance.

One thing that came out very clear from the pupils with LV was that their parents never encouraged nor motivated them in their academic pursuits. The pupils also said that their parents never appreciated their academic performance. This is an indication that the learners lacked drive to do well. This is supported by the teachers questionnaire whereby the respondents said that few parents went to school to find out about the academic progress of their children with LV. Some of the reasons the parents gave for not doing so was that they had given up on them while others did not want to be associated with the pupils because of the societal stigma of having a child with a disability. As reflected in the literature review, parents often report that the reason behind sending their children with special needs to regular schools was for them to form social relationships with the regular pupils (Flem & Keller, 2000) and not to excel in academics which the researcher does not agree with. Most learners with low vision will perform well if provided with the right facilities and environment. Pupils with LV who
continuously perform poorly at school end up developing a poor academic self-concept. They view themselves as failures that however hard they try, cannot make it. Encouragement by significant others with kind words, even when they perform poorly, will make them feel secure and confident such that even when the subject being studied is challenging, will work even harder and as a result earn higher grades. Encouraging words reinforces pupils’ belief in their abilities (Freeman, 1997). The contrary will happen if learners with LV are made to feel incompetent.

When asked to give recommendations towards improving the academic performance of learners with low vision in the teachers questionnaire, the respondents recommended that; they be provided with enough facilities, have few of them in a class for maximum attention by the teacher, be given slots in national schools and that policy-makers make clear guidelines on how these group of learners should be educated. The researcher agrees with the respondents’ feelings.

The second objective sought to establish the social experiences of learners with LV with sighted peers and teachers. The findings have been discussed below.

4.4.2 Social Experiences at School (Pupil/Teacher Interaction)

School age pupils with LV often have negative social experiences. Individuals with Disabilities Education Act (IDEA) mandates that children with disabilities be placed within inclusive environments so that they can be educated with their typically developing peers and benefit from the everyday social interactions at school life, but the extent to which children with disabilities benefit from
inclusion depends as much on aspects of the environment as of the child (Zipper & Simeonson, 2005). Environmental factors are reflective of the availability and effectiveness of the social support and acceptance they get. It is worth noting that pupils spend most of their school time at school and how they perceive the school environment in terms of teacher/ peer concern that is likely to affect their social life and academic success at school.

From the findings, the pupils with low vision reported that they felt lonely most of the time. This loneliness may have arisen from the fact that sighted peers and teachers saw them as sighted and therefore, could not understand when in some instances they claimed they could not see (if once, why not all the time, (Freeman, 1997). Peers viewed them as pretenders. Teachers who did not have training in SNE (51.9%) may also hold the same views as peers, failing to pay much attention to their challenges. Loneliness of learners with LV may have arisen from the negative comments from sighted peers. Questions like; why they held books so close to the eyes, wore thick glasses may be quite disturbing to them (Corn & Sacks, 1996). Some of the sighted peers even go ahead and call them names, for example, that they are ugly and have four eyes. Students with LV experience more rejection than students without (Heinrichs (2003) making them lonely. Bullying directed towards these pupils with LV is common as a result of their cognitive, behavioural and or physical differences which make them ‘easy targets’. Bullying can take many forms and rejection can have long lasting effects especially on the self-concept of the learners (Beale & Scott, 2005). For learners with low vision to survive in a sighted world, they will have to decide when to
disclose their visual status and plan how to assure their classmates that they can accomplish tasks with reasonable accommodation to fit into their social class (Corn & Sacks, 1996). Otherwise, if they don’t do this, they will continue being alienated. All these reactions will affect their ability to socialize and subsequently have their academic experiences also affected.

According to the study, most of the pupils with LV preferred being with other visually impaired learners while the sighted learners preferred doing class work, or play with fellow sighted peers. This is in agreement with the previous research as indicated in the literature review that integration does not automatically lead to more social contacts and friendships with children without special needs, as these children prefer to associate with other pupils without disabilities (Guralnick et al., 1995). The normal expectation of integration is that pupils with disabilities will work and socialize with those without. This was not the case as indicated in the findings. Metaphysics of research published from 1990-2000 by Nowicki and Sandieseon, (2002) also concluded that children without disabilities generally preferred to interact with those without either physical or intellectual disabilities. However, the researcher is of the feeling that pupils with LV who are accepted and supported from family level have an increased self-esteem and therefore, able to interact well with the sighted. The interaction will even be heightened if their academic performance is good because they can also assist the sighted in areas in which they excel.

