EDUCATIONAL RESOURCES AND INCLUSION OF HEARING IMPAIRED LEARNERS IN PRIMARY SCHOOLS IN EAST KARACHUONYO DIVISION HOMABAY COUNTY – KENYA

A Thesis
Presented to College of Higher Degree and Research Kampala International University Kampala,
Uganda

In Partial Fulfillment of the Requirements for the Degree of Master of Education in Educational Management and Administration

By:
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August. 2012
DECLARATION A

This is my original work and has been presented for a degree or any other academic award in any university or institution of learning.

Frederick Odhiambo Ojijo

...........................................

Signature

...........................................

Date

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19.9.2012
DECLARATION B

“I / we confirm that the work reported in this thesis was carried out by the candidate under my / our supervision.”

Dr. Kayindo Vincent

Name and signature of the supervisor

Date

Name and signature of the supervisor

Date

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DEDICATION

The researcher dedicated this study to his beloved wife Irene Odhiambo and children, Derrick, Emlyn and Antonine. Special thanks to mom and Ruth.
ACKNOWLEDGEMENT

The researcher wishes to register his heartfelt acknowledgement first and foremost to Almighty God for His tender guidance throughout the study period.

Special gratitude goes to the Kampala International University management for the material and technical support and for the provision of resource materials.

Special acknowledgement goes to the DVC College of Higher Degrees and Research; Professor Sumil Novembrieta for availing conducive study atmosphere in the college.

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The researcher finally extends his gratitude to friends and well wishers who accorded him both financial, material and emotional support while producing this manuscript.
The study, educational resources and inclusion of learners with hearing impairment in East Karachuonyo Division, Homabay County was carried out to find out the level of educational resources in the inclusive schools in East Karachuonyo division in Kenya. The objectives of the study were to determine the profile of respondents, to determine the level of educational resources, to determine the level of inclusion and to determine whether there is significant relationship between educational resources and inclusion of the hearing impaired learners in East Karachuonyo Division, Rachuonyo North district, Homabay County. Descriptive correlation survey method was adopted, where two variables or correlations were compared from the sample size. Both quantitative and qualitative research methods were used to perform statistical analysis to produce results. However, the findings of the study revealed that females that teach hearing impaired learners slightly outnumber their male counterparts at 55(55%) and 45(45%) respectively. The majority of the respondents were between the ages 30 – 39 years, and most have taught in the schools between 1 – 5 years. Most of the teachers that is 62(62) % have no training in the teaching of learners with hearing impairment. On the human resources available in the schools, regular teachers take the lead with a mean of 3.61 while the rest are found in a few schools. The general resources dominate at the expense of specific resources. Social interaction and relationship among learners and teachers is availed, but special attention to learners with hearing impairment is not fostered in the inclusive schools. The study revealed that there is adequate teaching and learning materials that majorly appeal more importantly to learners without special needs scoring a mean of 2.51 availability. Compensatory devices on average were rated low with hearing aids and loudspeakers rated at a mean of 1.52 and 1.47 respectively. Inclusion of learners was rated high as eight out of twelve elements were high with free interaction, same curriculum content, same teaching time and the aspect of combining learners ranking very high at 3.20, 3.48, 3.47 and 3.30 respectively. Finally, the study revealed that there is a significant relationship between educational resources and inclusion of learners with hearing impairment in East Karachuonyo division, Homabay County, Kenya.
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CHAPTER ONE

THE PROBLEM AND ITS SCOPE

Background of the study

There has always been high global demand for education. However, in some countries, educational resources that have been availed to achieve the high demand for education has remained questionable. Learners with hearing impairment have undergone integration and inclusion in the regular classrooms to attain education with their counterparts who have no special needs in education. Given the importance of education, the world Conference on Education for All (EFA), held in Jomtien, Thailand, in the year 1994 focused on education for all children, irrespective of disability. The conference affirmed the principle that every child including those with hearing impairment has a right to education. The concern for EFA was that every child should get access to quality education. The Darkar conference, held in Darkar, Senegal in the year 2000 attracted 164 countries focused attainment of the goals earlier set by Jomtien conference and turns the vision of education into reality. The framework re-affirmed the goal of EFA laid down by Jomtien and facilitated working towards specific Education For all by 2015. It also shared a common vision that “everyone, child and adult alike would command the basic literacy and numerical skills needed to function as a citizen, workers, family member and fulfilled individual in the global society “. The hearing impaired is included in this vision. The United Nations Standard Rules on Equalization of Opportunities for Persons with Disabilities (1994), has outlined circumstances, which have influenced the conditions of persons with disabilities and highlighted factors that have isolated them and delayed their development. These factors include ignorance, neglect, superstitions and fear. The challenge posed by the Standard Rules are based on the principles of equality, integrated settings,
provision of support services, adequate accessibility, parents participation and giving special attention to learners with disabilities.

The World Conference on Special Needs Education, held in Salamanca in 1994, Spain, highlighted the range of differences which are present in today's society. The Conference stated that many groups of children with special needs including those with hearing impairment are excluded in the mainstream education. This indicated a need for a general reform and to address issues of access and quality education for all children. The conference took cognizance of those with special needs and emphasized that every child has a fundamental right to education. The focal point of this conference was provision of education to children with special needs through inclusive schooling approach and to remove all barriers so that all children can learn together. In line with the current world order, Kenya has set some benchmarks to be achieved. By the year 2005, Universal Primary Education (UPE), was in place to pursue the goal of EFA by 2015. The Free Education ideology in Kenya has availed educational resources that support the learning of pupils in Kenyan primary schools. To ascribe to UN Standard Rules,(1994) and emerging issue that education, if free in Kenya, the need for inclusive education is something that ought to be practiced now. However, educational resources for hearing impaired learners should be considered alongside other learning resources. In Kenya, the prevalence of hearing impaired learners by 2005, stood at 2% (Ndurumo,2005). This constitute a significant proportion which should not be ignored in the educational provision as contained in the EFA goal.

