AN INVESTIGATION OF FACTORS INFLUENCING KCPE PERFORMANCE OF VISUALLY IMPAIRED PUPILS IN INTEGRATED PUBLIC PRIMARY SCHOOLS IN URIRI SUB-COUNTY, MIGORI COUNTY, KENYA

BY

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AN INVESTIGATION OF FACTORS INFLUENCING KCPE PERFORMANCE OF VISUALLY IMPAIRED PUPILS IN INTEGRATED PUBLIC PRIMARY SCHOOLS IN URIRI SUB-COUNTY, MIGORI COUNTY, KENYA

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2022

DECLARATION

Declaration by the candidate

This is an original study having previously not considered for any academic award in this institution or elsewhere.

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DEDICATION

My study is dedicated to John Hillary Ochieng and Margret Ochieng as beloved parents.

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My acknowledgement goes to my research advisers Dr. Nick Namunga and Dr. Richard Ongowo and department of educational psychology for their advice, my beloved Children John Hillary and Joy Noelene and siblings Tom Hillary, Fred Ochieng, Caroline, Sophy, Everline and Winnie for their moral and financial support.

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Finally, to the almighty God for his continuous blessings and life.

ABSTRACT

Provision of primary education to all children is necessary in all nations all over the world. However, provision of inclusive education to pupils with visual impairment in Kenya remains a serious challenge. In the Kenya's national examination, the mean score performance of the visually impaired pupils over the years from 2013 to 2018 were 249.29, 246.30, 241.74, 249.06, 246.49 and 246.39 marks out of 500 marks respectively. The below average performances has motivated the need to conduct this study. Therefore, this study sought to investigate the factors influencing KCPE performance of visually impaired pupils in integrated public primary schools in Uriri sub-county in Migori county, Kenya. Specifically, the study investigated the influence of teachers' attitude, parents' attitude and instructional practices on academic performance of the visually impaired pupils integrated in public primary schools. Vygotsky's Social Cultural Development theory was used to provide foundation of the study. Descriptive survey research method was adopted. Saturated and purposive sampling was used to select the population of the study which consisted of 3 head teachers, 28 teachers and 23 parents, giving a total of 54 individuals for the candidate classes of 2017 and 2018. Data was obtained using questionnaires, interviews and secondary materials. Validity of the instruments was determined by expert judgement. Piloting was done in two of the integrated primary schools in the neighboring sub-county to determine the reliability of the instruments. Cronbach's reliability coefficient above .70 was considered for further analysis. Analysis of data was performed using SPSS version 20. Data were analyzed using descriptive and inferential statistics and the qualitative data from interview schedule as emerging themes. Results indicated teacher attitude had a positive moderate significant influence ($r= .537$, $p< .05$), parent's attitude had a positive weak influence which was not statistically significant ($r= .243$, $p< .05$), and teacher's instructional practices had a positive strong significant influence ($r= .697$, $p< .05$). Based on odds ratio, instructional practices had the greatest value of 13.125 followed by teachers' attitude with an odds ratio of 3.337, and parental attitude had the least odd ratio of 1.5. This implied that instructional practices had the greatest impact on the performance of pupils with visual impairment followed by teachers' attitude. Parental attitude had the least influence which was not statistically significant. The study concluded that instructional practices and teachers' attitude are key drivers of academic achievement and parents' liking of pupils with visual impairment should be enhanced as reflected by the ratings. The study is significant to education policy makers, planners and implementers on how to mount conferences and workshops to impart knowledge on attitude change, will help teachers and other stakeholders change their attitude towards pupils with visual impairment and lastly give baseline to future researchers to carry out further research on the same topic. Based on the study findings, teachers and parents need to be more positive and close to the children and effort should be made to ensure that instructional practices are made more conducive for learning and teaching.

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ABBREVIATIONS AND ACRONYMS

BEDC	–	Basic Education Development Committee
SCEO	–	Sub-county Education Office
EFA	–	Education for All
FPE	–	Free Primary Education
IE	–	Inclusive Education/Integrated Education
ISEC	–	Institute for Social and Economic Change
MOEVT	–	Ministry of Education and Vocational Training
SDG	–	Sustainable Development Goals
UPE	–	Universal Primary Education
VI	–	Visual Impairment

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CHAPTER ONE

INTRODUCTION TO THE STUDY

1.0 Introduction

This chapter puts the study in its perspective. Specifically it covers background of the study, statement of the problem, purpose of the study, objectives of the study, null hypothesis, assumptions of the study, scope and limitations of the study, significance of the study, theoretical framework, conceptual framework and operational definitions of key terms.

1.1 Background to the study

Globally at least 2.2 billion people have a near or distance vision impairment. In at least 1 billion- or almost half – of these cases, vision impairment could have been prevented or has yet to be addressed. Among the estimated 1 billion people includes those with moderate or severe distance vision impairment or blindness due to unaddressed refractive error, glaucoma, corneal opacities, cataract, diabetic retinopathy, and trachoma, as well as near vision impairment caused by unaddressed presbyopia (World Report on Vision, 2018). In terms of regional differences, the organization reports that the prevalence of distance vision impairment in low – and middle – income regions is estimated to be four times higher than in high – income regions. Also, with regards to near vision, rates of unaddressed near vision impairment are estimated to be greater than 80% in Western, Eastern and Central Sub – Saharan Africa, while comparative rates in high – income regions of North America, Australia, Western Europe, and of Asia – Pacific are reported to be lower than 10% (World Report on Vision, 2018). WHO (2018) says experience of visual impairment is influenced by movement within the environment and information.

World health organization (2018) classifies vision impairment into two groups, distance and near vision impairment. Distance vision impairment is categorized into; Mild (visual acuity worse than 6/12 to 6/18 to 6/60), Severe (visual acuity worse than 6/60 to 3/60), and Blindness/Profound (visual acuity worse than 3/60) whereas near vision acuity include near visual acuity worse than N6 or M.08 at 40 cm. A person's experience of vision impairment varies depending upon many different factors. The factors include for example, the availability of prevention and treatment intervention, access to vision rehabilitation (including assistive products such as glasses or white canes), and whether the person experiences problems with inaccessible buildings, transport and information.

However, there are different approaches around the world to providing education for people with disabilities. The models adopted include special schools and institutions, integrated schools, and inclusive schools. Across European countries 2.3% of pupils within compulsory schooling are educated in a segregated setting – either a special school or a separate class in a mainstream school. Belgium and Germany rely heavily on special school or a separate class in which children with special needs are separated from their peers. Cyprus, Lithuania, Malta, Norway and Portugal appear to include the majority of their students in regular classes with their same – age peers. A review of other OECD countries shows similar trends, with a general movement in developing countries the move towards inclusive schools is just starting. The integration of children with disabilities in regular schools – inclusive schools – is widely regarded as desirable for equality and human rights (UNESCO, 2001).

Approaches used to handle various disabilities include special, integrated and inclusive education. OECD (2007) and UNESCO (2001) say that in European countries such as Belgium and Germany, pupils with special needs are taught in a differentiated setting – either a special school or a separate class in a mainstream schooling while Cyprus, Lithuania, Malta, Norway and Portugal include learners in regular classes, and in developing countries integrated schools has not so much picked up.

Integrated Education System was affirmed during the Jomtien Declaration in Thailand in 1990 for the youth and adults despite their mental or physical disability by reducing or removing barriers within and around the school so that pupils might experience meaningful learning (UNESCO, 2009). The goal can be realized either through full inclusion or integrated approaches.

It is there evident that integration is not easy and integrated pupils vary in various countries. Hence the need for the current study on Kenya Certificate of Primary Education (KCPE) performance of the visually impaired pupils in Uriri Sub-county.

Education in Africa has greatly evolved from the informal thinking and methods of teachings to formal curriculum based on reading, mathematics and science and technology to cope with life dynamics. Integrated education is lowly developed in Africa and other third world nations (Kiarie, 2006; Mutua & Dimitrov, 2001). In Kenya, similar to some parts of sub-Saharan Africa, children born with disabilities are not taken to school (Mungai, 2002 & Munyere 2004).

Since 1963 Kenya has made a lot of developments towards people with disabilities, for example re-introducing free primary education (FPE) and sending more money to

schools to increase accessibility to education and better educational opportunities (Oketch & Rollestone,2007). However, low enrollments for pupils with disabilities still persist because of lack of proper policy implementation in schools, low government funding, training for special education stakeholders, and unfavorable evaluation tools. The low enrollment is a negative indication of fewer students with disabilities completing secondary education (Nyeris & Koross, 2015).

In Kenya, development of integrated education is attributed to early Christian churches which availed the much needed care and special education to people with disabilities such as visual, deaf, mental, physical and intellectual. Churches like Salvation Army, Lutheran, Friends and Catholic among others have contributed positively towards the areas of disabilities (UNESCO, 1994). Non-Governmental Organization (NGOs) have also provided medical care, food and other facilities (UNESCO, 1994). Kenya Institute of Special Education (KISE) established as an organization under the Ministry Of Education (MOE) boosted the efforts of the church through teacher training and support in instructional materials for pupils identified with disabilities (KISE, 2016). Further efforts to enhance integrated education involved several organizations such as the Kenyan Union of the Blind, providing the ground to develop policies and ensure that people with disabilities received improved opportunities in education, employment, and recreation (Opini, 2010).

Kenya is a signatory to the Salamanca Declaration (UNESCO, 1994), which affirmed that every child has unique characteristics, interests, abilities, and learning needs and provision of free education to pupils identified with disabilities to ensure that they achieve their potential, to the Education for All (EFA; UNESCO, 2000) goals in Dakar

to improve access to education for marginalized people with disabilities, thus demonstrating a commitment towards integrated learning and to the rights of persons with disabilities (UN, 2006). Being a member in all these treaties shows a commitment from the government towards inclusion of people with disabilities, protecting their rights, ensuring access to appropriate education services, and valuing their abilities in Special Education in Kenya.

Furthermore, the, adoption of the 2010 Constitution (Republic of Kenya, 2010) advocated for non - discrimination based on disability (Murray, 2015). Vision 2030 has the sole purpose to enhancing the quality of life for its citizenry through education and training and the development of programs for students with disabilities (Republic of Kenya, 2007).

The Ministry Of Education developed the Special Needs Education policies to ensure students with disabilities receive equal access to special education services and to achieve Education For All (EFA) through adequate assessment and intervention, advocacy and awareness creation, capacity building and development, research and documentation, and use of specialized facilities and technology.

Pupils with mild and moderate visual impairments largely receive instruction in special schools or special units in the general education schools and through few cases of integration into general education schools, Elder et al. (2016). However, special education in Kenya faces challenges hence the great emphasis of their training. Teacher training in Kenya falls under early childhood development and education (ECDE), primary teacher education, diploma education, and graduate teacher education. Special

education courses for teachers that range from Braille courses to Kenyan Sign language (Republic of Kenya, 2012). There are fairly small numbers of trained teachers in special education, posing a major obstacle toward ensuring all pupils receive high-quality educational opportunities.

Integrated is therefore defined as a process of adjusting the home, the school, and the society so that all people, regardless of their differences, can have the opportunity to interact, play, learn, work and experience the feeling of belonging and experiment to develop in accordance with their potentials and difficulties. It is an approach in which pupils with disabilities and special needs, regardless of age and disability, are provided with appropriate education within regular schools. Despite more teachers being employed, teachers' salary increased to motivate them, improved school learning infrastructure through Constituency Development Funds (CDF) and provided and distributed free text books, large class sizes, high teacher-student ratios, limited teacher training, cultural perceptions, and underdeveloped identification and assessment procedures have hampered successful integration to be realized. The current study sought to unravel causes of poor performance of pupils with visual impairment.

Despite the numerous government initiatives and teachers' efforts to improve education, pupils with visual impairment in Uriri Sub-County still remain below average (Sub-County Director of Education, 2019). This puts into question the influence of teachers' attitude, parents' attitude and instructional practices on academic performance. Table 1.1 shows the performance of pupils with mild and moderate visual disability in the primary schools in Awendo, Suna East and Uriri Sub-Counties.

Table 1.1 K.C.P. E Performance of pupils with Visual disability in Awendo, Suna East and Uriri Sub-Counties from 2013 to 2018

	Awendo	Suna East	Uriri
Year	**Mean score**	**Mean score**	**Mean score**
2013	253.13	259.50	249.29
2014	252.94	259.23	246.30
2015	252.46	250.35	241.74
2016	251.79	257.19	249.06
2017	253.97	255.66	246.49
2018	254.34	259.38	246.39
Average	**253.12**	**256.89**	**246.55**

Source: Awendo, Suna East and Uriri Sub-County Education offices (2018)

From Table 1.1, it is seen that Uriri Sub- County have continued to record low mean score in K.C.P.E Examination during the period of 2013-2018 compared with the mean scores of the neighboring Sub-Counties of Awendo and Suna East. Uriri Sub-County hardly attained mean score of above 250, thus raising concern of factors influencing academic performance. The performance was considered to be average when the mean score is above 250 marks and below average when the mean score is less than 250 marks out of 500 marks. The analysis in Table 1.1 formed the basis for this study which was to explore factors influencing academics in integrated schools in Uriri, Migori, Kenya.