Research on students’ social relations shows students preference to associate with
similar peers, referred to as ‘homophily’ (McPherson, et al., 2001). ‘Homophily’ is based on different dimensions, for example, age, gender, educational attainment, interests or beliefs. Pupils with LV lack the proper qualifications in one or more of the dimensions of homophily. Sighted pupils may shun those with LV because of the difficulties they display, these difficulties relate to inattention to selected tasks, distractibility, impulse control and inappropriate behaviour in social settings, a characteristic of learners with LV (Minnet et al., 1995). The effect is that pupils without special needs flock together and exclude pupils with special needs (Guralnick et al., 1995) making them feel unwanted. The sighted also like to be amongst ‘equals’. This also applies to pupils with LV. The rest of the pupils with LV who preferred being with the sighted peers must have been those who were doing well in class hence high academic self-concept, or those who were made to feel competent by significant others increasing their self-concept, for example, teachers and family among others. This reinforced their belief that they were able (Bandura, 1997). This also made them feel that they had something to offer to their sighted peers because they could assist them in areas they were good at. Social isolation may harm their social-emotional development resulting to low self-esteem, fear of failure, low self-confidence, fear to attend school, deviant behaviour, lack of motivation, low performance on school tasks and result in negative effects like being bullied, dropout and eventually possible referral to special settings.

Most teachers were reported to involve the pupils in classroom activities, for example, involving them in discussions, and assignments. This is an indication
that teachers where not only interested in their academic progress of pupils with LV but also ensured that they interacted with sighted peers. This may have been the reason why most teachers preferred using cooperative and peer teaching strategies as indicated in the findings. These interactions assisted learners not only in learning how to socialize but also in their academic performance because they are able to ask for academic assistance where need be. Some teachers did not involve pupils with LV in class activities. This may also have been due to attitudes towards learners with LV as some viewed them as malingerers and lazy when in some instances they claimed they could not see while in others they could.

Negative attitudes by teachers may also have been due to lack of adequate training or lack of it regarding learners with LV and therefore, felt unprepared to provide services to them (Praisner, 2003). This left them out in some class activities. Teachers feel stressed when working with pupils with disabilities because they do not possess the knowledge or feel competent to handle them (Forlin, 2001), which the researcher agrees with. It is worth noting that school administration and teachers can help create more positive school experiences for pupils with low vision that promote their academic, career and personal/social growth (Nowicki & Sandieson, 2002) given basic training in visual impairments. It is also worth noting that special and regular teachers receive very little or no pre-service training related to effective inclusion of pupils with disabilities (Parvi, 2004). Findings from a previous study indicated that surprisingly special education teachers received less training in this area.
Figure 4.4 clearly indicates that social experiences at school influenced the academic performance of pupils with LV than any other variable. This is clearly visible when one looks at the differences in the height of the bars for those learners scoring above and below 50th percentile respectively. This means that if learners with low vision are to enjoy and reap the benefits of being at school, for example, improved academic performance and full participation in school activities, then inclusion of social skills training in the curriculum is a must.

The third objective sought to determine the role of the family and community on the social and academic experiences of learners with LV. The results are discussed below.

4.4.3 Role of Family/community on the Social and Academic Experiences of Learners with Low Vision

The attributes studied under this variable included; whether parents included learners with LV in all family activities, whether they encouraged and motivated them in their academic pursuit, whether they appreciated their academic progress and whether they involved them in youth activities in the community and competitions. Researchers have linked a family’s cognitive and emotional level and functioning with social competence (Morse, 1991). A stable caring family will make a child who is visually impaired to be confident and especially so if the parents appreciate the child’s efforts in everything.