The Kenyan Institute of Special Education was established by Legal Notice in 1986 to train special teachers who would teach learners with special needs in inclusive educational settings. However, a few teachers have enrolled to pursue diploma courses in special needs education. The teachers who have graduated cannot meet the demand of learners with hearing impairment in the regular school.
In Homabay County where East Karachuonyo Division is situated, the existing number of learners with hearing impairment is on the rise. For example, the Division has a total of 18600 learners, of whom 2% are presumed to be hearing impaired learning in inclusive setting. Hiuhu (2002) postulate that Educational resources should be of high quality in order to meet the expectation of learners with special needs in the inclusive setting hearing impairment.

Statement of the Problem

Since the introduction of inclusive education, discrimination and bias in the education of learners with hearing impairment continues to manifest through inaccessibility to all resources, services and responsibilities. Inclusion should aim at ensuring that all persons regardless of disability are not excluded from any of the society’s activities. However, the full and equal participation of every individual in the society has not been respected or valued. Learners with hearing impairment have been found to perform below average throughout the history of inclusive education and a good number of them end up completing primary education cycle without the knowledge of reading or writing. On the contrary, other learners who learn with them acquire the skill of reading and writing at an early age than learners with hearing impairment in inclusive setting. Many learners without special needs in education in regular setting segregate themselves from their counterparts with special needs both study groups and play. Others label them on the basis of their disability. The provision of educational resources for learners with hearing impairment remain questionable as schools are not equipped with hearing aids, sign language interpreters audiologists sound amplifiers and teachers who are trained to teach learners with hearing impairment. These learners require many resources that enable them develop as learning occurs formally and informally through interaction with the environment. Basically, inclusive schools lack human resources, teaching and learning resources compensatory resources, adaptation resources, communication resources and general educational resources.
Considerable approaches have not been applied in the inclusive setting to ensure that appropriate educational resources are availed to facilitate the teaching and learning of learners with hearing impairment.

**Purpose of the study**

1. To test whether there is a significant relationship between educational resources and inclusion of the hearing impaired learners in East Karachuonyo Division, Homabay County.
2. To validate the information on social learning theory and social mobilization theory to which the study is based.
3. To generate new information based on the finding of the study.
4. To bridge the gaps identified in the previous studies.

**Research objectives**

**General objectives**

To correlate the educational resources and inclusion of learners with hearing impairment in inclusive schools in East Karachuonyo Division, Homabay County- Kenya.

**Specific Objectives**

1. To determine the profile of respondents in terms of age, gender, educational qualifications and number of years in the school.
2. To determine the level of educational resources used in the inclusive schools in East Karachuonyo Division Homabay County.
3. To determine the extent of inclusion in the regular Primary schools in East Karachuonyo Division, Homabay County.
4. To determine if there is a significant relationship between educational resources for hearing impaired learners and their inclusion in the inclusive Primary schools in East Karachuonyo Division, Homabay County-Kenya.

Research Questions
1. What is the profile of teachers who teach learners with hearing impairment in inclusive primary schools?
2. What is the extent of educational resources used for learners with hearing impairment in the regular Primary schools?
3. What is the level of inclusion of learners with hearing impairment in regular primary schools?
4. Is there a significant relationship between educational resources for hearing impaired learners and inclusion of learners in regular primary schools?

Null Hypothesis
There is no significant relationship between educational resources and inclusion of learners with hearing impairment in regular primary schools.

Scope

Geographical Scope
This study was conducted in Homabay County, Rachuonyo North District, East Karachuonyo Division in Kenya. Rachuonyo District has two Divisions, East Karachuonyo Division and West Karachuonyo Division. East Karachuonyo Division is bordered to the East by Nyakach District, to the South by Rachuonyo South District, to the West by West Karachuonyo Division and to North is Lake Victoria. The Division covers an area of about 40 Km².
Content Scope
This study determined the type of educational resources used to teach learners with hearing impairment in the primary schools in the division. Educational resources that were considered in the study included human resources, teaching and learning materials, compensatory devices, adaptation resources, communication resources and general educational resources for learners with hearing impairment. In addition the study examined the level of inclusion of learners with hearing impairment in regular primary schools in the division. Significant relationship between the educational resources for learners with hearing impairment and their inclusion in regular primary schools was examined.

Time Scope
The study was carried out in the months of May, June, July and August 2012 and focused on the selected teachers from 12 inclusive Public primary schools.

Significance of the study
The findings of the study would benefit the following;

- Parents of learners with hearing impairment to understand and to assist their children to realize their academic potential.
- The school administrators to enable them to procure relevant educational resources for learners with hearing impairment.
- To enable the teachers to understand their roles as special facilitators for learners with hearing impairment.
- To help curriculum developers to generate information that would assist them to address educational challenges for learners with hearing impairment.
- To add to the knowledge to the area of Special Needs Education [SNE] in regular primary schools.
• To assist educational stakeholders to identify their roles in the inclusion of learners with hearing impairment.

**Operational Definition of Terms**

**Profile of respondent** – refers to the level of teachers that teach learners with hearing impairment in terms of gender, age, educational qualification and number of years in the school.

**Educational resources** – refers to human resources, teaching and learning materials, compensatory resources and communication resources for learners with hearing impairment.

**Inclusion of hearing impaired learners** – refers to involvement of learners with hearing impairment in regular education programme in the aspect of curriculum, co-curriculum and integration.
CHAPTER TWO

REVIEW OF RELATED LITERATURE

Concepts, opinions and ideas from authors/experts

Educational Resource

According to Websters Dictionary (1975), a resource is a source of supply or support. In education, such resources supply and support education. Oxford Advanced Learners Dictionary (1995), describes a resource as anything that can be turned for help, support or consolation when needed. Huihu (2002) define educational resources as a broad based term that focuses at all factors outside and within classroom that makes teaching and learning experiences more effective in an inclusive setting. Huihu categorises, educational resources in inclusive setting to include human resources, teaching and learning materials, compensatory resources, adaptation resources, communication resources and general educational resources which are used in the teaching of learners with hearing impairment in an inclusive setting.