1.2 Statement of the problem

Pupils with sight problems in Kenya for many years have not given adequate attention with regard to their education. These children like their counterparts, have a right to free and compulsory basic education as provided for in international conventions to which Kenya has committed to be a signatory as well as in legal and policy frameworks in the country. Providing education for children with special needs is therefore one way of ensuring that their right to basic education is protected. This will in turn promote national development by providing a secure environment that enhances good health to allow people with special needs participate in social, economic and political activities.

Good academic performance is of utmost importance to the society since this will enable pupils realize their potential in life as significant members of the society. The performance in Uriri sub-county remains below average as indicated by mean scores when compared with the neighbouring Sub –counties of Awendo and Suna East for a six- year period. This performance remains poor despite studies that have documented causal factors.

If this trend of performance is not checked, the pupils may not realize future full potential. There was therefore need to find out if teacher attitude, parental attitude and instructional practices are contributing to this poor performance.

1.3 Purpose of the Study

The research explored teachers, parents and instructional practices influencing KCPE achievement in integrated primary schools in Uriri, Migori, Kenya.

1.4 Objectives of the study

The study specific objectives were to: -

i. Find out influence of teachers' attitude on academic achievement of visually impaired pupils.
ii. Investigate influence of parents' attitude on academic achievement of pupils with visual disability.
iii. Examine effect of instructional practices on academics of visually impaired pupils.

1.5 Research hypothesis

The study was based on the following null hypothesis;

H_{01}: Teachers' attitude has no statistically significant influence on academic performance.

H_{02}: Parental attitude has no statistically significant influence on academic performance.

H_{03}: Instructional Practices has no statistically significant influence on academic achievement.

1.6 Significance of the study

Education stakeholders will address challenges facing integrated primary schools and encourage the organizing of seminars and workshops to create awareness to teachers and parents on factors influencing learning of pupils with visual impairments. Finally, Kenya Institute of Curriculum Development (KICD) will find it useful in adapting primary school education and the environment.

1.7 Scope of the study

The research investigated performance in three integrated primary schools in Uriri using three head- teachers, twenty eight teachers and twenty three parents of pupils with visual impairment. Attitude of teachers and parents and instructional practices were the focus of the investigation. Data was obtained from self- administered questionnaire and interview guide. Pupils with mild and moderate visual impairment in integrated Primary schools were the main subjects of concern.

1.8 Limitations of the study

Focused on views and experiences by teachers and parents. Furthermore, since a selected number of respondents, the findings were also limited to what the respondents knew. Consequently, might not be generalized to the whole country. During data collection, the challenge was that some respondents found it difficult to give honest responses, to overcome this problem, the researcher had to plead and convince the respondents to participate honestly.

1.9 Assumptions of the study

The research assumed;

i. Accurate and honest responses was given by the respondents.
ii. Similar curriculum was offered in all schools.
iii. K.C.P.E was a standard tool of measurement, and teaching and learning resources were adequate and used.

1.10 Theoretical framework

Lev Vygotsky (1978) developed a Social Cultural Development theoretical framework for understanding the educational issues where by pupils acquires strategies of emerging problems. Theory considers society as place of character development. Related to current study, teachers' attitude, parents' attitude and instructional practices emanate from and are part of society and its culture. This theory therefore gives social and cultural factors influencing academic performance. Vygotsky's theory sees learning and teaching as active activities involving pupils and teachers. The key principle of the theory is that child's development occurs through interaction with others. Interactions occur through instructional activities between the teacher, pupil and curriculum. Children require mediation from others before they learn on their own, in a process called scaffolding. In this study mediation refers to teaching which is influenced by teachers' attitude and instructional practices and supported by parents.

In relation to integrated schools, pupils need assistance from teachers, parents and peers. The theory is diagrammatically presented in the figure below;

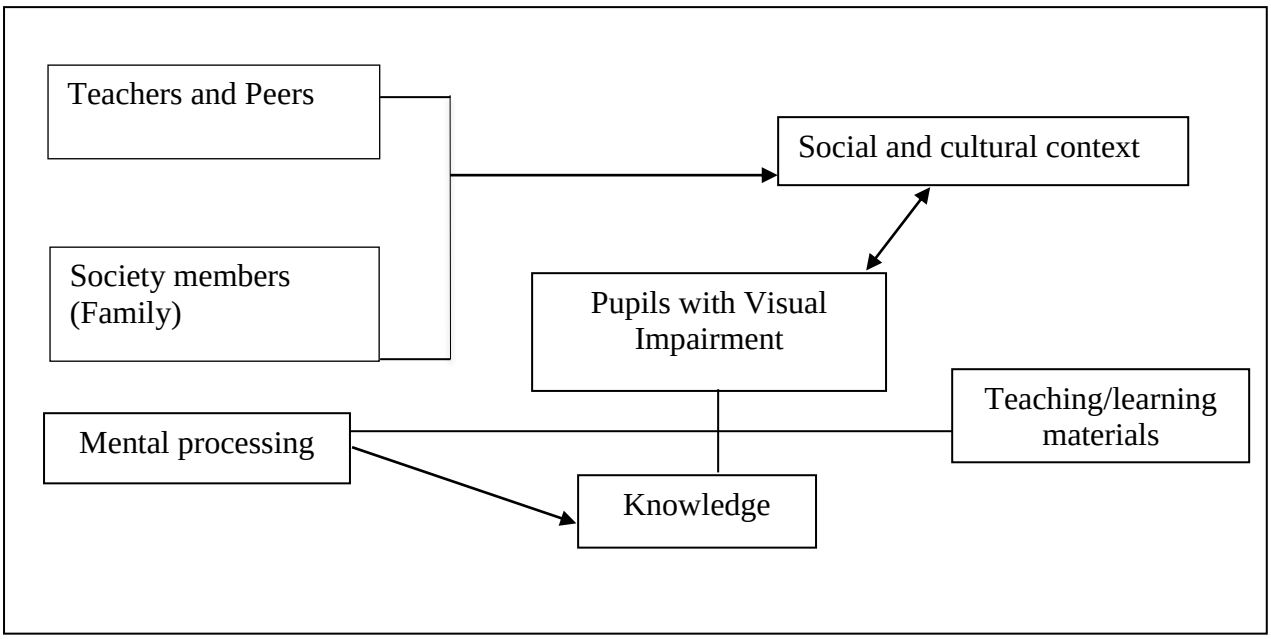

Figure 1.1: Vygotsky Social Cultural Model
Source: Vygotsky (1978)

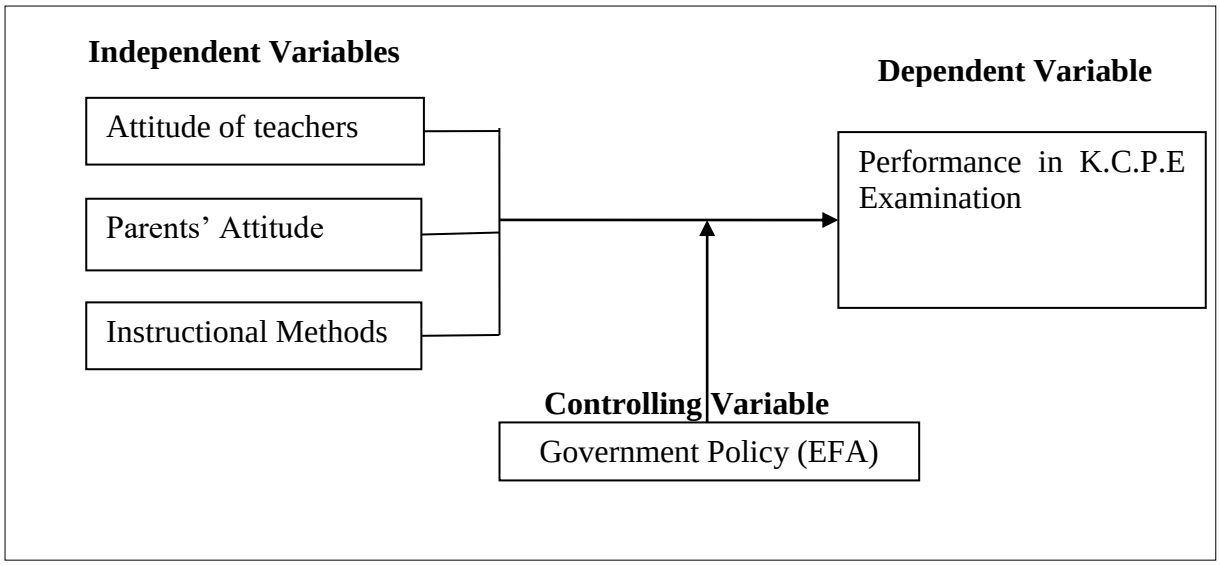

Figure 1.2: Conceptual framework displaying the variables and their relationships.
Source: Researchers' own conception.

1.11 Conceptual Framework

Independent variables include teachers' attitude, parental attitude and the instructional practices. Academic performance as expressed in K.C.P.E marks is the dependent variable, which is the output. The factors in the leaning space that can negatively affect learning and limitation can be eliminated if community resources are put together in good use.

Intervening variables which controls this study is the children's Act (2001; 2013) which is important as it spells out education as a children's basic right which provides for compulsory primary education. Therefore, all teachers are expected to strictly adhere to them.

1.12 Operational definition of terms

The following terms have been conceptualized as follows:

Academic performance: It refers to the extent to which a pupil contributes to achieving the goals of his / her institution. For this study, it refers to the achievement

level of a pupil with visual impairment which is measured by the 2017 and 2018 K.C.P.E examination either using average marks in a given subject for pupils with visual impairment or total marks attained by a pupil with visual impairment.

Integrated education: This is where pupils with special needs learn and or are taught within the regular education setting.

Inclusion: Pupils with visual impairments in education settings to study together with their sighted peers and who have to be supported equally according to their needs.

Integration: Enrolment of pupils with visual impairment in regular education through adapting to existing structures without demanding changes in the curricular provision.

Impairment and disability: A situation or loss of some body's functioning that makes a pupil to struggle to fully participate in the integrated setting.

Instructional practices: It is the internal surrounding of the school where learning takes place. In this study, it involves all that takes place within the classroom.

Parents' attitude: This is the inward feeling of a parent towards his/her child with visual impairment.

Teacher's attitude: This is the inward feeling of a teacher towards a pupil with visual impairment in the learning environment where he/she works

Teaching and learning resources: These are materials that are used in the instructional process with visually impaired pupils (VI). They include both human and materials (talking watches, closed circuit television, large printed books, magnifying glasses and many others).

Visual impairment: refers to pupils with low and moderate vision acuity. Such pupils are able to read print or enlarged font with magnified or optical devices.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Reviewing related studies covered teachers' attitude, parents' attitude and instructional practices on pupils' academic performance. Literature review enabled the researcher to establish knowledge gap.

2.1 Teachers' attitude and academic performance

A research done by the Institute for Social and Economic Change (ISEC; 2006) indicates that the barriers to effective integrated learning were attributed to negative attitude, illiteracy, lack of priorities, rigid system, lack of trained personnel, poverty and lack of effective policies. Teachers attitude notably affect the performance of the special needs pupils due to the fact that they make the decisions, that affect the role they play and the pupil's performance. The attitude of teachers in particular plays a dominant role in affecting the self – esteem and adjustment of students with visual impairment. Familiarity with the diverse needs of individuals with visual impairment, coupled with other factors affects teachers' attitude.

Jayaprada (2012) identified teachers' attitude towards integrated education while addressing the needs of visually impaired students in Amhara National Regional Estate in Ethiopia. Using twenty five teachers of English in integrated school setup, and analyzing data through descriptive statistics, T-test and ANOVA reveals that teachers' attitude affects integrated education. The previous study was based on attitude of teachers towards integrated teaching whereas the current study was based on the general

performance of pupils with visual impairment in Kenya Certificate of Primary Education (KCPE).

A qualitative research study carried out by Samoah, Ofori – Dua, and Cudjoe (2018) on integrated education in Ghana using a sample of twenty-three visually impaired students, twenty seven sighted ones and nineteen teachers in integrated schools through semi-structured interview and concluded that visually impaired students' and teachers' attitude and support was crucial in the success of integrated education. The current study used a sample of twenty eight teachers, three head-teachers and twenty three parents, whereas the previous study used a sample of twenty three visually impaired students, twenty seven sighted students and nineteen teachers.