The respondents were asked whether their families involved them in all family activities. A good number of respondents (66.7%) agreed that they were involved.
Involvement in family activities boosts the self-esteem of learners with LV which is carried to school leading to improvement in academic performance. Lack of involvement in family activities may be due to the fact that parents may not be sure what these learners are able to do or not. This will make the pupils to develop a low self-esteem affecting how they interact with the rest of the family. Parents need to ensure that everyone in the family is a participant in chaos and any other activity not to make these pupils feel special. Childhood rivalry is likely to arise when siblings are not informed why one of them is not given duties and come to hate him/her. Lack of understanding may be because they see this brothers/sisters as sighted because of their unique nature. When it comes to family outings, parents may leave them behind because of societal attitudes to having a child with disability. This is the reason why children with disabilities are found locked up in houses for fear of stigma. There is need to sensitize families on the needs and unique characteristics of learners with low vision.

A good number of respondents (80%) indicated that their parents motivated and encouraged them in their schoolwork. Encouragement from parents will lead to improved academic performance. This disagrees however with previous findings as that most parents’ take their children with disabilities to school not to excel in academics but to socialize with other children. This meant that academic performance is not crucial to such parents. From the teachers questionnaire, the findings were that a good number of parents occasionally picked their children to school with most of the time the children being picked by the house girl. The reasons they gave for this was because they had already given up on the
performance of their children and therefore, no need to go to school. From the same questionnaire, when asked whether parents went to school to discuss the academic performance of the children, the teachers reported that most did. However, almost an equal number of parents never went. The reasons given for this by the teachers included that; some parents did not want to be known they were the mothers to the children, were not interested in their performance while others did not know the importance of checking the progress of their children with LV. It is in the family where children are first socialized and therefore when not appreciated or supported, they are likely to portray negative reactions, for example, withdrawal, maladjusted behaviour and poor self-concept at school. It is, therefore, necessary policy makers to ensure that sensitization programmes and trainings are organized for parents of children with special needs for them to see the importance of supporting their children.

In terms of involvement in community youth activities, a big number of the pupils with LV (78.6%) said they were involved. This was supported by the respondents in the teachers questionnaire where majority of them reported they did. Youth activities in the community included; tree planting and church activities among others. In such cases, learners with LV felt valued. These feelings are carried to school facilitating comfortable stay at school and also improved academic performance. Interestingly, all the respondents disagreed that they were involved in community competitions. To the community, people with visual difficulties are those who use the white cane or adaptive devices. They may, therefore, see persons with LV as pretenders, making their adjustment difficult, which may
affect their stay at school including academic performance. This is confirmed by a story in the literature review of a story told of a father, (Corn & Sacks, 1996) who thought their daughter was malingering when she could not recognize her auntie face across a room yet was able to find her earrings and other items on top of her dresser. The researcher agrees with Corn & Sacks (1996), that at times pupils with LV may feel angry or withdrawn when they have to explain their visual status or their actions to the community and significant others, for example, holding a book close to the eyes. Lack of involvement in community competitions or any other activity leads to learners viewing themselves as useless. This affects not only their self concept but also academic performance at school. This study aimed to fill this gap.

In the teachers questionnaire, the respondents were asked whether the community supported the idea of having learners with VI learn with regular learners. The respondents reported that most community members preferred their children to be in special schools compared to regular schools. This indicates that there is minimal support by the community towards integration of learners with VI in regular schools. Lack of support from community level may make this learners poorly adjusted which will subsequently affect not only their social experiences at school but also their academic performance. The respondents recommended that there is need to sensitize everyone on the needs of learners with LV so that they are accepted and supported in the community.

In relation to the academic performance with low vision as indicated in Figure
4.4, parents and community support is second as far as influencing the academic performance of learners with LV. This means that a learner who is accepted at family and community level will definitely do well in class. A child with low vision who gets all the facilities required for learning, has well-trained teachers in VI but lacks family and community support will not do well academically and is likely to have problems in forming social relations at school and vice versa.