Human Resources

Simpson (2009) defines human resources as support that pivots organizations by use of skills and abilities from people. Huihu (2002) defines human resources as any human support in learning. It is the participation and contribution by people to meet the learning needs of learners. In a school, human resources include; teachers, teacher aides, note-takers, sign language interpreters, audiologists and educational psychologists in the learning life of learners with hearing impairment. In this study, a teacher is a person who plans and conducts lessons. The roles of a teacher include teaching of academic subjects, preparing teaching and learning materials, adapting educational resources for learners with hearing impairment, collaborating with parents and other professionals in related fields, guiding and counseling learners and parents and organizing and training
learners in co-curricular activities. Huihu (2002) affirms that teacher aides assist teachers and learners in the classroom and carries out other duties including assisting individual learners with hearing impairment as the teacher teaches as well as collecting learning materials and preparing display. Note-takers are people who take notes on behalf of learners with hearing impairment as the teacher teaches and give instructions. Sign language interpreter in this study is a person who acts as a mediator for a person who is deaf when instruction is given to people who have normal hearing ability. Sign language interpreters use signs and spoken language where appropriate. Audiologist is a person trained to assess learners who exhibit hearing loss and indicate range and degree of hearing loss and finally assess the need for amplification device and provide advice on special placement. Otiato (2002) asserts that educational psychologist is charged with the responsibility of conducting an in depth assessment for identification of problems in areas of intellectual and behavioral functioning. They do this through selecting and administering tests, scoring and interpreting the findings, then offering guidance and counseling to the learner and family.

**Teaching and learning materials**

According to SPRED Core Module (2001), teaching and learning materials are instruments which are specially made to enhance learning. Mwangi (2002) asserts that teaching and learning materials stimulate the learners' interest in the learning process. Further teaching and learning materials should be chosen and modified to suit the learning needs of learners. The study considers teaching and learning resources as items present in the learning environment that can be used to facilitate effective learning of learners with hearing impairment. These include books, overhead projectors, televisions, blackboards and charts.
Compensatory resources

Huihu (2002) defines compensatory resources as devices that enhance the function of parts of a person's body. The researcher considers the resources which enable the learners with hearing impairment to use the remaining abilities for normal functioning. The presence of hearing aids will be considered in this study for learners with mild hearing impairment and those with moderate hearing impairment. Other aspect in the study includes sound amplification and availability of hearing aids including body worn hearing aid and group hearing aid. According to Mweheria (2002), acoustic treatment of environment involves controlling sound level in an environment to enable learners to obtain a favorable listening condition. In acoustic treatment, all sources of outside and inside noise have to be reduced. The strategy enables learners with hearing impairment to acquire sound with no distraction.

Adaptation Resources

Webster Dictionary defines adaptation as a process of making fit, often by modification. Kilei (2003), describe resource adaptation as modification of resources to suit individual learner’s needs. The aspect of adaptation includes content and presentation, specialized materials and evaluation. Adaptation refers to the process of altering activities, materials and equipment in order to suit needs of learners with hearing impairment in order to create a barrier free environment for learners with hearing impairment. The aspect of the curriculum to be adapted include classroom, which should promote the learning learners with hearing impairment; content which should be free of bias; teaching materials that should promote acquisition of knowledge to the learners with hearing impairment.

Communication Resources

Webster Dictionary defines communication as a process of conveying knowledge or information. Kathenya (2002), defines communication as the transfer
of information from one person to another. Mwaura (2002), affirms that communication difficulty is a condition which either interferes with the smooth flow of one’s speech or hinders the acquisition and development of a language which in turn affect educational performance. Communication resources in this study are devices or facilities necessary to convey information for learners with hearing impairment. Hearing aids, pictograms, ideograms and communication boards are such resources.

**General educational resources**

Huihu (2002), identified such resources to include projected resources, graphic aids such as cartoons, charts, flash cards, maps, photographs, pictures posters, Prinz & Nelson (1985), describe a successful microcomputer programs that use pictures and representation of American Sign Language (ASL), to improve the reading and writing skills of learners with hearing impairment. Automatic machines telling the degree of hearing loss for learners with hearing impairment and improve their residual hearing. Example of such machines includes cochlear implant. Other such machines include electronic computer technology making phones and televisions more accessible to learners with hearing impairment. Prinz & Nelson further indicate availability of acoustic couplers which makes it possible to send immediate message over conventional telephone lines in typed and digital form. Real time graphic display facilitates captioning of live presentation such as public lectures. The study regards such resources to facilitate the learning of learners with hearing impairment in inclusive setting. The availability of computers in primary schools is a factor which necessitates the success in the learning program for the learners with hearing impairment, which should be investigated.

According to Lerner, (1985), mediated learning experience is a theory which puts emphasis on remedial intervention for learners with disability. In this study, learners with hearing impairment require mediating agent to support their
learning. The mediator in this case may be teachers, parents, siblings and peers who undertake to enrich the learning environment thereby making learning more meaningful. Mc Conkey, (1988) postulates that parental involvement put the parent in the position of mediators in the learning of children with learning difficulty. As mediators parent needs to modify the home environment to suit the learner, provide meaning to the content to be learnt, eliminate distractors and to encourage the learner in the learning process. The researcher’s view in this study is that parent has the duty of assisting the learners with the homework, availing learning materials and providing sound free environment for learning. Njuki and Ogonda (2001), classify learners with hearing impairment in the category of those with special needs who require curriculum adaptation to suit the needs of individual learner. The investigator considers the aspects of the curriculum to be adapted to include time, content and correct placement for instructional delivery. Richmond and Smith (1990) affirm that there should be special support that learners with disability should get in the normal classroom. According to the researcher’s view such support services should include interesting activities, fun in learning, use of concrete learning materials and multi-sensory approaches which encourage learners with hearing impairment to use their sensory modalities in learning in the inclusive setting, a fact that is supported by Gearheart (1990).