Dimitrova – Radojichik (2016) using a sample size of 30 students and a questionnaire to find out the impact of training of typical students' knowledge and attitude towards pupils with blindness and visual impairments in the public school for rehabilitation of children and young people with visual impairment in Dimiter Vlahov' in Skope Republic of Macedonia and observes that many of the challenges of integration of children with blindness and visual impairment can be avoided or reduced if pupils have prior information about their visual impairment and blindness. The previous study included both visually impaired students and students with blindness whereas the current study based its argument only on the visually impaired pupils.

Moberg (2003) carried out a study on Factor analysis extracted four attitude dimensions and the results indicate that teachers' attitude is important in developing integrated

school systems. The previous study was based on the education for all whereas the current one looked at academics of the integrated institutions.

Oluremi (2015) conducted a study in public secondary schools using descriptive survey, 10 out of the 35 schools and 200 teachers selected using simple random sampling and stratified sampling technique, and using Questionnaire and examination records in data collection and percentages and T-test. Analysis indicates that positive attitudes to students with special needs promote integration in education. The previous study was in a public secondary school whereas the current research was in a primary school.

A similar descriptive survey study was carried out in Osun State in Nigeria by Ogiriama, Onyiyeche and Oyeniran (2017) using a sample of 100 teachers. The data was analyzed using percentages; mean, inferential statistics of rank order, T-test and ANOVA. Study revealed that positive attitude enhances integration. The previous study based its argument on the use of assistive technologies whereas the current study three factors influencing performance.

Teachers' positive attitude and adequate understanding of stereotypes and prejudices related to disability requires that these pupils are not only thought of with great sympathy, but are viewed more positively, in terms of their capabilities other than their disability, meaning disability is not inability and each individual should have equal opportunity to excel.

2.2 Parents' attitude and academic performance

Family has a very basic and fundamental function in the upbringing of children (Relvas & Vaz, 2007). From the systemic theory, family insert cultural and communitarian

contexts that affect the pupils (Shaffer, 2005). Children have their first relationship experiences from family, Laible et al. (2004). Experiences within the family are unique and greatly vary, thus making the relationship with parents and other family members crucial to the child's social development, Laible et al. (2004).

A parent attitude towards a pupil with special needs is largely dependent on environment in which they live. Therefore, the attitude should be based on the principle that changing the situation in the environment can change the attitude. In most families, the expectation is to give birth to healthy babies, when this expectation fails, they go through a state of shock, denial, depression and acceptance (Shaduma, 2004). Pupils with visual impairment if given a chance to learn can be productive members of the society, though some people see them as unable group. In Kenya, like in most parts of Africa, disability is associated with real cause to sin, evil eye, curse, misdeed in previous life by parents, misfortunes and witchcraft.

Oliver (1981) believes the way to deal with disabilities in the society is to change what people do, know and what people think. But ways of thinking influence ways of living and doing. The family provides the much-needed support both socially and economically that are significant for the pupil's development and academic performance. Parents who are certain that they are able to make a difference are more probable of planning events and partake in events that entail their active involvement.

A study by Kara and Columa (2013) using a sample of 11 parents of pupils with visual impairment who participated on one semi –structured interview and then analyzed through a constant comparative analysis reveals that a parent's attitude greatly affects

integrated education. Previous study used parents while the current study used parents and teachers as respondents.

Ferial, Abeer and Uchechukwu (2019), and Augestad and Elmer (2016) also did a study on self-esteem concept using a cross-sectional design and a Questionnaire. And found out that parenting style was important in enhancing personal satisfaction. Previous study considered the effect of one's perceptions on visually impaired children and young adults whereas the current study focused on three factors influencing academic performance of class eight pupils.

Boer and Munde (2014) conducted a study with an objective to find out the attitude parents have towards the integration of the profound intellectual disability (PMD) in primary schools education. 190 parents were randomly sampled for the study and responded to a self-report questionnaire. Descriptive statistics and ANOVA analysis indicate that parents' attitude has profound influence in integrated education. The previous study used questionnaire whereas this one used questionnaire, document analysis and interview schedule which gave an elaborate data for verification.

Yadav & Mishra (2015) carried out a study on parents' attitude to integration of visually handicapped children in Lucknow City. The study population consisted of Sixty parents, the data was coded, tabulated and analyzed using frequency, percentage, mean, standard deviation, ANOVE to find differences parents attitude to integration of visually handicapped children. The study took a period of one year. From the findings it was concluded that the non-significant was found parents' attitude to integration of visually handicapped children in Lucknow City. In the previous study sixty parents were used

as the respondents while in the current study three Head teachers, twenty eight teachers and twenty three parents giving a total of fifty four respondents was used.

Zelalem (2002) carried out a study on the attitudes of parents towards their blind children; A case study in Bahir Dar town. Data was collected using an in depth interview where seven parents were used as respondents of the study. Qualitative research was employed. The study revealed that parents expressed different reaction as a result of having blind children. The previous study was carried on the blind children while the current study was carried out on the visually impaired pupils.

Hussain, (2006), Kernan, Borgat& wheat (2011) say academic success of pupils with visual impairment can be enhanced if parents are concerned and properly guide them. Those parents who are better in education level have positive perception about their blind children and play positive role in the overall personality.

2.3 Instructional practices and academic performance

Education impacts observation, reflection, logic, problem solving and communication skills making it an important mental discipline and a vital component in development, Imoko and Agwagah, (2006). Both industrialized and developing countries endeavor to improve the levels of academic achievement in schools. Elekwa (2010) remarks that students exhibit poor academic performance. Many reasons have been cited for this; and instructional practice is an important consolidation. Butty (2001) study has shown that the mode of instruction impacted on students' performance.

Hiebert and Grows (2007) argue that the nature and quality of instructional material, presentation of content, pedagogic skills of the teacher, learning environment and motivation of the pupil's s are all important to ensure quality in teaching-learning as an effort to improve pupils' academic performance examinations. It requires pupils to examine and engage with challenging content by managing the cognitive load and enabling a more interactive, exploratory path into difficult teaching and learning, Kaput et al. (2007). Changes in instructional methods/strategies in education are therefore important in classroom practices. A teacher should use the teaching methods, strategies and pedagogic resources that are appropriate and fruitful in gaining adequate and relevant positive responses from the pupils.

Emphasis on use of appropriate instructional teaching practices and activities in Kenyan schools becomes more urgent considering the teacher- centered and dominated approach to schooling. Schools in Uriri sub-county post consistently poor performance in KCPE by the visually impaired pupils. It is imperative to assess instructional approaches and students' achievement in academics.

Several studies have confirmed that instructional practices affect pupils' academic performance. Children with Visual Impairment just like all other children can also be influenced by the instructional practices such as decorations and arrangements of the rooms, lighting, and listening conditions, (Webster & Roe, 1998).

The three principles of universal design for learning help teachers to handle all pupils, motivate pupils as well as use various methods of teaching (Convey et al., 2013; Courey et al., 2013; Mcguire, Scoth and Shaw, 2006). According to Palmer (2005) and Webster

and Roe (1998), pupils can improve performance if listening environment is adapted by arranging the classroom well, using of different teaching strategies; pupils with low vision should be placed in a position where they can see well and providing enough teaching and learning resources.

Ineke, Janssen and Minnaert (2018) carried out a study on the need for Support on visually impaired students, while using teachers and student's perceptions in Netherlands Secondary Schools using purposive sampling to sample 7 teachers and 48 students respectively, responding to questionnaires. Descriptive statistics method was also used. The outcome of the study showed that teachers should understand individual students and adjust teaching approaches. The previous study used questionnaire only in collecting data whereas this study used questionnaire, document analysis and interview guide.

Jane and Jones (2017) studied integrated education at Southern Missippi University to determine the experiences of students with blindness and teachers. Descriptive data indicates that developing a sense of self, use of support structures, desiring a sense of normalcy and responding to barriers were key in integrated learning. The previous study looked at students with blindness whereas the current study looked at pupils with visual impairment.

Diaz, Hoag, Shasteen, Schade and Lawin (2016) conducted a study on visual impairment in Youngstown state University in the USA using sample of 180 tenth grade students and their parents and a Questionnaire to gather information. Descriptive statistics was also used. The study predicted the outcome that the level of parent's involvement affects the academic of their children. performance. The previous study

based its arguments on the perspective of educational experience of students with visual impairment whereas the current study based its arguments on the factors influencing academic performance.

Korir (2015) carried out a study on problems of integration in schools using students with and without visual impairment and teachers as the target population. The study used a total of 200 participants. Both qualitative and quantitative data analysis was used. It was revealed that problems of integration included: being seen as a burden to school, lack of necessary learning materials and poor evaluation policy. The previous study was in a secondary setup while the current study was in primary schools with integration programs.

Twum, Mprah, Edusei, Ampratwum, Gyamfi (2018) in a research they carried out on the use of the white cane at Wenchi Senior High in Ghana. Qualitative and quantitative approaches were adopted and study reveals that student's level of cognitive development influenced using the white cane in schools. The previous study looked at the use of white cane by the students with visual impairment whereas the current study looked at the factors influencing academic performance.

Luque, Leonidas, Kira and Brandao (2018) carried a study on the integrated education programs in Brazil. Survey method was used, 56 computing educators and 19 visually impaired pupils were the respondents and Questionnaire as the research instrument. The study revealed that limited knowledge on integration was the greatest impediment in schools. The previous study was done in Brazil which has a different background as in Kenya.

Ayub, Mkanibwa, Romed and Ndekwa (2017) studied challenges of open and distance learning for the blind in Ruaha Catholic University, Iringa in Tanzania. Secondary data was used. Content analysis was also adopted. It was found that integration at university is poor due to negative social view and inadequate resources. The previous study was carried out at the university level whereas the present study was carried out at the primary level.

Silman, Yaratan and Karan Filler (2017) conducted a study on the use of assistive technology for teaching and learning for pupils with visual impairment in the Cyprus Turkish Blind Association in North Cyprus. It was a case study. Participants of the study was sampled using purposive sampling which comprised 1 administrative, 2 teachers and 2 students. Collection of data was through semi – structured interviews. Qualitative method was used. The study argues that the use of assistive technology enhances integration in education. The previous study was at institution of higher learning whereas the current one was in integrated primary schools.

Onukwo (2004) notes that a conducive environment enhances a child's growth and development. Farrant (1994) states that special Education needed special teaching facilities, resources and special trained teachers. This calls for enrichment of the class and modification of experiences to promote a good learning atmosphere experience for these pupils (Kilei, 2009). Nyaronga (1986) advocates for a learning environment with rich teaching and learning resources and diversified strategies of teaching. The teaching approaches should overcome barriers to learning and development in learning (Otiato, 2002).

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

The chapter described and presented study design, study area, target population, sample size and sampling procedure, data collection instruments, piloting, validity and reliability of the research instrument, data collection procedure, data analysis and ethical considerations.

3.1 Research design

Research design is the structure or the plan used to conduct research. It is the overall scheme or program of the research (Orodho, 2003). The research design was descriptive survey and study approach was mixed methods. Survey is the collection of information from a representative sample of individuals through their answers to asked questions. The design was chosen because several methods are used to get participants, collect data and employ several methods of instrumentation (Cohen, Manion & Marrison, 2011). Survey design was used to ask individual head teachers, teachers and parents their opinions which were then integrated in the presentation of study results (Creswell, 2013).

3.2 Study Area

Uriri Sub-County is among the eight Sub- Counties constituting Migori County. It is found between Awendo Sub-County and Suna East Sub-County. Its location in terms of longitudes and latitudes is approximately Eastings- 34° 20'E, 34° 40'E. Northings- 0° 50'S, 0° 30'S. Administratively it is divided into two Divisions, Oyani and Uriri divisions with seven locations and nineteen sub-locations. It's notable that some

locations are considered hardship areas especially West Kanyamkago, Central Kanyamkago, North Kanyamkago and Kamgudho. The two Divisions also serve as educational divisions with 5 education zones. Currently the Sub-County has 15 Public secondary schools and 76 Public primary schools as attained from Uriri Sub- County Education Office statistic records (2017). The consistent poor academic performance informed this study in this area.

3.3 Target population

Refers to people for whom study is designed and generalization of the findings is made (Kothari 2004). The target population included 3 head-teachers, 28 class teachers and 23 parents for the candidate classes of 2017and 2018 in the three integrated primary schools in Uriri Sub County, giving a total study population of 54 respondents.

3.4 Sample size and sampling techniques

Bryman (2012) and Fraenkel & Wallen (2009) define a sample population as a small fraction from the whole population. In this study, saturated and purposive sampling was used because the participants were few. Therefore, 3 head teachers, 28 subject teachers and 23 parents of pupils with visual impairment for the candidate classes of 2017 and 2018 in the three integrated primary schools were included. All the teachers who taught the candidates for the study have direct influence on pupils' academic performance in the respective subjects while parents were important because the child's development first occurs through social interaction with them and as a result their attitude could influence academic performance of children. The distribution of the subject teachers for 2017 and 2018 candidate classes in the three integrated schools are presented in Table 3.1.