The fourth objective sought to establish the intervention measures by the school towards enhancing the social and academic experiences of learners with LV. The findings are discussed below:

**4.4.4 School Intervention Measures**

Variables discussed in these variable included; school advocacy, organization of remedial classes, and organizing completions at the school and community level. Out of the respondents, 66.7% indicated that there was strong advocacy by the teachers to the sighted peers and school community about their condition and challenges. Advocacy by teachers is important because learners with low vision have a challenge in knowing when they should present themselves as sighted or blind to fit the perception of most people. With advocacy, other learners will be able to understand and assist them when they have academic challenges and also accommodate them in out of class activities. However, not all teachers are able to advocate for their needs because quite a number are not trained in special needs (51.9%) and would also need to be explained to why these learners behave the way they do.
The advocacy by teachers should go further to the community and family so that they may also understand what these pupils are capable of doing and also the challenges they face. This will make the learners feel accepted by the peers, community also the family. However, if pupils with LV are to have positive social experiences which will in turn improve their academic performance, they have to do self-advocacy, in which they must carry out the plan of action and explain their condition to whoever is involved.

A good number of the respondents (66.7%) further agreed that there were organized remedial classes in the schools. As indicated earlier, the classes were given in the resource room. It is in these classes where learners with low vision are assisted in subjects where they have challenges and also assisted in gaining braille proficiency skills. As indicated in the teachers questionnaire, most of the teachers (81.5%) preferred cooperative learning strategies and peer group teaching (74.1%). The researcher supports these methods because apart from learners getting academic advantage, they also get an opportunity to interact with their sighted peers in the process of working together. This further improves not only their social skills but also self-esteem. Few teachers gave these learners assignments (3.7) to do on their own. With most teachers not trained in special needs education, about half (48.1%) of them used I.E.P. The existence of remedial classes was confirmed by the headteachers during the interview who further said that in addition to the remedial classes, they ensured that teachers paired pupils with LV and the sighted so that they could get assistance when they face challenges.
All the respondents (100%) agreed that their schools never organized social activities between the pupils and the community. This means that the schools never played a role in assisting pupils in learning how to interact and form meaningful relationships with peers at community level. The outcome is having pupils with LV feeling left out, developing low self esteem which may affect their academic performance and interaction with peers. The researcher agrees with Gordon (1990) that if pupils with LV are made to feel incompetent even at community level, they are likely to develop tendencies that may only be portrayed though their behaviour, for example, withdrawal, sadness and depression which may affect their academic performance. It is, therefore, very important to sensitize the teachers on the necessity of having pupils with special needs interact with the community.

The fifth objective sought to establish the materials and facilities support to learners with LV offered by the school and how it influences the social and academic experiences of learners with low vision. The findings are discussed below.

4.4.5 Materials and Facilities Support Offered by the School and its Influence on the Social and Academic Experiences of Pupils with LV.

The researcher did a checklist to find out about the school material and facility support towards improving the academic performance of pupils with LV. The findings were that the schools had few braillers kept in the resource room to assist learners who were not proficient in braille use or teach braille literacy to those
learners whose vision was deteriorating and could no longer benefit from large print. This means that they never got enough opportunity to practise the skill. Braille papers were inadequate meaning that learners with LV who needed such support were not being assisted enough. Unsuitable learning materials and educational support for children with visual impairments is seriously lacking in the educational institutions as the “Task Force on Special Needs Education (2003)” going round collecting views on special needs found out. They witnessed a case where students and teachers at certain school for the blind were recycling braille papers in order to re-use them. The Ministry of Education should ensure that schools get such materials together with other materials they distribute to schools for example textbooks. Moreover, the need for braille as a necessary alternative for print creates a challenge for general education classroom teachers to provide invaluable feedback, as very few general educational classroom teachers can read and write braille. Such barriers must be carefully examined and skillfully addressed by practitioners in order to provide genuine and valid access to the general curriculum for pupils with LV.

A few learners used magnifiers for reading and writing. The other learners found it a challenge to replace them once they got lost or got spoiled because they are expensive and most parents could not afford them. Learners who did not have them strained a lot which subsequently affected their academic performance. The physical environment had been adapted especially paths but not desks from the researcher’s observation. It is the feeling of the researcher that most learning institutions and especially integrated schools for visually impaired may in future
not be accessible to many learners with disabilities. The problem is that initial
design of such facilities was not meant for children with disabilities like VI but
regular learners. Many schools are not equipped to respond to special needs.
Environmental barriers such as stairs, passage ways, doors and recreational areas
are common in inclusive school settings.