**Inclusion of hearing impaired learners**

According to Webster Dictionary, inclusion is a relation between classes that obtains, when all class members of the first are also members of the second. It is the act of including or state of being included. According to Waruguru (2002), inclusion is a goal that all participants are in any society should aim at achieving to ensure that all persons regardless of their racial, economic, physical or any differences are not excluded from any of the society’s activities. Ogutu (2002), asserts that equal opportunities and accessibility should be accorded to all learners in the inclusive setting and that discrimination and bias against those who are
different is eliminated through appropriate practices and policies. The study will consider inclusion as a goal that ensures that learners with hearing impairment are accorded full and equal participation in learning by providing accessibility to resources, services and responsibility. The concepts that will be covered by inclusion include inclusive setting, differentiated curriculum, resource room, integration, special unit, regular school and learner's diversity. These aspects of inclusion will give learners with hearing impairment equal opportunity to learn at par with their counterparts without special needs. Waruguru (2002), describe inclusive setting as a situation where all learners including those with special needs participate in all activities in a community that recognizes and addresses the needs of each learner as much as possible. In this study, the needs of learners with hearing impairment will be considered. Otiato (2002), defined differentiated curriculum as an approach that is used to identify the subjects in the curriculum that a learner should cover and plan for each learner according to his/her needs and ability. Randiki (2002), define a resource room as a room in a regular or a special school which is equipped for enriching learning for learners with special educational needs. Resource rooms are used to keep items that aid the learning of learners with learning impairment such as hearing aids. Webster Dictionary (1975), define integration as the process of incorporating as equals in the society. Waruguru (2002), views integration to indicate the participation of learners with special educational needs in regular education without demanding changes in the curricular provision. Waruguru observes that such learners need to adjust to the prevailing regular school arrangements.

Waruguru describe special unit as a classroom that is located in a regular school, but is set aside for educating learners with specific type of disability. This study will assess the presence of special units for learners with hearing impairment. Randiki define regular school as the mainstream school which follows the curriculum that is prepared for the average ability learners. This study will investigate the extent to
which learners with hearing impairment learn alongside the others in regular schools. According to Webster Dictionary (1975), diversity is defined as a condition of being different. Shadama (2005) defines diversity as a term that refers to variations of abilities and differences found among any group of learners in any given setting. These conditions may hinder normal learning and development for individuals. The variation that will be considered in this study will be in terms of the hearing ability of learners in inclusive setting.

**Hearing impairment**

According to Lesley (1993), hearing impairment is a condition characterized by inability to perceive sounds by ear. In this study, the three types of hearing impairment that will be considered are mild hearing impairment, moderate hearing impairment and chronic hearing impairment. Learners with mild hearing impairment refer to those learners with slight hearing inability. Learners with moderate hearing impairment are those learners with average hearing ability while the chronic hearing impaired learners are the deaf learners. Mild and moderate hearing impaired learners have residual hearing ability which can perceive sound by amplification.

According to William (1996), hearing impairment is defined as generic term that includes hearing disabilities ranging from to profound, thus encompassing children who are deaf and those who are hard of hearing. In the two contexts, the researcher regards the hearing impaired learners as learners who are deaf and those who are hard of hearing. A deaf learner has profound hearing inability and is dependent on vision as the primary source of communication; while the hard of hearing learner have significant hearing loss that makes some special adaptation necessary to facilitate communication. The researcher's view is that it's possible for hard of hearing learner to respond to auditory stimuli as they use audition as the primary mode of speech and language skills when correct intervention measures
are put in place such as the use of hearing aids. William points out that children with hearing impairment, even those with superior intelligence and abilities are at a great disadvantage in acquiring language skills. As William asserts, the grammar and structure of English often, do not follow logical rules. The researcher’s view on this is that, with proper inclusion, and relevant adaptation, which includes availability of relevant educational resources, such learners can compete favorably with the other learners in the inclusive setting.

Smith and Luckasson (1992), identify two major educational goals for hearing impaired learners which are; to reduce achievement gap between non-handicapped students who are hearing impaired and to develop the language skills. Smith & Luckasson suggest that learners hearing impaired learners spend a great deal of time to develop language as the rest use their time to the maximum on academic related activities which eventually creates academic gap. The researcher’s view concerning this is that, with good curriculum adaptation and adequate educational resources in the inclusive setting, learners with hearing impairment will learn at par with their counterparts who are non-handicapped.

Tom et al (1998), affirm that students with hearing disability pose a variety of challenges to the general classroom teacher in so far as curriculum delivery is concerned. This implies that learners with hearing impairment in a general classroom setting need specialized human resources who can readily understand their educational demand to eliminate the challenging situations in an inclusive setting. Rena & Doorlag (1999), assert that the teacher is a vital member of inclusion and that they should always be the first to identify the disability and that the parent should be notified before referral as they form part of the multi-disciplinary team. The researcher will consider the availability of teachers who are trained on special needs education who teach the learners with hearing impairment in the inclusive setting.
Inclusive Classroom

This is a least restrictive learning environment where learners with disabilities learn alongside those without disabilities. Kirk and Lord (1990) assert that in inclusive setting learners receive social acceptance from their peers whom they naturally interact with. Heward confirmed that there is an increased understanding between handicapped and non-handicapped and close interaction between special teachers and regular teachers in order to provide necessary support to learners with disability. Hardman et al (2002) further assert that inclusive setting promotes value of children with disability, hence acceptance and belongingness to focus on services and support. Hallahan and Kauffman [1980] affirm that the use of individualized educational programme to cater for diversity within the inclusive setting should be adopted.

Theoretical Perspective

In this study, various theories have been considered and their literature reviewed. The most common ones are;

Social Learning Theory

This theory proposed by Albert Bandura believes that an individual has the ability to select and control his own behavior by imitating other people such as parents, teachers and peers. The study sought to find out the extent to which learners with hearing impairment are allowed to interact with the various educational resources in the inclusive setting in a manner that can influence their behavior in learning. The significant people in the inclusive setting whose behavior can be imitated include teachers, peers and other workers.