Table 3.1 Subject Teachers in 2017 and 2018 Candidate Classes

Integrated School Code	Number of Sampled Subject Teachers for 2017 KCPE	Number of Sampled Subject Teachers for 2018 KCPE	Total Number of Teachers
1	4	5	9
2	5	5	10
3	4	5	9
Total	**13**	**15**	**28**

Similarly, the 2017 and 2018 KCPE enrolment statistics of learners in three integrated schools were as shown in Table 3.2.

Table 3.2 2017 and 2018 KCPE Visually Impaired Candidates

Integrated School Code	Number of 2017 KCPE Visually Impaired Candidates	Number of 2018 KCPE Visually Impaired Candidates	Total
1	3	4	7
2	4	2	6
3	5	5	10
Total	**12**	**11**	**23**

The 23 visually impaired candidates were the ones whose parents were invited to take part in the study.

3.5 Instruments

Data was obtained by use of three research tools. They included questionnaire and interview guide to capture objectives which were useful in answering pertinent questions raised in this study and the academic performance document analysis guide. Questionnaire is easy to use in survey and also allows good time to answer questions and to air their views. Questionnaires are confidential Koul (2004). Interview schedules have flexibility and verify information from questionnaires. Interviews are methods

used in descriptive designs to act as follow up instruments for gathering more data (Kothari, 2004). Collected responses were used to interpret results and then discussed by comparing with what other studies have found out.

3.5.1 Teachers Questionnaire

Researcher adopted and used a self-administered questionnaire given to selected sample. Section A collected data on demographic information, section B on their attitude and section C information on the instructional practices. The questionnaire consisted of ten closed- ended questions in both section B and section C. The closed items were presented in the form of Likert scale where respondents selected their responses. The response range was between 1 and 5 with 1= Strongly Disagree (SD), 2= Disagree (D), 3= Neutral (N), 4= Agree (A), 5= Strongly Agree (SA). Likert scale was used because it is a quick way of obtaining and comparing views and opinions of individuals. Likert scale is commonly applied in behavioral science while providing sufficient variability for comparison, for ease of tabulation and analysis (Joppe, 2000). Teachers' Questionnaire is attached as Appendix A-page 87-88.

3.5.2 Head-teachers interview guide

The interview guide collected data from the head teachers by seeking their opinion about the general performance of pupils with impairment. The researcher designed interview schedule for three head teachers to gather qualitative information. Section A addressed the demographic information while Section B addressed information on the study objectives. A semi-structured interview involved asking several questions and allows room for freedom of expression by the respondents (Gall, Gall & Borg, 2007).

The responses were grouped into themes for discussion (Creswell, 2014). Head-teachers' interview is attached as Appendix B-page 89-93.

3.5.3 Parents Questionnaire

For the parents, the questionnaire had two sections namely A which addressed the demographic information and section B addressed their attitude towards their children with visual impairment. The items were eleven presented in the form of Likert scale where respondents selected their responses. The response range was between 1 and 5 with 1= Strongly Disagree (SD), 2= Disagree (D), 3= Neutral (N), 4= Agree (A), 5= Strongly Agree (SA). Parents Questionnaire is attached as Appendix C-page 94-95.

3.5.4 Document analysis guide

The researcher reviewed the computer print-out of 2013 - 2018 KCPE results in the three integrated primary schools with an aim of retrieving information about subject average marks and total marks for the visually impaired candidates. The subject average marks for pupils with visual impairment were then used to correlate corresponding subject teacher's attitude aggregate scores while total KCPE marks for the visually impaired candidates were correlated with their parent's attitude aggregate score. Document analysis guide is attached as Appendix D-page 96

3.6 Validity and Reliability of research instruments

According to Kerlinger (2002), research instruments should measure what they purport to examine.

3.6.1. Validity of the research tools

Orodho (2009) defines validity as the measuring exactly what you wanted to measure in research. Face and content validity were determined by supervisors and other lecturers from department of Educational Psychology and Science for correction and advice. They were required to evaluate the relevance of the content in the research tools to the central research questions and give proposals on how the researcher would improve on the validity of the instruments. Their recommendations were factored in the final documents. This was to ensure that the content addressed the intended responses and also to avoid ambiguity (Creswell, 2014). Content validity was used in this study.

3.6.2. Reliability of data collection tools

Internal Consistency Reliability Coefficient of the instruments is calculated basing on Cronbach's alpha. Reliability coefficient of above .70 would be acceptable (Mugenda and Mugenda, 2003). The study focused on the three objectives; the teachers' attitude, parental attitude and the instructional practices. Reliability index was calculated using the formula

$$\alpha = \frac{k \times \bar{c}}{\bar{v} + (k-1)\bar{c}}$$

Where, k = number of scale items

$\bar{c}$ = average of all covariances between items

$\bar{v}$ = average variance of each item

The results of the reliability tests are presented in Table 3.3.

Table 3.3 Reliability test scores

Scale	Number of question items	Reliability coefficient
Teachers attitude questionnaire	10	.79
Parents attitude questionnaire	11	.78
Instructional practices Questionnaire	10	.72

3.7 Data collection procedures

An introductory letter from the University (Appendix E-page 97), letter of authority and permission from National Council of Science and Technology and Innovation (Appendix F-page 98). Research permit from the County Director of Education office, Migori (Appendix G- page 99**)**; a letter to research within the sub-county (Appendix H – page 100). Appointments were made earlier to visit the schools to administer questionnaires, conduct interview and to review the document analysis guide.

The researcher delivered the questionnaires in person to the respondents (teachers). This phase was done within three months, during which respondents received and completed the questionnaires. The questionnaires were filled in the presence of the researcher, so that the researcher could clarify any misunderstanding. To the parents, the head teachers contacted the 23 parents through telephone calls once appointment was confirmed. The researcher then booked appointments to issue the questionnaires on the planned date. Researcher noted that parents were literate enough to respond to questionnaire since they responded to the questions with minimal difficulty. The responses from both teachers and parents were recorded, transcribed and reported thematically.

Head teacher's interviews were conducted on different days within a period of one week and focused on soliciting views of head teachers on the attitude and instruction practices of teachers. Each interview took on average 45 minutes with the head teachers. The responses were tape recorded, transcribed and reported based on emerging themes.

Document analysis on records of 2017 and 2018 KCPE examination results were reviewed by the researcher under the guidance of head teacher and class teachers in each of the three integrated primary schools. The details on academic performance specifically on subject average marks for 28 subject teachers handling the candidate classes in the three integrated primary schools and 23 KCPE marks for visually impaired candidates in the three integrated public primary school for the years 2017 and 2018 were extracted from the document. The data were used to complete the document analysis guide in preparation for descriptive and inferential data analysis.

3.8 Data Analysis

Data collected were both quantitative and qualitative in nature and type, hence several data analysis techniques used.

3.8.1 Quantitative Data Analysis

Quantitative data collected from the questionnaires and document analysis guide using school academic records were analyzed using descriptive and inferential statistics such as frequency counts, weighted averages and composite scores for Multi-Item summated. Likert scales were used to provide summary statistics on the teachers' attitude, the parental attitude and the teachers' instructional practices towards pupils with visual impairment. Also, descriptive statistics was used as a precursor for inferential analysis on each study objective.

The inferential statistical techniques used included Pearson's Correlation and binary logistic regression to establish the strength and direction of the linear relationships of the predictor variables (Teacher attitude, Parents attitude and Instructional practices) and Dependent variable (Academic Performance). As a result, Pearson's coefficient revealed the extent to which each independent variable influence dependent variable.

To ascertain the influence of teacher's attitude, parent's attitude and teacher's instructional practices on the likelihood of pupils with visual impairment performing above average, a binary logistic regression was used based on the following model;

P = Probability that pupils with visual impairment performed above average given the status of independent variable.

= teacher's attitude or parent's attitude or teacher's instructional practices

= constant term

From equation (1), was used to determine the Odds ratio which was a measure of the likelihood of a pupil with visual impairment performing above average given the status of independent variable (teacher attitude or parents' attitude or instructional practices).

Consequently, responses to the indicators of teacher's attitude, parent's attitude and teacher's instructional practices towards pupils with visual impairment were collapsed and a composite index computed to generate dichotomous data for analysis using binary logistic regression.

For instance, since the instrument on teacher attitude and instructional practices consisted of 10 indicators each, the following summated scores based on the recommendation by Kothari (2005) were used for rating;

$10 \times 5 = 50$ points

$10 \times 3 = 30$ points

$10 \times 1 = 10$ points

The indices ranged from 10 to 50 points for teacher's attitude and teacher's instructional practices, therefore the above criterion was used to categorize teacher attitude as either negative (a score of less than or equal to 30 points) or positive (a score greater than 30 points) and instructional practices as either not effective (a score of less than or equal to 30 point) or effective (a score greater than 30 points). Similarly, since the instrument on parents' attitude consisted of 11 indicators, the indices ranged from 11 to 55 points, hence, teacher attitude was rated as either negative (a score of less than or equal to 33 points) or positive (a score greater than 33 points)

As regards objective one, two and three, academic performance which was the response variable, was measured based on 2017 - 2018 KCPE marks for pupils with visual impairment and zero (0) was assigned to performance rating of less than or equal to 250 marks while 1 was assigned to performance rating of above 250 marks but less than or equal to 500 marks.

The categorization was based on the fact that KCPE individual candidate overall performance ranges between a minimum of zero mark and maximum of five hundred marks since the 2017 -2018 KCPE examination comprised of five subjects each out of 100 %.

Table 3.4 Statistical techniques matrix used for analysis of quantitative data per objective

Objective	Independent variable	Dependent variable	Statistical Techniques
Influence of teachers' attitude on academic performance	Teacher Attitude	KCPE performance	Descriptive Statistics, Pearson Correlation and Binary Logistic Regression (Odds Ratio)
Investigate the influence of parents' attitude on academic performance	Parents attitude	KCPE performance	Quantitative Statistics, Pearson Correlation and Binary Logistic Regression (Odds Ratio)
Examine the influence of instructional practices on academic performance	Instructional practices	KCPE performance	Descriptive Statistics, Pearson Correlation and Binary Logistic Regression Analysis (Odds Ratio)

95% confidence level (5% of significance tested hypothesis.

3.8.2 Qualitative data analysis

Data were analyzed as emerging content or themes and sub themes according to research objectives and verbal respondents' responses.

3.9 Ethical Considerations

Researcher got permission from NACOSTI by applying for a research permit. The researcher then sought authority from Migori County Education and Uriri Sub-County Education offices, school authorities and the respondents before carrying out the research. The respondents' identities were kept confidential and non-disclosure and all information provided was used purely for conducting research and not for any other purpose and they remained anonymous.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Introduction

Findings and discussions of the background information, objectives and hypothesis are presented.

4.1 Questionnaire return rate

Returns rates on questionnaires are presented in Table 4.1.

Table 4.1 Questionnaire return rate

Respondents	Issued Questionnaires	Questionnaires Obtained	Percentage (%)
Teachers	28	28	100
Parents	23	23	100

From table 4.1, questionnaires were administered to 28 teachers and 23 parents. All the 28 teachers' questionnaires and 23 parents' questionnaires administered were successfully completed by respondents and returned, giving a response rate of 100%, above 70 % response rate threshold as given by Mugenda and Mugenda (2003). Interview schedule was also administered to the three head-teachers, giving 100% response.

4.2 Analysis of demographic information

Study investigated the gender of the respondents, their professional qualification and the length of teaching experience of teachers and head-teachers. Demographic information gave an important picture on the nature of the respondents.

Table 4.2 shows majority of the teachers 21(75%) had certificate qualification while few teachers 7(25%) had a diploma qualification in special needs education. Regarding head-teachers, the results in Table 4.2 show that only 1(33%) has certificate qualification and majority 2(67%) have a diploma in special needs education. The findings point out that the teachers and head teachers are well trained and are therefore professionally qualified to handle pupils with special needs.

4.2.3 Teaching length

Teachers indicated their teaching length in terms of years they have served.

Table 4.3 Teaching experience in years

Length of Teaching Experience	**F**	**%**
Below 2 Yrs	6	21.4
2-4 Yrs	4	14.3
5-6 Yrs	4	14.3
Above 6 Yrs	14	50
Total	**28**	**100**

Table 4.3 establishes that many of the teachers 14 (50%) had been teaching for more than 6 years, 4(14.3%) teachers teaching between 2 and 4 years, 4(14.3%) had a teaching experience of between 5 and 6 years whereas 6(21.4%) teachers were in the teaching profession for less than 2 years. The demographic results imply that most teachers had been in the teaching profession long enough and were therefore adequately equipped to teach. Ijaiya (2000) says experience improves teaching skills.