Most books were not in braille, meaning that the learners had to rely on the sense
of hearing during class time. Although the curriculum had been adapted to suit
learners with VI by Kenya Institute of Education in some subjects, the teachers
used the regular curriculum where they taught as if all learners were sighted
qualifying the reason why all the learners and teachers reported that the
curriculum had not been adapted. The curriculum is one of the major setbacks to
integration of learners with VI in regular schools. Due to lack flexibility, it is,
therefore, unsuitable for a big range of learners. Thus, equal access to quality
education is denied to children who are visually impaired. The researcher
recommends a study to investigate the impact of the areas adapted in the
curriculum on the academic performance of learners with LV. Large print
materials were the most commonly used. From these findings, it is evident that
although school support did not seem to influence the academic performance of
pupils with LV much, it is an important aspect. One problem with pupils with LV
is that, although they may be experiencing problems at school, for example, when
teachers explain diagrams in books without taking them into consideration, they
have a problem advocating for themselves and therefore, continue suffering. The
researcher supports Corn & Sacks, 1996, that pupils with LV are uncomfortable
letting others know about their status lest they become vulnerable to those who may hold negative perceptions of them. More intervention measures are therefore, necessary. The respondents in the teachers questionnaire recommended that integrated schools for learners with LV be provided with the required equipment for the smooth learning of learners with LV.
CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction
This chapter gives a summary of findings by the researcher, and then recommendations towards improving the academic performance of pupils with LV. School is an important context for children’s academic and social development. Everyone accepts that the three Rs- Reading, writing and arithmetic- are fundamental to school success. Teachers regularly provide these basic subjects to promote pupils success, but what about the third, R- Relationships? Are children’s social relationships with peers also important for academic achievement? If so, what connects social experiences to learning and performance at school? The researcher wanted to find out the impact of social experiences on the academic performance of pupils with LV.

5.2 Summary of Findings
The purpose of the study was to investigate the academic and social experiences of learners with LV in integrated primary schools. The findings have been presented in line with the objectives of the study.

The study established that learners with LV generally displayed poorer academic performance as compared to their sighted peers. There are many factors that may contribute to this kind of performance. One of the factors may be the inability of the regular teachers who are not trained in special education to identify learners with LV in class and therefore, not according them the necessary assistance.
Findings on teacher/ pupil interaction and the academic performance of pupils with LV were that those pupils who were accepted by peers and teachers performed better in academics compared to those who were not. It was this interaction that had the greatest impact on the academic performance of pupils with LV compared to the other independent variables.

Families and communities that supported learners with LV in their activities and showed interest in them, such learners performed well at school. The study also found that community and family support was second in influencing the academic performance of pupils with LV. Support given by parents included appreciating their performance and encouraging them, picking and dropping them to school and supporting integrated schools among others.

The study also found that intervention measures applied on learners with LV greatly improved their academic performance. However, the academic performance did not vary much among the two categories of learners suggesting that it was important for all. Intervention measures studied included, remedial classes, involvement in family and community activities and advocacy for learners with LV.

Regarding the school support to learners with low vision, the findings were that learners who were accorded good support performed well at school compared to those who were not. However, school support did not seem to influence the academic performance of pupils with LV as concerned. The findings indicated
that the school curriculum had not been adapted in all subjects to suit learners with LV and therefore, such learners were taught using the same approach as the sighted. The study found that the schools offered organized remedial classes. Study findings were that magnifiers are expensive and when learners lose them, most are unable to replace them.

5.3 Conclusion

From the findings of the study, the following conclusions were made:

1. Most of the teachers teaching in integrated schools for visually impaired learners have no training in Special Needs Education.
2. There are more female teachers than males in integrated primary schools for learners with VI.
3. The academic performance of learners with low LV is lower than that of blind or sighted peers.
4. Social experiences of learners with LV at school influence their academic performance compared to any other factor.
5. The curriculum used in integrated schools for learners with visual is not adapted to meet the learners’ needs
6. Social support by school has the least influence on the academic performance of learners with visual impairment as compared to other factors.
7. Parental/ community involvement is paramount to the wellbeing of learners with LV at school.
8. Most teachers prefer using cooperative learning and peer group teaching strategies on learners with LV as compared to other teaching strategies.