Social Mobilization Theory

This theory proposed by Jenkins, in 1983 argues that people with common interests form social movement only if they have access to resources such as time, people
and leadership skills; that give them hope of achieving their goals in spite of opposition from the powerful groups that dominates the society.

The study covered support that learners with hearing impairment require to succeed in the inclusive setting, where majority of the school society are those without special needs.

**Relationship between Educational Resources and Inclusion**

Learners with special needs receive education in their natural environment where they are expected to operate after school. This environment presents diversity which all learners irrespective of disability should cope with. The inclusive school environment provide educational resources which enhances equitable learning experiences that eliminates the learning barriers experienced by learners with hearing impairment. An inclusive setting avails all educational resources that address specific needs of individual learners.

**Related studies**

Raya, (2009) studied challenges of inclusive education, a case study of a selected primary schools in Mvita, Mombasa District, Kenya. In the study, Raya cited shortage of educational resources as one of the challenges that hinder effective implementation of inclusive education program. However, Raya based the study in Mombasa County and his study was conducted in 2009, a factor that necessitated the researcher to carry out the in Homabay county owing to the geographical and temporal gaps that exist in the two studies.

Kahuku, (2007) carried out a study on school based managerial challenges of universal primary education in selected primary schools in Kabale Municipal Town, Uganda cited shortage of resources that support the management. This study was conducted in Uganda in 2007, which prompted the researcher to work on the temporal and geographical gaps that existed.
CHAPTER THREE

METHODOLOGY

Research Design
This study followed a descriptive correlation design because the researcher was interested to find out the relationship that existed between the level of educational resources and inclusion of hearing impaired learners in the inclusive primary schools. The study was also cross-sectional because data was collected over a short period of time.

Population of the study
The target populations of the study were all teachers who teach learners with hearing impairment in schools that are graded as inclusive institutions in East Karachuonyo Division Homabay county-Kenya. According to divisional register, there are a total of 12 schools which have 108 teachers. The schools are distributed in five zones including Rambira, Miriu, Kendu, Nyakongo and Omboga zones. All teachers who are teaching in the inclusive schools were targeted since they have relevant information about their respective inclusive schools.

Sample size
The sample size of this study was 108 teachers who are teaching learners with hearing impairment in 12 public educational institutions that are graded as inclusive schools. The schools are as follows:
<table>
<thead>
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<th>School</th>
<th>Target population</th>
<th>Sample</th>
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<tbody>
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<td>Rongo Nyagowa</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>108</strong></td>
<td><strong>108</strong></td>
</tr>
</tbody>
</table>

**Sampling procedure**

The researcher applied purposive sampling when selecting the schools in the division. Only schools that are graded as public inclusive schools were included in the sample. Regarding the respondents, universal sampling was used, as all the Headmasters, Deputy Headmasters and teachers in the sampled schools were included in the study.

**Research instruments**

This study used researcher made questionnaire. Closed ended questions were applied to obtain data. The respondents were provided with a list of responses from which to select the most appropriate response[s]. The questions were based on the study specific objectives.
**Data Gathering procedure**

The researcher obtained the transmittal letter from the College of Higher Degrees and Research (C.H.D.R), KIU. The researcher visited the selected schools to seek permission and inform respondents on the prospective study, present letters of introduction from Kampala International University. The questionnaire was designed in a manner that it is simple, clear and concise to obtain accurate information. Pretesting was done and adjustments made before dispatch to respondents. After one week the researcher collected the completed questionnaires for analysis.

**Data Analysis**

Quantitative data was analyzed using statistical using statistical computer package for social sciences (SPSS). Frequency distribution was used to determine the profile of respondents. Means were used to analyze the level of educational resources and the level of inclusion of the hearing impaired learners. Pearson coefficient was used to determine the relationship between educational resources and inclusion of hearing impaired learners. Statistical Computer Package for Social Sciences (SPSS) was used in the analysis and was based on the ranking as follows:
<table>
<thead>
<tr>
<th>Mean Range</th>
<th>Response mode</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.20 – 4.00</td>
<td>strongly Agree</td>
<td>very high</td>
</tr>
<tr>
<td>2.51 – 3.25</td>
<td>Agree</td>
<td>high</td>
</tr>
<tr>
<td>1.76 – 2.50</td>
<td>Disagree</td>
<td>Low</td>
</tr>
<tr>
<td>1.00 – 1.75</td>
<td>Strongly disagree</td>
<td>Very low</td>
</tr>
</tbody>
</table>

**Ethical Consideration**

Data gathered from respondents were treated with utmost confidentiality. The information was within the safe custody of the researcher and copies of the same will only be submitted to the University. No names were required on the questionnaires to ensure confidentiality on the part of the respondents.

**Limitations of the study**

Certain aspects of the study that the researcher considers to be sources of bias in the study include;

**Honesty of the respondents**

Teachers, who are the respondents in this study may not avail correct information due to fear of intimidation or victimization.

**Loss of questionnaire**

Eight out of 108 questionnaires could not be retrieved by the researcher as a result of misplacement

**Reliability and validity of the instrument**

Content validity index CVI, was tested to determine the reliability and validity of the questions in the questionnaire as below.

\[
CVI = \frac{RQ}{TQ}
\]

Where \( RQ = \) relevant questions
TQ = Total number of questions

\[
TQ = \frac{CV11(25) + CV12(20) + CV13(25)}{111} = 0.6
\]

This showed validity based on the scale of validity > 0.5 and invalidity < 0.5.

Test retest was used to compute reliability as below

\[
\sum \frac{\bar{x}_1 + \bar{x}_2}{2}
\]

\[
\frac{3}{5} + \frac{4}{5} = \frac{0.6+0.8}{2} = 0.7
\]

There was reliability based on the scale of reliability > 0.5 and unreliability < 0.5.
CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

Introduction

This chapter is a presentation of data, analysis and interpretation of results which are organized in tables based on the research objectives and the corresponding research questions. The chapter also entails testing of the stated hypothesis and discussion of meaning and implication of the findings.