4.3 Teachers' attitude and performance in academics

Objective one found out influence of teachers' attitude on performance. Teachers of integrated primary schools in Uriri Sub-County responded based on multiple indicators of teacher attitude on a 5-point rating scale on the aspects of teachers' attitude.

Table 4.4 present descriptive statistics on attitude of teachers towards pupils integrated in primary schools

Table 4.4 Responses of teachers towards pupils with VI

	SD	D	N	A	SA	MR
I like pupils with visual impairment	8 (28.6)	5 (17.9)	4 (14.3)	5 (17.9)	6 (21.4)	**2.86**
I find assessing pupils challenging	3 (10.7)	2 (7.1)	9 (32.1)	6 (21.4)	8 (28.6)	**3.50**
Teaching pupils requires extra effort	0 (0)	2 (7.1)	9 (32.1)	11 (39.3)	6 (21.4)	**3.75**
I find it interesting teaching pupils	7 (25)	11(39.3)	7 (25)	3 (10.7)	0 (0)	**3.79**
Managing pupils is tiresome	0 (0)	0 (0)	5 (17.9)	12 (33.6)	11(39.3)	**4.21**
I would like to make a career in special needs education	0 (0)	5 (17.9)	9 (32.1)	10 (35.7)	4 (14.3)	**3.46**
I feel comfortable with pupils with visual impairment	3 (10.7)	5(17.9)	11(39.3)	9 (32.1)	0 (0)	**2.93**
I communicate effectively with pupils with visual problems	4 (14.3)	7 (25.0)	9 (32.1)	5 (17.9)	3 (10.7)	**2.86**
I am patient with pupils with visual problems	3 (10.7)	4 (14.3)	8 (28.6)	9 (32.1)	4 (14.3)	**3.25**
I dislike pupils with visual problems	12(42.9)	7 (25.0)	5 (17.9)	4 (14.3)	0 (0)	**2.04**

Note. N=28; Percentage in parentheses ( )

Results in Table 4.4 show that 13 (46.5%) disagreed (score 1 and 2 on the Likert scale) that they like pupils with visual impairment as compared to 11 (39.3%) who agreed. The weighted average of 2.86 representing neutral on the scale. The results indicate most of the teachers were indifferent on whether they liked pupils with visual impairment or not. This implies that there were as many who liked as to those who disliked them. This is also in line with the findings of Anderson (2006) who said that both negative and positive attitudes of teachers is crucial in teaching and learning. This view was also held by all 3 (100%) head teachers who say attitude is key in teaching and learning.

During an interview, it was noted that head teachers of primary schools should like pupils in order to successfully chat the way to achieve educational objectives for the pupils. One head teacher stated:

> I observed that teachers who love pupils see their role in providing affection for school children so as to put in their best effort to learning and assisting them (Head teacher 1)

Head teacher 1, indicates that head teachers should like pupils in order to know when there are obstacles, what to do and how to do it without any problem. Head teachers' positive attitude is crucial in ensuring good academic performance.

With regard to the finding on assessment of pupils with visual impairment, 5 (17.9%) disagreed, meaning they don't find it challenging as compared to 14 (50%) who agreed meaning that they find it challenging. The results suggest that on the average, assessing pupils with visual impairment is challenging as indicated by weighted averages of 3.50 representing agree on the scale. All 3 (100%) head teachers also agreed that assessing pupils with special needs is expensive because it requires specialized equipment. The results suggest that the level of assessment was not adequate and this affects academic performance.

Head teacher 3 says:

> The challenges depend on the degree of impairment. Keenness of my teachers is therefore, necessary in order to notice such pupils in class.

The response from Head teacher 3 shows that keenness of head teachers helps in identifying challenges of visual impairment pupils as these have effect on them which in turn leads to improved academic performance. Failure to do, teachers may not be adequately evaluating pupils.

On whether Teaching pupils with visual impairment requires extra effort, 2 respondents representing 7.1% indicated that it did not (score 1 and 2). Teaching pupils with visual impairment requires extra effort, mean rate of 3.75 which represent agree on the scale. While 17 representing 60.7% who agreed that teaching pupils with visual impairment requires extra effort. This was in concurrence with Ineke, Janssen and Minnaert (2018) who said that teachers should understand students' individual needs for effective teaching. This implies that teachers of such schools have to work hard to enable pupils grasp some knowledge in school as they are always in direct contact with them. This therefore implies that putting extra effort is necessary in academic performance of the visually impaired pupils.

On whether teachers find it interesting teaching pupils with visual impairment, 3 (10.7%) disagreed meaning they didn't find it interesting while 18 (64.3%) agreed meaning most teachers' teaching pupils with visual impairment find it interesting as indicated by weighted averages of 3.95. This implies that given an alternative employment, majority will choose the latter. This is in line with Lomofsky (2005) who

hold the view that teachers need to have a positive attitude to work with special needs children.

On whether managing pupils with visual impairment is tiresome, 23 representing 82.1% agreed that it is tiresome. Teachers find programs they partake trying to enable learning tiresome as indicated by weighted averages of 4.21. This implies that most of the teachers teaching pupils with visual impairment were experiencing burn out with the exercise. This implies that they may not be in a position to offer their best in trying to improve the academic performance, meaning most teachers teaching is tired of the exercise, causing poor academic performance. One head teacher remarked "managing requires special skills and equipment." This was supported by Luque, Leonidas, Kira and Brandao (2018) who said that inadequate knowledge is hindering integration. Hatlen (2004) said that teachers who do not have time for pupils with special needs will not help them to learn. It therefore suggests that discomfort in teaching affect the academic performance.

With regard whether they would like to make a career in teaching pupils with visual impairment, 5 (17.9%) disagreed while 14 (50%) agreed. The results of the analysis yielded a weighted average of 3.46 which imply that most teachers want to become teachers of visually impaired pupils, an attitude that improves teaching and learning. Jayaprada (2012) who says that teachers' positive attitudes influence integrated education. Teachers also be sensitized about children with special needs so as to show correct attitude and behavior towards pupils with visual impairment.

As regards whether they were comfortable with pupils with visual impairment, 8 (28.6%) disagreed (score 1 and 2) while 9 (32.1%) agreed (score 4 and 5). The results of the analysis yielded a weighted average of 2.93 which imply that most teachers have not disclosed their feelings against pupils with special needs. Comfort ability of teachers in this case could not come out clearly as teachers did not disclose it. This was supported by Ineke, Janssen and Minnaert (2018) who said that teachers be aware of student's needs and committed to this goal of integration.

Head teacher 2 concluded:

> Teachers are not comfortable with teaching pupils with visual impairment; this therefore, needs us to encourage teachers to do their best to help them to excel in their academic performance.

The response from head teacher 2 above shows that enthusiasm play a role in improving academic performance, as this influence the pupils' make up which in turn leads to their improved academic performance.

As regards whether they communicate effectively with pupils with visual impairment, 11 (39.3%) disagreed (score 1 and 2) while 8 (28.6%) agreed (score 4 and 5). The results of the analysis yielded a weighted average of 2.86 which imply that nature of teachers' communication with pupils with special needs and unique needs is not known and this was in line with Penda et al. (2015) and Brown et al. (2013), who say teachers need complete training and modify their teaching methods and resources for effective communication. Teachers need to unite and improve on communication and listening skills. This therefore, is a clear indication that proper communication by teachers adds academic improvement.

With regard to whether they were patient with pupils with visual impairment, 7 (25%) disagreed (score 1 and 2) while 13 (46.4%) agreed (score 4 and 5). The results of the analysis yielded a weighted average of 3.25 which imply that teacher's tolerance is not known. The findings contrast views held by head teachers who see teachers comfortable handling pupils with visual impairment. Lomofsky (2001) argues that teachers need to be sensitive and critical of the stereotypes and prejudices related to disability. Teachers should be patient with pupils with visual impairment to enhance general academic performance.

With regards to whether they dislike pupils with visual impairment, 19 (69.9%) disagreed (score 1 and 2) while 9 (14.3%) agreed (score 4 and 5). The results of the analysis yielded a weighted average of 2.04 which imply that most teachers like pupils with special needs. These results concur with the view held by the 3 (100%) head teachers who say that teachers are comfortable handling pupils with visual impairment. Dupoux (2005) says that teachers attitude towards academic improvement of pupils determines the success of integration.

Data on this objective was analyzed under the hypothesis;

$H0_1$: Teacher attitude has no statistical significant influence on academic performance

Bivariate Pearson's Product-Moment Coefficient of Correlation established relationship between teachers' attitude and academic performance computed by correlating 28 aggregate scores on a teacher's attitude scale with 28 teacher's corresponding subject average marks for 2017- 2018 KCPE output presented in Table 4.5.

Table 4.5 Teacher attitude and performance

		Academic Performance	Teacher Attitude
Academic Performance	Pearson Correlation	1	.537**
	Sig. (2-tailed)		.000
	N	28	28
Teacher Attitude	Pearson Correlation	.537**	1
	Sig. (2-tailed)	.000	
	N	28	28

**. Correlation is significant at the 0.01 level (2-tailed).

From the results in table 4.5, there was positive and moderate relationship (r =.537, p< 0.05) between teacher attitude and academic performance in integrated primary schools. Given that the p-value was less than the chosen level, α= .05, the null hypothesis was rejected and concluded there was statistical positive and moderate relationship between teacher attitude and performance of pupils with visual impairment. This implies that positive teacher attitude moderately influence improved performance of pupils with visual impairment and vice-versa.

The study further determined probability of integrated primary schools performing above or below average based on the teachers' attitude. To establish the likelihood, a binary logistic regression was used to calculate the Odds ratio, in which case the independent variable (teachers' attitude) and dependent variable (academic performance of pupils) were coded as dichotomous variables. Thus; based on Kothari (2005) recommendation on summated likert scale, teachers' attitude on pupils with visual impairment were collapsed and a composite index computed for each teacher to

represent the rating of the level of attitude. The indices ranged from 10 to 50 and were used to rate the attitude as being either Negative <=30 points and positive >30 points. Therefore, for teachers' attitude which was the explanatory variable, 0 was assigned if the teachers' attitude was rated as negative while 1 was assigned if the teachers' attitude was rated positive.

The summary of the Indices grouped in terms of whether the teachers had positive or negative attitudes as presented in the Table 4.6.

Table 4.6 Teachers' attitude as a composite Index

	Teacher' Attitude Index		
			Total
Number of Teachers	11	17	28
Percent	39.3%	60.7%	100

The results of the analysis show that 11 teachers representing 39.3% were rated negative towards pupils with visual impairment compared to 17 teachers representing 60.7% who were established to have a positive attitude. This means that majority of teachers have positive attitude which is likely to improve academic performance. This is further supported by 3 (100%) head teachers who reiterated their teachers had positive attitude. Encouragement and positive attitude enhances attitude of pupils towards their education. The results of teacher's attitude aggregate scores and subject average scores analyzed using binary logistic regression and the Odds Ratio are presented in Tables 4.7.

Table 4.7 Binary Logistic Regression Odds Ratio

Performance	Odd Ratio.	Std. Err.	Z	P>|z|	[95% Conf. Interval]	
Teacher Attitude	3.337	1.202	3.35	0.001	1.647	6.759
Constant	.365	.082	4.48	0.000	.235	.567

The results in Table 4.7 show that an odds ratio of 3.337 significant at 0.05 level of significance ($z=3.35$, $p<.05$) was obtained for teachers' attitude and this means that the likelihood of those teachers who had positive attitudes towards pupils with visual impairment obtaining high performance is 3.337 times higher than those who had negative attitude towards the pupils. Teachers with negative attitude negatively impact on the pupils while those with positive attitude also positively impact on the performance. Findings by Mwaura and Wanyera (2002) who assert that teachers should show positive attitude to these pupils to encourage them to be active and to explore their surroundings. Institute for Social and Economic Change (ISEC, 2006) identified negative attitude of teachers as a key barrier to academic performance.