5.4 **Recommendations.**

For students with LV to achieve high levels of academic and social success, the following recommendations must be incorporated into the educational programme for them. Families, teachers and students need to recognize the unique skills that students who have LV must be taught and maintained throughout their formal education. Some of the recommendations include:

- Curriculum developers should incorporate social skills as part of the curriculum for learners with LV. This will help pupils with LV become more socially competent in the following areas: first, develop effective interaction skills which includes social initiations turn taking, gaining entry into a group and using auditory cues to assist with the interpretation of body language. Second, the learners will be able to use a combination of senses to help support and interpret social encounters with peers, family members and asking for assistance when needed in social situations.

- Policy-makers should ensure that all teachers handling learners with LV have basic training in Special Needs Education. Braille proficiency training is mandatory for teachers to assist learners who cannot benefit from large print. The training will assist the teachers in identifying learners with LV for early intervention.

- The policy-makers should ensure that integrated schools for learners with visual impairments have professional counsellors who will assist the
learners with LV in dealing with their emotional challenges that arise from negative social experiences at school, family and the community. The counsellers will also assist learners whose vision is deteriorating to accept themselves

- Educators should reach out to the communities and families to sensitize them on the unique identities of learners with low vision. These unique characteristics include ability to see in some instances and other times not able to see at all.

- Policy-makers should ensure that schools with learners with LV appropriate facilities for supporting this group of learners. These facilities include; braillers, tactile diagrams, large-print materials, audio books among others.

- Policy-makers should scout for donor support towards buying assistive items which may be too expensive for some learners. The government has currently waved taxes on materials and equipment for persons with disabilities. However equipment is still expensive for some parents and stakeholders. Educators should also establish endowment funds to directly assist those victims who are needy.

- Educators, community and even families should organize activities for learners with LV to interact with the sighted. The activities include among others, for example, games competitions, tree planting at school and community. This will boost their social skills and esteem, for example, how to take turns and also getting into an ongoing conversation.
• The curriculum developers should ensure that all subjects are adapted to suit learners with LV so that their academic performance is improved. Currently, not all subjects have been adapted.

Areas for Further Research

• Preference of living at home and day schools over residential schools for learners with LV.

• Turnover of teachers in schools for learners with LV over regular schools.

• Establish why academic performance of learners with LV is lower than that of blind pupils.

• Sighted pupil’s attitudes towards learners with LV.
REFERENCES


Dear Sir/ Madam

**REF: ASSISTANCE IN CARRYING OUT RESEARCH**

The researcher is student at Kenyatta University, taking a master’s degree in Education (Special Education) who intends to carry out a study on the impact of social experiences on academic performance of pupils with low vision in integrated primary schools in Nairobi Province. The findings of the study will assist stakeholders in improving the education of learners with low vision in integrated schools.

The research findings will only be used for the study purpose and will be treated with confidentiality.

Your assistance will be highly appreciated. Thank you in advance.

Yours faithfully,

Anne N. Mbithi
APPENDIX B

Questionnaire for Pupils with Low Vision

Introduction

The researcher is a student of Kenyatta University undertaking a master’s degree in Special Education. The purpose of this questionnaire is to get your views on the impact of social experiences of students with low vision in integrated schools in Nairobi Province. Please read each statement carefully and tick the response that best represents your honest opinion. The information that you will give will be treated with confidentiality and will not be used for any other purpose other than for this research. Your opinion will be of great importance towards the success of this research.