Demographic characteristics of the respondents

Table 1 presents the profile of the respondents (Teachers) in terms of age, gender, highest education attainment, and number of years in the school.
Table 1

Demographic characteristics of respondents

<table>
<thead>
<tr>
<th>Age of respondents</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 – 29</td>
<td>22</td>
<td>22.0</td>
</tr>
<tr>
<td>30 - 39</td>
<td>33</td>
<td>33.0</td>
</tr>
<tr>
<td>40 – 49</td>
<td>29</td>
<td>29.0</td>
</tr>
<tr>
<td>50 – 59</td>
<td>29</td>
<td>29.0</td>
</tr>
<tr>
<td>60 and above</td>
<td>15</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>49</td>
<td>49.0</td>
</tr>
<tr>
<td>Female</td>
<td>51</td>
<td>51.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level of qualification</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No qualification</td>
<td>63</td>
<td>63.0</td>
</tr>
<tr>
<td>Certificate in special needs</td>
<td>9</td>
<td>9.0</td>
</tr>
<tr>
<td>Diploma in special needs</td>
<td>22</td>
<td>22.0</td>
</tr>
<tr>
<td>Degree in special needs</td>
<td>6</td>
<td>6.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Numbers of years in school</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 5 years</td>
<td>62</td>
<td>62.0</td>
</tr>
<tr>
<td>6 – 10 years</td>
<td>27</td>
<td>27.0</td>
</tr>
<tr>
<td>10 and above</td>
<td>11</td>
<td>11.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: primary data 2012
According to table 1, females were 51(51%) and males were 49(49%). This implies that females dominated the sample suggesting their large numbers in the studied schools. This was the expectation of the researcher because in Kenya like in many African countries there is a big number of primary school teacher where in some cases exceeds that of male teachers. Out of the 100 teachers that took part in this study 22% were between 20 and 29 years, 33% were between 30 and 39 years, 29% were between 40 and 49 years, 15 were between 50 and 59 years and only 1 respondent was above 60 years. This implies that most respondents (i.e. 55%) were in below 40 years. Cumulatively 84% were below 50 years. Out of the 100 respondents, 9% were holders of certificate in special needs, 22 had attained Diploma in special needs, 6% degree in special needs while 63% had no qualification in special needs. The findings indicate that most respondents were unqualified in special needs education. Out of the total number of respondents, majority 62 (62%) had worked for their schools for a period between 1-5 years, 27% had worked from 6-10 years while only 11% had worked for 10 years and above. The findings indicate that majority of the respondents 89% had worked for a period of below 10 years.

**Level of education resources**

The second objective of the study was to determine the level of educational resources used in the inclusive schools in East Karachuonyo Division Homabay County. Findings on this objective are presented in table 2. The level of education resources in this study was conceptualized in terms of human resources, teaching and learning materials, compensatory device for the hearing impaired learners and communication resources.

Table 2 displays the mean scores which are ranked according to the characteristics from the highest to the smallest score on each of the four aspects.
## Table 2

### Level of Education resources used in inclusive schools

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Interpretation</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Human resources</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular teachers are available</td>
<td>3.61</td>
<td>Very high</td>
<td>1</td>
</tr>
<tr>
<td>Teacher aide is available</td>
<td>2.23</td>
<td>Low</td>
<td>2</td>
</tr>
<tr>
<td>Education psychologist are available</td>
<td>2.04</td>
<td>Low</td>
<td>3</td>
</tr>
<tr>
<td>Sign language interpreters are available</td>
<td>1.94</td>
<td>Low</td>
<td>4</td>
</tr>
<tr>
<td>Note takers are available</td>
<td>1.66</td>
<td>Very low</td>
<td>5</td>
</tr>
<tr>
<td>Audiologist are available</td>
<td>1.52</td>
<td>Very low</td>
<td>6</td>
</tr>
<tr>
<td><strong>Sub average mean</strong></td>
<td>2.17</td>
<td>Low</td>
<td>2</td>
</tr>
<tr>
<td><strong>Teaching and Learning materials</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chairs are available</td>
<td>3.48</td>
<td>Very high</td>
<td>1</td>
</tr>
<tr>
<td>Table are available</td>
<td>3.47</td>
<td>Very high</td>
<td>2</td>
</tr>
<tr>
<td>Charts are available</td>
<td>2.90</td>
<td>High</td>
<td>3</td>
</tr>
<tr>
<td>Radios are Available</td>
<td>2.41</td>
<td>Low</td>
<td>4</td>
</tr>
<tr>
<td>Models are available</td>
<td>2.30</td>
<td>Low</td>
<td>5</td>
</tr>
<tr>
<td>Televisions are available</td>
<td>1.60</td>
<td>Very low</td>
<td>6</td>
</tr>
<tr>
<td>Projectors are Available</td>
<td>1.47</td>
<td>Very low</td>
<td>7</td>
</tr>
<tr>
<td><strong>Sub average mean</strong></td>
<td>2.51</td>
<td>High</td>
<td>1</td>
</tr>
<tr>
<td><strong>Compensatory device</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hearing aid are available</td>
<td>1.52</td>
<td>Very low</td>
<td>1</td>
</tr>
<tr>
<td>Loud speakers are available</td>
<td>1.47</td>
<td>Very low</td>
<td>2</td>
</tr>
<tr>
<td><strong>Sub average mean</strong></td>
<td>1.49</td>
<td>Very low</td>
<td>4</td>
</tr>
<tr>
<td><strong>Communication resources</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication boards</td>
<td>1.98</td>
<td>Low</td>
<td>1</td>
</tr>
<tr>
<td>Pictogram</td>
<td>1.88</td>
<td>Low</td>
<td>2</td>
</tr>
<tr>
<td>Tape recorders</td>
<td>1.70</td>
<td>Very low</td>
<td>3</td>
</tr>
<tr>
<td>Ideogram</td>
<td>1.64</td>
<td>Very low</td>
<td>4</td>
</tr>
<tr>
<td>Acoustic treatment devices</td>
<td>1.44</td>
<td>Very low</td>
<td>5</td>
</tr>
<tr>
<td><strong>Sub average mean</strong></td>
<td>1.73</td>
<td>Very low</td>
<td>3</td>
</tr>
<tr>
<td><strong>Average mean</strong></td>
<td>1.98</td>
<td>Low</td>
<td></td>
</tr>
</tbody>
</table>