4.4 Parental Attitude and academic Performance

Parents attitude were measured on 5-point Likert scale as follows;

Table 4.8 Parents' attitude on pupils with visual impairment

Statement	SD	D	N	A	SA	MR
I like my child having visual impairment	0 (0.0)	0 (0.0)	6 (26.1)	8 (34.8)	9 (39.1)	**4.13**
Managing my child with visual impairment is exhausting	7 (30.4)	6 (26.1)	3 (13.0)	5 (21.7)	2 (8.7)	**2.52**
I feel comfortable living with my child with visual impairment	0 (0.0)	4 (17.4)	4 (17.4)	11 (47.8)	4 (17.4)	**3.65**
It is fun playing with my child with visual impairment	0 (0.0)	1 (4.3)	8 (34.8)	9 (39.1)	5 (21.7)	**3.78**
I do like assisting my child with visual impairment	0 (0.0)	0 (0.0)	6 (26.1)	11 (47.8)	6 (26.1)	**4.00**
Maintaining my child with visual impairment is not costly	12 (52.2)	3 (13.0)	1 (4.3)	7 (30.4)	0 (0.0)	**2.13**
It is Joyous caring for my child with visual impairment	9 (39.1)	4 (17.4)	2 (8.7)	8 (34.8)	0 (0.0)	**2.39**
Having a child with visual impairment is not stressing	12 (52.2)	6 (26.1)	3 (13.0)	1 (4.3)	1 (4.3)	**1.83**
My child with visual impairment is of much assistance	2 (8.7)	5 (21.7)	12 (52.2)	4 (17.4)	0 (0.0)	**2.78**
I fear for my child with visual impairment	0 (0.0)	0 (0.0)	3 (13.0)	12 (52.2)	8 (34.8)	**4.22**
I am proud of my child with visual impairment	0 (0.0)	0 (0.0)	7 (30.4)	16 (69.6)	0 (0.0)	**3.70**

Note. N=23; Percentage in parentheses ( )

On whether parents like their children with visual impairment, 17 respondents representing 73.9% agreed that they like their children who are visually impaired. A

mean of 4.13 represent ‘agree’, indicating that parents like their children with visual impairment. This is important because parents will support and take their children to school. This was also supported by Hussein (2006) who said that pupils supported by parents perform well in examinations. This is a clear indication parental attention in their children’s education is an indicator of achievement.

In response to the assertion that managing pupils with visual impairment is exhausting, 13 respondents representing 56.5% disagreed, 7 (30.4%) agreed with a mean of 2.52 indicating that the parents were not seeing managing the children with visual impairment as exhausting, meaning they have accepted the children despite the disability. This was supported by Lupon, Armayones and Cardona (2016) who said that child care is psychosocial. This therefore, calls for all parents to be free with their disabled children and offer any necessary help in order to allow them excel in their academic performance.

With regard to whether they felt comfortable living with children with visual impairment, 4 (17.4%) disagreed with a mean of 3.65 indicating majority of parents were at ease living with their children who were visually impaired. While15 representing 65.2% agreed, mean of 3.65 which represent ‘agree’; parents were comfortable living with their children with visual impairment. Georgiou (2007) says that parents who support education believe in their children. This will enhance the general performance of their children with visual impairment.

To whether it is fun playing with their children with visual impairment, 1 respondents representing 4.3% disagreed while 14 (60.9%) agreed, a weighted mean of 3.78 which

indicated that the parents had fun playing with their children. Parents are not ashamed of having children with disability, being in concurrence with the findings of Columna (2013) who valued practical work of children. This response was also echoed by Kara et al. (2013) who say parents play very crucial role in promoting physical growth of their children and they should be part and parcel of their children's life. Parents who are not ashamed with their children with visual impairment find it easy to support them towards their academic achievement.

As regards to whether parents like assisting their children with visual impairment, 17 respondents representing 73.9% of parents indicated (score 4 and 5 on the scale) that they like assisting their children with visual impairment. A mean of 4.00 which represent 'agree', indicates parents liked assisting their children with visual impairment. This is in line with the findings of Augestad and Elmer (2016) who found that parental and family support greatly affects children's achievement. The same view was supported by Husain, (2006) who found that guidance from parents indirectly affects the performance of pupils with visual impairment. This automatically indicates that pupils whose parents are more involved in their academic work tend to be better off academically than those not directly involved.

To whether maintaining the visually impaired child was not costly, 15 (65.2%) disagreed, while 7 (30.4% agreed. A mean of 2.13 represent 'disagree' indicates the parents considered the maintenance of their children with visual impairment to be costly. This confirms the findings of Balal and Rehan (2012) who found that family income significantly affects the academic performance and disability affects the entire family in terms of time, finance, physical and emotional demands.

On whether it was Joyous caring for the child with visual impairment, 13 respondents representing 56.5% disagreed while 8 representing 34.8% agreed with a weighted mean of 2.39 which indicates that it was not Joyous caring for children with visual impairment because they require special attention and specialized facilities which are normally expensive. The stigma held by the society about the causes of blindness influenced parents to feel quality and disgraced. This may be one of the causes for parents to develop negative attitude towards their visually impaired children.

In response to the assertion that having a child with visual impairment is not stressing, 18 respondents representing 78.3% while 2 representing 8.7% agreed with a weighted mean of 1.83 which represents 'Disagree' indicates that there was some level of stress accompanying having a child with visual impairment. This is also in line with Munyere (2004) findings which indicated that children who gets encouraged by the parents to work hard in school are likely to do better than where the parents are not involved in supporting and encouraging them.

With regard to whether children with visual impairment were of much assistance, 7 (30.4%) disagreed while 4 (17.4%) agreed. with a weighted mean of 2.78 which indicates that the parents were indifferent as to whether children with visual impairment were of much assistance or not. Mungai and Munyere (2004) say children are an asset that will be expected to assist the family especially in old age.

To whether they fear for their children with visual impairment, 20 (87%) agreed with the statement with a weighted mean of 4.22 which indicates that the parents empathized with their children. Aduda (2009) says parents should take their children to school and

are partly responsible to their requirements. This shows that parents should always ensure guaranteed security of their children with visual impairment

With regard to whether the parents were proud of their children with visual impairment, 16 respondents representing 69.6% of parents agreed (score 4 and 5 on the scale) that they were proud of their children with visual impairment. A mean of 3.70 indicates that the parents were proud of their children with visual impairment. This could make them take their children to school.

The hypothesis tested for objective two was:

$H0_2$: Parents' attitude has no statistically significant influence on academic performance

Coefficient of Correlation used to measure parents' attitude and academic performance in integrated schools was computed by correlating 23 aggregate scores on parent's attitude scale with 23 corresponding KCPE marks for 2017- 2018 KCPE.

Table 4.9 Parents' attitude and academic performance

		Pupils Performance	Parents' Attitude
Pupils Performance	Pearson Correlation	1	.243**
	Sig. (2-tailed)		.064
	N	23	23
Parents' Attitude	Pearson Correlation	.243**	1
	Sig. (2-tailed)	.064	
	N	23	23

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.9 indicates a positive and weak relationship ($r = .243$; $p > 0.05$) between parents' attitude and performance was not significant, the p-value being .064 which is greater than the significance level of, $\alpha = .05$. Therefore, null hypothesis was not rejected and

concluded there is no statistical significant influence between parents' attitude and academic performance.

Further, study established probability of performing above or below average given a parent's attitude. To establish the probability, a binary logistic regression was conducted. Table 4.10 and Table 4.11 present results for descriptive statistics on parents' attitude and the binary regression Odds Ratio for determining the likelihood of pupils' performance respectively.

Based on summated scores, attitude of the parents of pupils with visual impairment were categorized into two: Negative attitude (a score of less than or equal to 33) and positive attitude (a score greater than 33). The mean and standard deviation were computed.

Table 4.10 Descriptive statistics of aggregated variables

	N	MIN.	MAX.	MEAN	Std. Deviation
Parents' Attitude	23	11	55	35.3404	9.2694

Table 4.10 shows that parents' attitude had a mean index of 35.3404 with responses deviating from this mean by a standard margin of 9.26994. The mean was slightly above 33 hence it could be inferred that parents' attitude was rated positive amongst the parents of pupils. Composite index of parents' attitude was categorized as either being negative if the score index was below 33 and positive if the index was greater than or equal to 33.

From analysis, the parents who were considered to have a positive attitude was 16 compared to 7 whose attitude towards their children with visual impairment was considered negative.

Table 4.11 displays the binary logistic regression Odds Ratio results obtained after conducting the analysis.

Table 4.11 Binary Logistic Regression Odds Ratio

Performance	**Odd Ratio.**	**Std. Err.**	**Z**	**P>|z|**	**[95% Conf.**	**Interval]**
Parents' Attitude	1.5	**1.474788**	0.41	0.680	**.2183718**	10.30353
Constant	.4	**.334664**	-1.10	0.273	.0776057	2.061704

The results in Table 4.11 above show that an odds ratio of 1.5 was obtained for parents' attitude which implies likelihood of those whose parents having a positive attitude performing better is 1.5 times more than the likelihood of those whose parents had a negative attitude. The results show that the parents' attitude towards pupils with visual impairment influences greatly academic performance. The study results buttress findings by Hussain, (2006) which showed that guidance from parents indirectly affect the performance of pupils with visual impairment and results by Kernan, Borgat and wheat (2011) who also established that encouragement and a positive attitude from the parents is very important in determining the attitude of the pupil towards their education. This is a clear indication that attitude is important as it is a stronger indicator to academic achievement.

4.5 Instructional Practices and Academic Performance

The objective established impact of instructional practices on performance in integrated primary schools. Influence of instructional practices was determined on Likert scale as follows;

Table 4.12 Instructional practices on academic performance

Administrative Support	SD	D	U	A	SA	MR
I offer assessment tests in my class	3 (10.7)	8 (28.6)	5 (17.9)	6 (21.4)	6 (21.4)	3.14
Teachers and learners have good relationship	3 (10.7)	7 (25.0)	6 (21.4)	7 (25.0)	5 (17.9)	3.14
Learners are provided with adequate teaching / learning materials	9 (32.1)	8 (28.6)	11 (39.3)	0 (0.0)	0 (0.0)	2.07
I provide individualized educational instruction	0 (0.0)	6 (21.4)	9 (32.1)	10 (35.7)	3 (10.7)	3.36
I communicate effectively by use of audible audio modes of communication	5 (17.9)	8 (28.6)	9 (32.1)	2 (7.1)	4 (14.3)	2.71
I accept free expression of opinion from pupils with visual impairment.	0 (0.0)	7 (25.0)	6 (21.4)	6 (21.4)	9 (32.1)	3.61
I use peer teaching and learning methods in my class	3 (10.7)	8 (28.6)	8 (28.6)	8 (28.6)	1 (3.5)	2.86
I use large print teaching / learning materials	0 (0.0)	2 (7.1)	7 (25.0)	11 (39.3)	8 (28.6)	3.89
Pupils are provided with Braille's and magnifiers	7 (25.0)	2 (7.1)	4 (14.3)	11 (9.3)	4 (14.3)	3.11
Pupils are appropriately seated in class	2 (7.1)	6 (21.4)	4 (14.3)	13 (46.4)	3 (10.7)	3.32

Note. N=28; Percentage in parentheses ( )

In regard to the construct, "I offer assessment tests in my class", Table 4.12 indicates that 11(39.3%) of the respondents agreed (score 1and 2) as compared to 12 (42.9%) disagreed (scores 4 and 5). A weighted average of 3.14 suggests on average, teachers in schools for pupils with visual impairment were uncertain on whether they offered

assessment tests to their pupils. This implies that the existence of assessment tests and those that were not were equally likely. One head teacher says:

> "In my school, we offer assessment tests to identify students areas of need and strength for future reference.

The response from head teacher 1 above shows that the assessment plays a role as this has influence on their academic performance; leading to improved academic performance. Palmer (2005) stresses that adjustment in teaching and learning are necessary and assessing pupils with visual impairment is very important and needs to be strengthened.

To the assertion that teachers and pupils have good relationship, 10 respondents representing 35.7% disagreed as compared to 12 (42.9%) agreed. Six respondents (21.4%) uncertain. More respondents agreed compared to those who disagreed, meaning the teachers in the schools for pupils with visual impairment had a good relationship and this could contribute to a good academic achievement. Ineke, Janssen and Minnaert (2018) say that teachers should be aware of students needs as this will help in eradicating poor academic performance.

On whether the pupils were provided with adequate teaching / learning materials, 17 (60.7%) disagreed (score 1 and 2) while the remaining 11 (39.3%) uncertain. Since majority of the respondents disagreed with the weighted average of 2.07, pupils were not provided with adequate teaching / learning materials.

Regarding the use of large print/learning materials in class, one head teacher reiterated:

> Most primary schools lack resources and ensure that pupils with visual impairment sit in front of the class next to the teacher for

> any assistance for effective teaching. Lack of teaching/learning materials decreases pupils' academic performance because of ill adapted teaching.

It is therefore evident that there is unstable and difficult teaching in most schools due to lack of quality resources as it was established in the findings of Korir (2015) who says even though pupils met most of the requirements, they still faced a lot of challenges. This is also supported by the view of Karemera (2003) who supported that pupils' performance is significantly correlated with the facilities available in school and promotes teaching and learning process and influence academic performance positively.