SECTION A

1. Gender; Male ☐ Female ☐

2. Class ☐

Tick the correct response using the following key.
SA-Agree, A-Agree, D- Disagree, SD-Strongly Disagree

1. The school physical environment for example paths and classes have been adapted to suit learners with low vision

2. learning resources and writing materials are either in Braille or large print
3. The teacher gives me extra classes after School or free time

4. The curriculum has been adapted for learners with Low vision

5. Maps and diagrams are tactile

6. I am provided with Braille paper and Magnifiers to facilitate my reading and writing

7. I am lonely most of the time

8. I prefer being with other visually impaired Learners

9. Sighted peers prefer to do class work or play with other sighted pupils

10. Teachers always involve me in school Activities for example class work

11. If I was sighted, I would perform better than I do

12. My parents involve me in all family activities For example outings and family duties
13. My parents encourage and motivate me in my school work

14. My parents appreciate my academic Performance

15. I am involved in youth activities in the Community, for example tree planting

16. The community competitions for all the Including those with visual impairments

17. my school advocates for learners with visual impairments by asking the sighted to assist where we have difficulties in academic subjects or otherwise

18. There are organized remedial classes and individual classes for learners with low vision

19. My school organizes for competitions between The sighted and the visually impaired learners
APPENDIX C
QUESTIONNAIRE FOR TEACHERS

Introduction
The researcher is a student of Kenyatta University undertaking a master’s degree in Special Education. The purpose of this questionnaire is to get your views on the impact of social experiences of students with low vision in integrated schools in Nairobi Province. Please read each statement carefully and tick the response that best represents your honest opinion. The information that you will give will be treated with confidentiality and will not be used for any other purpose other than for this research. Your opinion will be of great importance towards the success of this research.

SECTION A
1. Gender; Male □ Female □
2. What is your highest level of training (Certificate, Diploma, Degree, other, specify)……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………
(b). What other adaptations have been made to suit learners with low vision?

(Tick the appropriate response)

- Physical adaptation, for example, toilets and paths
- Provision of large print reading materials
- Brailled books
- Audio-taped text-books
- Tactile Maps and diagrams
- Magnifiers

6. In your opinion, has this support improved the academic performance of learners with low vision? Yes ☐ No ☐

7. In the following questions, tick the correct response using the following key;

   A- Agree
   SD- Strongly Agree
   D- Disagree
   SD- Strongly Disagree

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   a) During free time, learners with low vision prefer being alone ☐ ☐ ☐ ☐
   b) Learners with low vision do assignments alone ☐ ☐ ☐ ☐
   c) During free time, learners with low vision play with other learners with low vision ☐ ☐ ☐ ☐
   d) Learners with low vision score better in tests than sighted peers ☐ ☐ ☐ ☐
   e) Learners with low vision score better in assignments they do with sighted peers than when they do alone ………………… ☐ ☐ ☐ ☐
8. (a). Do parents of learners with low vision come to discuss about their academic performance and share any other relevant information with you?

Always □ Occasionally □ Never □

(b). Explain your response above.

9. Who commonly picks the child after school, for example, house-girl, parents, goes home with classmates.


10. (a) Does your school take part in community activities, for example, tree planting exercises? Yes □ No □

(b). Are learners with low vision included on these exercises?

Yes □ No □

11. Does the community support the idea of having learners with visual impairments learn with sighted peers? Yes □ No □

Explain your response………………………………………………………………………………………………………………………………………………

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12. What intervention measures have you employed to ensure that pupils with low vision perform well in your subject (you can give more than one answer)

Give remedial classes to those not performing well □

Encourage cooperative learning strategies □

Peer group teaching □
Give assignments to mark the following day  

Develop an Individualized Education Programme  

13. What recommendations would you give to policy makers towards the improvement of social skill and academic performance of pupils with low vision in learning institutions …………………………………………………………………………………
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14. What is your opinion towards inclusion of socialization of learners with visual problems in the curriculum?
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THANK YOU
APPENDIX D

HEADTEACHERS INTERVIEW SCHEDULE

1. What challenges do learners with low vision face while at school?

2. What have you done as a school towards improving the academic performance of learners with low vision?

3. What adaptations have you done to ensure that learners with low vision are as comfortable in school both inside and outside the classroom?

4. Do parents of learners with low vision come to school to find out about their wellbeing and also academic performance?

5. What are you doing as a school towards improving social experiences of learners with low vision at school?
APPENDIX D

SCHOOL SUPPORT CHECKLIST FOR LEARNERS WITH LOW VISION

Availability of-

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Braille

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Magnifiers

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Brailed teaching resources

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Large print books/materials

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Adapted drawings

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Adapted Curriculum

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