**Source: Primary data 2012**

The mean scores in table 2 indicate that respondents disagreed with most items of human resources availability in an inclusive setting for the hearing impaired.
learners. The respondents indicated that, there are few teacher aide, education psychologist, sign language interpreters, note takers and audiologists with means of 2.23, 2.04, 1.94, 1.96 and 1.56 respectively. Only regular teachers were noted to be very much available, mean = 3.61, implying that teachers who graduate from colleges are not specialized to teach learners with hearing impairment because most African governments prefer to offer cheap training at the expense of specialized training which is comparatively expensive. Regarding the level of teaching learning materials, the respondents rated chairs, tables and charts as being available with means of 3.48, 3.47 and 2.90 respectively which implies that parents of learners have the ability to buy them while the mean score for radios, models, televisions, and projectors indicated that few are available. For compensatory devices, the respondents rated the level of availability of hearing aid as being few and that of loud speakers were rated to be very few with means of 1.52 and 1.49 respectively, implying that parents need support to supply these resources regarded to be expensive. Table 2 also indicates that the level of communication resources is few particularly the communication boards, pictogram, tape recorders, ideogram and acoustic treatment devices. Overall the mean score for communication resources was 1.73 indicating low levels of availability of communication facilities for the hearing impaired learners in East Karachuonyo division. This implies that most of the communication resources are beyond the means of parent that are left to take care of most educational expenses.

**Extent of inclusion of the hearing impaired learners**

The third objective of the study was to determine the extent of inclusion of the hearing impaired learners in regular Primary schools in East Karachuonyo Division, Homabay County. Findings on this objective are presented in table 2. The extent of inclusion in this study was conceptualized in terms of inclusive setting and curriculum and integration. Table 2 displays the mean scores which are ranked
according to the characteristics from the highest to the smallest score on each of the three elements.

**Table 3**

**Level of inclusion of the hearing impaired learners**

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Interpretation</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inclusive setting</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free interaction of learners with hearing impairment and those without</td>
<td>3.20</td>
<td>High</td>
<td>1</td>
</tr>
<tr>
<td>Friendly environment for learners with hearing impairment is accorded</td>
<td>2.96</td>
<td>High</td>
<td>2</td>
</tr>
<tr>
<td>Special room used to keep resources for learners with special needs available</td>
<td>2.04</td>
<td>Low</td>
<td>3</td>
</tr>
<tr>
<td>Resources room set aside for learners with special needs is available</td>
<td>2.03</td>
<td>Low</td>
<td>4</td>
</tr>
<tr>
<td><strong>Sub average mean</strong></td>
<td><strong>2.56</strong></td>
<td><strong>High</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Curriculum</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Same curriculum context</td>
<td>3.48</td>
<td>Very high</td>
<td>1</td>
</tr>
<tr>
<td>Same teaching time is used to teach all learners</td>
<td>3.47</td>
<td>Very high</td>
<td>2</td>
</tr>
<tr>
<td>Remedial classes availed for learners with hearing impairment</td>
<td>2.90</td>
<td>High</td>
<td>3</td>
</tr>
<tr>
<td>Special teaching aid are availed to teach learners with hearing Impairment</td>
<td>2.41</td>
<td>Low</td>
<td>4</td>
</tr>
<tr>
<td><strong>Sub average mean</strong></td>
<td><strong>3.07</strong></td>
<td><strong>High</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Integration</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learners with hearing impairment are combined with those without H impairment in learning.</td>
<td>3.30</td>
<td>Very high</td>
<td>1</td>
</tr>
<tr>
<td>All Learners are combined in co-curricular activities</td>
<td>3.17</td>
<td>High</td>
<td>2</td>
</tr>
<tr>
<td>All learners are combined in both curricular and co-curricular activities</td>
<td>3.13</td>
<td>High</td>
<td>3</td>
</tr>
<tr>
<td>Learners are not combined in both co-curricular and curriculum activities</td>
<td>1.98</td>
<td>Low</td>
<td>4</td>
</tr>
<tr>
<td><strong>Sub average mean</strong></td>
<td><strong>2.89</strong></td>
<td><strong>High</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Source: Primary data 2012**

Means on inclusive setting indicate that, there is free interaction of the hearing impaired with those without impairment, mean=3.20, the environment was
rated to somehow friendly, mean=2.96, implying that learners with hearing impairment in the inclusive setting are naturally accommodated by other learners hence they are accorded social acceptance in the learning environment. However, special rooms used to keep resources for learners with special needs and special rooms set aside for these learners were rated to be few with means of 2.04 and 2.03 respectively, implying that provision of special rooms which is left as an educational burden to the parent cannot be availed due to high poverty index among most African parents.

Means on the second aspect of extent of inclusion (i.e. curriculum) in table 3 indicate that some curriculum contexts are available, teaching time is availed to teach all learners, remedial classes are organized for learners with hearing impairment, with means of 3.48, 3.47 and 2.90 respectively implying that free services which can be afforded by teachers are availed to all learners without discrimination. However, extra time above the time set for learners without disability is required to give specialized attention. Special teaching aid availed teach learners with hearing impairment are few as this requires monetary attention to be availed. As regards to integration of learners with hearing impairment, most respondents indicated that, learners with hearing impairment are combined with those without impairment in learning, as well as in co-curricular activities. Overall the extent of inclusion was rated to be high. This is an indication that learners are given all the services within the means of relevant service providers, but lack services that require direct financial support which is a common phenomenon experienced by most poor societies.