To answer the question on whether they provide individualized educational instruction, 6 respondents representing 21.4% disagreed (score 1 and 2) while 13 (46.4%) agreed (score 4 and 5). 9 (32.2%) uncertain. More agreed than disagreed indicating teachers provided individualized educational instruction to the pupil with visual impairment and this could improve learning. Luque, Leonidas, Kira and Brandao (2018) note that inadequate knowledge is hindering integration in education.

In response to the assertion that the teachers are able to communicate effectively by use of audible audio modes of communication, 13 (32.2%) disagreed (score 1 and 2), 6 (35.1%) agreed (score 4 and 5) while 9 (32.7%) uncertain. Less than 50% of the academic staff agreed, meaning the academic staffs are not satisfied with the support they get from the school administrators. This is supported by Kilei (2009) and Nyaronga (1986) who advocate for a learning environment rich with teaching approaches and learning resources and diversified techniques of teaching. This calls for having a proper

enhancement of frequent communication between teachers and pupils as this will always encourage the pupils' participation.

On whether teachers accept free expression of opinion from the pupils with visual impairment, 7 respondents representing 25.0% disagreed (score 1 and 2), 15 (53.6%) agreed (score 4and 5) while 6 (21.4%) uncertain. The results indicate that the teachers in the schools allow their pupils to freely express their opinions with a weighted average of 3.61 which represents agree on the scale. This is particularly important in building their confidence level. Pupils should be provided with the freedom of expression as this is most effective in facilitating their attitude.

In the question of using peer teaching and learning methods in their classes, 11 (39.2%) disagreed (score 1 and 2), 9 (32.1%) agreed (score 4 and 5) while 8 (28.7%) uncertain. Results indicate that on the average peer teaching is not embraced by teachers in these schools. This made them not to share information and learn from each other. Peer teaching and learning methods should improve poor performance in pupils with visual impairment.

On whether teachers use large print teaching / learning materials, 2 respondents representing 7.1% disagreed (score 1 and 2) while 19 (67.9%) agreed (score 4 and 5). The results indicate that the teachers in the schools for pupils with visual impairments use materials with large print as indicated by a weighted average of 3.89 which represents agree on the scale. This implies that the teaching / learning materials are appropriate for the pupils. This is supported by Ogiriama, Onyiyeche and Oyeniran (2017) who echo that teachers should use assistive technologies. The use of large print

teaching / learning materials improves academic achievement in school, making a positive impact to a successful educational performance.

On whether pupils are provided with Braille's and magnifiers, 7 respondents representing 25% disagreed (score 1 and 2), 15 (53.6%) agreed (score 4 and 5 on the scale) while 6 (21.4%) uncertain. The results indicate that not all pupils in these schools are provided with Braille's and magnifiers. This may imply that the learning process is hampered hence the learning outcomes may not be satisfactory. This is in agreement with the findings of Silman, Yaratan and Karanfiller (2017) who supported that with the assistance of technology pupils becomes motivated and can communicate easily with each other. Braille machines and magnifies assist them in reading and writing for a better academic performance.

On whether pupils are appropriately supervised in class, 8 respondents representing 28.6% disagreed (score 1 and 2), 16 representing 57.1% agreed (score 4 and 5) while 4 (14.3%) uncertain. The results indicate that most pupils in these schools were appropriately supervised in their classes. This is supported by Ayub, Mkanibwa, Romed and Ndekwa (2017) who advocate that pupils should be given special considerations in teaching and learning. Teachers should ensure guaranteed supervision of pupils with visual impairment as this will encourage them as they learn in class.

The hypothesis for objective three was:

$H0_3$: Instructional practices have no statistically significant influence on academics.

To test this hypothesis, coefficient of Correlation was used to get the strength of influence of instructional practices on performance. This was calculated by correlating

28 aggregate scores on a teacher's instructional practices with 28 teacher's corresponding subject average marks for 2017 and 2018 KCPE results.

Table 4.13 Instructional Practices and academic Performance

		Learners Performance	Instructional Practices
Pupils Performance	Pearson Correlation	1	.697**
	Sig. (2-tailed)		.000
	N	28	28
Instructional Practices	Pearson Correlation	.697**	1
	Sig. (2-tailed)	.000	
	N	28	28

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.13 indicates positive relationship ($r = .697$; $p < 0.05$) between instructional practices and performance of pupils with visual impairment being statistically significant, since the p-value is smaller than the level of significance, $\alpha = .05$. Therefore, the hypothesis was rejected and it was concluded that instructional practices significantly influence academic performance. This suggests that more favorable instructional practices for pupils with visual impairment should be availed to boost performance.

Instructional practices of the schools were categorized into two: Not effective (a score of less than or equal to 30) and effective (a score greater than 30).

Table 4.14 Descriptive Statistics of conduciveness of instructional practices

	N	**Min**	**Max**	**Mean**	**Std. Deviation**
Instruction practices	28	16	50	29.9404	9.26994

Table 4.14 show instructional practices had a mean index of 29.9404 with responses deviating from this mean by a standard margin of 9.26994. The mean was slightly below 30 hence it could be inferred that overall instructional practices was rated not to be favourable.

Based on aggregated values, instructional practices were categorized as either being ineffective if the score index was below 30 and effective if the index was greater than or equal to 30.

Consequently, to ascertain the likelihood of pupils with visual impairment performing above average, analysis was carried out using binary logistic regression and the odds ratio obtained based on teacher's instructional practices. Table 4.15 presents the SPSS output on Binary Logistics Regression Odds ratio.

Table 4.15 Binary Logistic Regression Odds Ratio

Performance	**Odd ratio**	**Std. Err.**	**Z**	**P>|z|**	**(95% Conf.**	**Interval]**
Instructional Practices	13.125	**12.85663**	2.63	0.009	**1.924431**	89.51508
Constant	.133333	**.1003697**	-2.68	0.007	.0304914	.5830422

The results in Table 4.15 above show that an odds ratio of 13.125 significant at 0.05 level of significance ($z=2.63$, $p<.05$) was obtained for favorableness of the instructional practices which implies that the likelihood of pupils with visual impairment and whose instructional practices was rated as favorable performing better is 13.125 times more than the likelihood of those whose instructional practices was rated as unfavorable. The results show that the instructional practices influence greatly academic performance.

Palmer (2005) stresses adjustment in teaching and learning materials and good classroom management are necessary. This calls for enrichment of the class and modification of experiences to promote a good teaching and learning atmosphere experience.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents a summary of findings, conclusions and recommendations as per objectives. It gives suggestions of further research at the end.

5.1 Summary of findings

Summary based on the findings of the three objectives analyzed and discussed in the previous chapter four are presented.

5.1.1 Teachers' attitude and academics

First objective found out a positive influence of teachers' attitude and pupil's performance. The study established a significant positive and moderate influence ($r= .537$, $p< .05$) on academic performance. Also teachers who had a positive attitude were more than those who were rated to having a negative attitude as reflected by the ratings of 60.7% as compared to those who had a negative attitude rating at 39.3%. The results of the logistic regression analysis indicated teachers' attitude and performance had a positive coefficient of 1.205 significant at 5% level of significance (z-value=3.350, p=0.001). The results of the odds ratio established the likelihood those whose teachers had positive attitude obtaining high performance was 3.337 times higher than those whose teachers had negative attitude

5.1.2 Parents attitude and academic performance

The objective investigated influence of parents' attitude on pupils performance. Study found out that parental attitude had a positive and weak influence, $r = .243$; $p> 0.05$ on

academics of pupils with visual impairment, with no statistical significance. The study established 16 out of 23 parents surveyed had a positive attitude towards their children with visual impairment compared to 7 whose attitude was considered negative. The logistic regression analysis shows positive relationship between parents' attitude and performance. Odds ratio analysis established an odds ratio of 1.5 which implied likelihood those whose parents had positive attitude performing better was 1.5 times more than the likelihood of those pupils with visual impairment whose parents had a negative attitude The results show that an odds ratio of 1.5 was obtained for parents' attitude which implies likelihood of those whose parents had positive attitude performing better is 1.5 times more than the likelihood of those with parents having a negative attitude. Parents' attitude was positive since majority of the parents were rated to have a positive attitude compared to a few whose attitude towards their children with visual impairment was considered negative.

5.1.3 Instructional practices and performance

Third objective examined instructional practices and academic performance. Study established that teacher instructional practices had positive and strong influence of $r = .697$; $p < 0.05$ and logistic regression positive coefficient of 2.574519 which was significant at 5% level of significance (z-value=2.63, p-value=0.009) on performance of pupils. An odds ratio of 13.125 showed likelihood of those schools with favorable instructional practices performing better was 13.125 times more than the likelihood of those schools with unfavorable instructional practices. The results show that the instructional practices influence greatly the academic performance.

5.2 Conclusions

Conclusions were based on study findings.

i. The study concludes that majority of teachers have positive attitude which is likely to improve academic performance. When attitude of teachers is positive, pupils with visual impairment performance will be high however if attitude changes to negative the performance will decline. Teachers' attitude is a key driver on performance.

ii. Parents' attitude towards their children with visual impairment should be enhanced since it has an influence on performance

iii. Instructional practices should be made favorable to enhance academic performance of visually impaired pupils.

5.3 Recommendations

Recommendations from the study findings have been grouped into two sections. The first section shows recommendations for policy makers while section two shows recommendations for further studies.

5.3.1 Policy Recommendations

i. Ministry of Education provides funds to organize regular training for teachers and parent's management. This will be useful in ensuring that the teachers and parents have the positive attitude towards pupils with visual impairment hence promote their academic performance.

ii. The parents of pupils with visual impairment should develop mutual relationship with their children for academic achievement.

iii. The primary school curriculum and the instructional practices of the primary schools should be adapted to accommodate pupils with visual impairment.

5.3.2 Suggestions for Further Research

The following topics have been recommended:

i. Since the study was confined to only three schools in Uriri Sub-county, the study recommends a similar study in the entire Migori County to corroborate the study findings. Such study should be designed to increase the sample size hence be used to validate the study results.

ii. The study focused only on attitude and instructional practices as barriers to academic performance. The study recommends a more general study of the academic impediments pupils encounter in primary schools in Kenya.

iii. The study also recommends a study to look into the challenges teachers dealing with pupils with visual impairment face in discharging duties with the aim of enhancing their delivery.

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APPENDICES
APPENDIX A

QUESTIONNAIRE OF TEACHERS

Dear Respondent,

I am Beatrice A. Ochieng, a Master student at Rongo University undertaking research in Integrated education in Uriri Sub-County, Migori County – Kenya, on pupils with visual impairment. The information you provide will be treated confidentially and not used for any other purpose but for the academic use for which it is intended.

Thanks for your co-operation

Beatrice Adhiambo Ochieng

SECTION A: Demographic Information

Tick (√) where appropriate

1. Your gender?

Male ☐

Female ☐

2. What is your highest level of academic qualification?

Certificate ☐

Diploma ☐

Degree ☐

3. What is your length of stay in this current station?

Below 2 Years ☐ 2-4 Years ☐ 5-6 Years ☐ Above 6 Years ☐

	Objective 1: Influence of teachers attitude on academic performance	**1 SD**	**2 D**	**3 U**	**4 A**	**5 SA**
1	I like pupils with visual impairment					
2	I find assessing pupils challenging					
3	Teaching pupils with visual impairment requires extra effort					
4	I find it funny teaching pupils with visual impairment					
5	Managing pupils with visual impairment is tiresome					
6	I would like to make a career in teaching pupils with visual impairment					
7	I feel comfortable with pupils with visual impairment					
8	I communicate effectively with pupils with visual impairment					
9	I am patient with pupils with visual impairment					
10	I dislike pupils with visual impairment					

SECTION B: Responses on Study Objectives

Based on your knowledge and experience, how would you rate the performance in the following aspects? Tick (√) where appropriate on a 5- point likert scale, where by 1- strongly Disagree (SD) 2- Disagree (D) 3- uncertain (U), 4 - Agree (A), 5- strongly Agree (SA)

SECTION C: Responses on study objectives

Influence of instruction practices on academic performance.

Based on your knowledge and experience, how would you rate the performance in the following aspects? Tick (√) where appropriate on a 5- point likert scale, where by 1- Strongly Disagree (SD) 2- Disagree (D) 3- uncertain (U), 4- Agree (A), 5- Strongly Agree (SA)

	Influence of instruction practices on academic performance	**1 SD**	**2 D**	**3 U**	**4 A**	**5 SA**
1	My class is well ventilated					
2	Teachers and pupils have good relationship					
3	Pupils are provided with adequate teaching / learning materials					
4	I provide individualized educational instruction					
5	I communicate effectively by use of audible audio modes of communication					
6	I accept free expression of opinion from pupils with visual impairment					
7	I use peer teaching and learning methods in my class					
8	I use large print teaching / learning materials					
9	Pupils are provided with Braille's and magnifiers					
10	Pupils are appropriately seated in class.					

APPENDIX B

INTERVIEW SCHEDULE FOR HEADTEACHERS

Dear Respondent,

I'm Beatrice A. Ochieng. a Master student at Rongo University undertaking a research in Integrated education in Uriri Sub-County, Migori County – Kenya, on pupils with visual impairment. I assure you that the information you will give will be treated confidentially and shall not be used for any other purpose other than the academic use for which it is intended.

Thanks for your co-operation.

Beatrice Adhiambo Ochieng

SECTION A: Demographic Information

Tick (✓) where appropriate

1. Your gender?

Male ☐ Female ☐

2. Your length of stay as a head teacher in this current station?

1-5yrs ☐ 6-10yrs ☐ above 10yrs ☐

3. What is your highest qualification?

SECTION B:

Responses on the Study Objectives

Objective 1: Influence of teacher's attitude on academic performance

1. Do you have affection to pupils with visual impairment? Yes ☐ No ☐

Give reasons

_____

_____

2. Is assessing pupils with visual impairment challenging? Yes ☐ No ☐

Explain

_____

_____

3. Does teaching pupils with visual impairment require extra effort? Yes ☐

No ☐ give reasons

_____

_____

4. Is it fun teaching pupils with visual impairment? Yes ☐ No ☐

Give reasons

_____

_____

5. Is managing pupils with visual impairment tiring? Yes ☐ No ☐

Explain

_____

_____

6. Would you like to make a career in teaching all pupils with visual impairment?

Yes ☐ No ☐ Give reasons

_____

_____

7. Do you feel comfortable with pupils with visual impairment? Yes ☐

No ☐ Give reasons

_____

_____

8. Do you communicate effectively with pupils with visual impairment?

Yes ☐ No ☐

Explain

_____

_____

9. Are you patient with pupils with visual impairment? Yes ☐ No ☐

Explain

_____

_____

Objective 2: Influence of instruction practices on performance of pupils (I P Q)

10. Is the class for pupils with visual impairment well ventilated and lit?

Yes ☐ No ☐

Give reasons

_____

_____

_____

11. Do you use large print teaching / learning materials in your class? Yes ☐

No ☐ Give reasons

_____

_____

12. Do you provide pupils with visual impairment with Brailles and magnifiers?

Yes ☐ No ☐

Which ones

_____

_____

13. Do teachers and pupils with visual impairment have good working relationship?

Yes ☐ No ☐

Give reasons

_____

_____

14. Do you provide pupils with visual impairment adequate teaching / learning materials? Yes ☐ No ☐

Give reasons

_____

_____

15. Do your teachers provide individualized educational instruction for pupils with visual impairment**?** Yes ☐ No ☐

Give reasons

_____

_____

16. Do you accept free expression of opinion from pupils with visual impairment?

Yes ☐ No ☐

Give reasons

_____

_____

17. Is the classroom for pupils with visual impairment well lit? Yes ☐ No ☐

Give reasons

_____

_____

18. **GENERAL COMMENTS**

APPENDIX C

QUESTIONNAIRE FOR PARENTS

Dear Respondent

I'm Beatrice A. Ochieng, a Master student at Rongo University undertaking a research in Integrated education in Uriri Sub-County, Migori County – Kenya, on pupils with visual impairment. Information you give will be treated confidentially and shall be used for the academic purpose for which it is intended. Kindly give honest information as required.

Thanks for your co-operation.

Beatrice Adhiambo Ochieng

SECTION A: Demographic Information

Tick (✓) where appropriate

1. Your gender?

Male ☐ Female ☐

2. Your relationship with the child?

Mother ☐ Father ☐ Guardian ☐

3. How many children do you have? (specify)_____

4. How many amongst them have visual impairment? (specify)_____

5. At what age did you realize your child had visual impairment? (specify)_____

SECTION B: Responses on Study Objectives

Based on your knowledge and experience, how would you rate the performance in the following aspects? Tick (√) where appropriate on a 5- point likert scale, where by 1- strongly Disagree (SD) 2- Disagree (D) 3- uncertain (U), 4- Agree (A), 5- strongly Agree (SA).

	Influence of parents attitude on academic performance	**1 SD**	**2 D**	**3 U**	**4 A**	**5 SA**
1	I like my child with Visual Impairment					
2	Managing my child with visual impairment is tiring					
3	I feel comfortable living with my child with visual impairment					
4	It is fun playing with my child with visual impairment					
5	I do not like assisting my child with visual impairment					
6	Maintaining my child with visual impairment is costly					
7	It is Joyous caring for my child with visual impairment					
8	Having a child with visual impairment is stressing					
9	My child with visual impairment is of little assistance					
10	I fear for my child with visual impairment					
11	I am not proud of my child with visual impairment					

APPENDIX D

ACADEMIC PERFORMANCE DOCUMENT ANALYSIS GUIDE

S/No	2017 and 2018 KCPE Total Marks for Visual Impaired Learners

APPENDIX E

AUTHORITY FROM RONGO UNIVERSITY

MINISTRY OF EDUCATION
State Department of Early Learning and Basic Education

Telephone: (059) 20420
Fax: 05920420
When replying please
quote

COUNTY DIRECTOR OF EDUCATION
MIGORI COUNTY
P.O. Box 466-40400
SUNA – MIGORI

REF: MIG/CDE/ADMN./73/VOL.I/ 64

DATE: 19th July, 2019

Ochieng Beatrice Adhiambo
Rongo University
P.O. Box 103-40404
RONGO

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on **"Factors affecting academic performance of the visually impaired in inclusive primary schools in Uriri Sub-County, Migori County, Kenya"** and subsequent approval by **NACOSTI** vide letter Ref: **NACOSTI/P/19/57861/27483.** I am pleased to inform you that you have been authorized to undertake research in **Migori County** for a period ending **3rd July, 2020.**

During the research, you are expected to exercise high levels of research integrity.

FOR: COUNTY DIRECTOR OF EDUCATION
19 JUL 2019
SIGN:.....

HP **Elizabeth Otieno (Mrs.)**
County Director of Education
MIGORI COUNTY

APPENDIX F

AUTHORITY FROM NACOSTI

APPENDIX F

AUTHORITY FROM NACOSTI

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone +254-20-2213471, 2241349,3310571,2219420
Fax:+254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref No **NACOSTI/P/19/40269/29803** Date **4th July 2019**

Ochieng Beatrice Adhiambo
Rongo University
P.O. Box 103-40404
RONGO.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Factors affecting academic performance of the visually impaired learners in inclusive primary schools in Uriri Sub-County, Migori County, Kenya."*** I am pleased to inform you that you have been authorized to undertake research in **Migori County** for the period ending **3rd July, 2020.**

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

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

BONFACE WANYAMA.
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Migori County.

The County Director of Education
Migori County.

APPENDIX G

NACOSTI RESEARCH PERMIT

MINISTRY OF EDUCATION
State Department of Early Learning and Basic Education

Telephone: (059) 20420
Fax: 05920420
When replying please
quote

COUNTY DIRECTOR OF EDUCATION
MIGORI COUNTY
P.O. Box 466-40400
SUNA – MIGORI

REF: MIG/CDE/ADMN./73/VOL.II 64

DATE: 19th July, 2019

Ochieng Beatrice Adhiambo
Rongo University
P.O. Box 103-40404
RONGO

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on **"Factors affecting academic performance of the visually impaired in inclusive primary schools in Uriri Sub-County, Migori County, Kenya"** and subsequent approval by **NACOSTI** vide letter Ref: **NACOSTI/P/19/57861/27483.** I am pleased to inform you that you have been authorized to undertake research in **Migori County** for a period ending **3rd July, 2020.**

During the research, you are expected to exercise high levels of research integrity.

FOR COUNTY DIRECTOR OF EDUCATION
19 JUL 2019
SIGN:.....

HP **Elizabeth Otieno (Mrs.)**
County Director of Education
MIGORI COUNTY

APPENDIX H

AUTHORITY FROM COUNTY DIRECTOR OF EDUCATION

MINISTRY OF EDUCATION
State Department of Early Learning and Basic Education

Telephone: (059) 20420
Fax: 05920420
When replying please
quote

COUNTY DIRECTOR OF EDUCATION
MIGORI COUNTY
P.O. Box 466-40400
SUNA – MIGORI

REF: MIG/CDE/ADMN./73/VOL.I/ 64

DATE: 19th July, 2019

Ochieng Beatrice Adhiambo
Rongo University
P.O. Box 103-40404
RONGO

RE: RESEARCH AUTHORIZATION

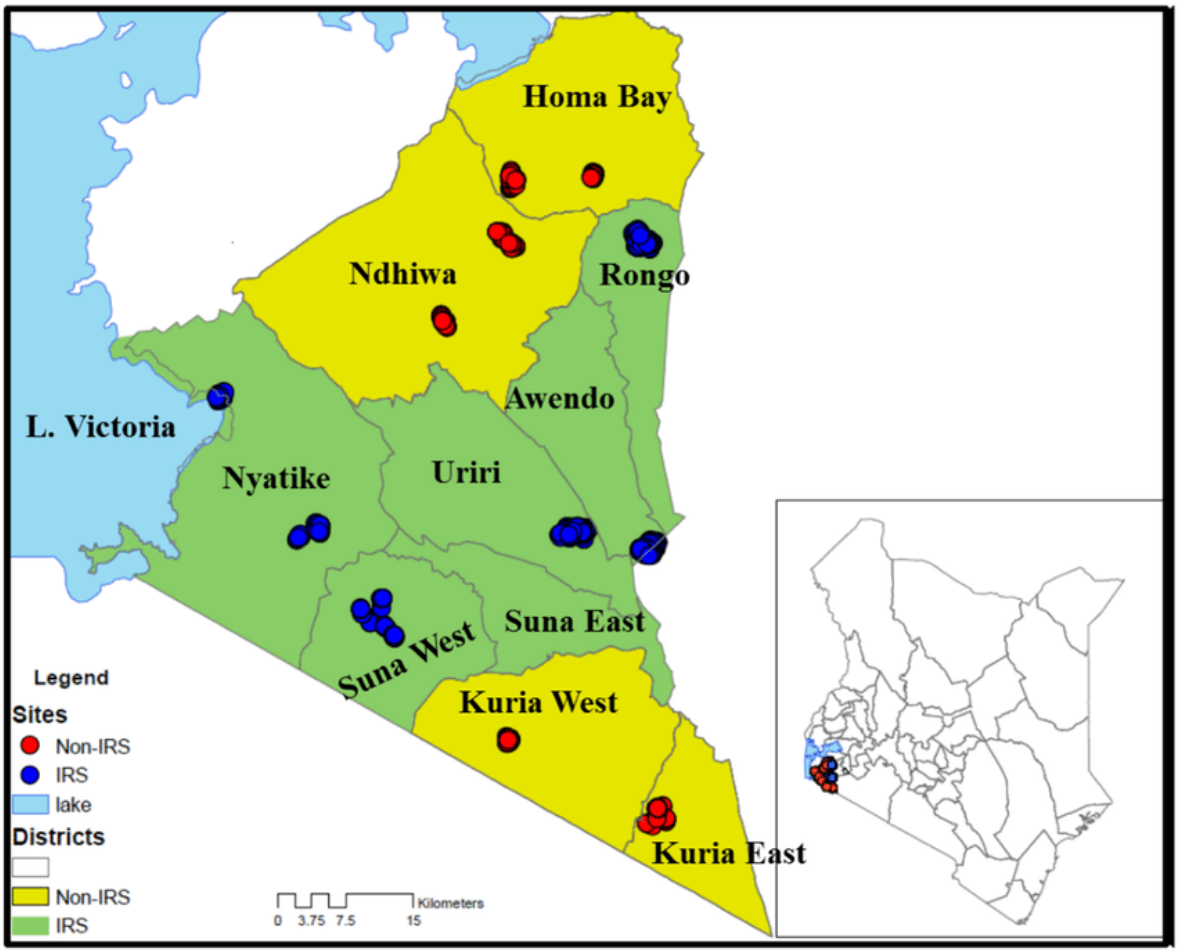
Following your application for authority to carry out research on **"Factors affecting academic performance of the visually impaired in inclusive primary schools in Uriri Sub-County, Migori County, Kenya"** and subsequent approval by **NACOSTI** vide letter Ref: **NACOSTI/P/19/57861/27483.** I am pleased to inform you that you have been authorized to undertake research in **Migori County** for a period ending **3rd July, 2020.**

During the research, you are expected to exercise high levels of research integrity.

FOR: COUNTY DIRECTOR OF EDUCATION
19 JUL 2019
SIGN:.....

Elizabeth Otieno (Mrs.)
County Director of Education
MIGORI COUNTY

APENDIX I
MAP OF MIGORI COUNTY WITH THE SUB-COUNTIES



Source: Research Gate, 2022