**Relationship between level of educational resources and inclusion of hearing impaired**

In this section findings on the fourth objective of the study are presented involving testing of the pertinent hypothesis using Pearson Linear Correlation Coefficient
Table 4 presents the findings from testing of the first null hypothesis. The objective was to determine if there is a significant relationship between educational resources for hearing impaired learners and their inclusion in regular Primary schools in East Karachuonyo Division, Homabay County-Kenya.

The hypothesis (H₀) was that, there is no significant relationship between educational resources and inclusion of learners with hearing impairment in regular primary schools.

To test this hypothesis, PLCC was used and table 4 shows the PLCC for the two variables.

### Table 4

<table>
<thead>
<tr>
<th>Variables Correlated</th>
<th>r-value</th>
<th>Sig.</th>
<th>Interpretation</th>
<th>Decision on H₀</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Human Resources Vs Level of Inclusion of the hearing impaired learners</td>
<td>0.284</td>
<td>0.004</td>
<td>Significant correlation</td>
<td>Rejected</td>
</tr>
<tr>
<td>Teaching and learning materials Vs Level of Inclusion of the hearing impaired learners.</td>
<td>0.267</td>
<td>0.007</td>
<td>Significant correlation</td>
<td>Rejected</td>
</tr>
<tr>
<td>Compensatory Vs Level of Inclusion of the hearing impaired learners</td>
<td>0.049</td>
<td>0.631</td>
<td>Moderate relationship</td>
<td>Accepted</td>
</tr>
<tr>
<td>Communication devices Vs Level of Inclusion of the hearing impaired learners</td>
<td>0.310</td>
<td>0.002</td>
<td>Significant correlation</td>
<td>Rejected</td>
</tr>
<tr>
<td>Level of Education Resources Vs Level of Inclusion of the hearing impaired learners</td>
<td>0.302</td>
<td>0.002</td>
<td>Significant relationship</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

**Source: Primary data 2012**
Table 4 shows that, the level of education resources have a positive significant relationship with the extent of inclusion of learners with hearing impairment in East Karachuonyo division with $r = 0.302$, sign $= 0.002$ leading to the rejection of the null hypothesis to the effect that the level of education resource availability is significantly linearly correlated with extent of inclusion of the hearing impaired learners in regular Primary schools in East Karachuonyo Division, Homabay County-Kenya. Specifically three out of the four elements of education resources are significantly correlated with the level of inclusion while one (i.e. level of compensatory resources had a moderate relationship. This is so because its sig.$=0.631$ is greater than the popular sig in social sciences of 0.05.

**Regression analysis on the relationship between the level of education resources and Extent of inclusion of the hearing impaired learners**

The correlation analysis made revealed that most of the types of education resources considered were significantly correlated with the extent of inclusion of the hearing impaired learners. However, a deeper analysis intended to establish the contribution of each type of education resources towards inclusion was made using regression analysis. The result of this analysis is reported in table 5
Regression Analysis on Level of Education Resources and Extent of inclusion of the hearing impaired learners

<table>
<thead>
<tr>
<th>Variables regressed</th>
<th>Adjusted $r^2$</th>
<th>Sig.value</th>
<th>Interpretation</th>
<th>Decision on $H_0$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of education resources Vs Extent of inclusion of hearing impaired learners</td>
<td>0.16</td>
<td>0.000</td>
<td>Significant effect</td>
<td>Rejected</td>
</tr>
<tr>
<td>Level of human resources Vs Extent of inclusion of hearing impaired learners</td>
<td>0.223</td>
<td>0.038</td>
<td>Significant effect</td>
<td>Rejected</td>
</tr>
<tr>
<td>Level of teaching and learning resources Vs extent of inclusion of hearing impaired learners</td>
<td>0.200</td>
<td>0.044</td>
<td>Significant effect</td>
<td>Rejected</td>
</tr>
<tr>
<td>Level of compensatory resources Vs extent of inclusion of hearing impaired learners</td>
<td>-0.225</td>
<td>0.142</td>
<td>Significant effect</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Source: primary data 2012

Table 5 shows that level of education resources collectively impact the extent of inclusion of learners with hearing impairment ($F=5.723; \text{Sig.} = 0.000$) accounting for 16% of the variation in the extent of inclusion. The findings in table 5 also indicate that human resources had the largest beta co-efficient ($\beta = 0.223$) followed by teaching/learning resources ($\beta = 0.200$) and communication resources trails with $\beta = -0.285$. These findings established that the level of education resources put together and independently significantly affect the extent of inclusion of the hearing impaired learners apart from the level of compensatory resources which had no significant relationship.
CHAPTER FIVE

FINDINGS, CONCLUSION AND RECOMMENDATION

This chapter reviewed the research study, educational resources and inclusion of hearing impaired learners in inclusive primary schools in East Karachuonyo division.

Findings

The following were the overall findings based on the research objectives on the profile of the respondents in terms of age, gender, highest level of educational attainment and number of years in the school;

The findings revealed that the females dominated the sample at 51(51%) and males were 49(49%) this was the expectation of the researcher because Kenya, like many African countries has a big number of teachers in the teaching force than their male counterparts. The highest number of the respondents were in the age bracket of 30 – 39 who represented (33)33% of the sample while the least category was 60 and above representing only 1(1%). cumulatively 84% were below 50 years. On the educational qualification 63% had no qualification on special needs, 22% had diploma and only 6% were degree holders. This implied that most teachers colleges in Kenya do not train teachers on special needs. The findings as per the number of years served in the schools revealed that 62(62%) of the respondents had served their schools for 1 - 5 years and 11(11%) had worked for over 10 years, the findings indicate that majority of the respondents, 89% had served for less than 10 years implying that teacher retention in schools is low.

On the level of educational resources used in the inclusive schools in East Karachuonyo division, Homabay County, the level of educational resources in this study was conceptualized in terms of human resources, teaching and learning materials, compensatory devices and communication resources. Human resource category that ranked highest were regular teachers with a mean of 3.61 while
audiologists ranked the lowest at 1.52. This implied that most human resource in schools are teachers who are not trained in special needs. The general finding was that on average there were a few human resources in inclusive schools. The result on the teaching and learning resources revealed that chairs, tables and charts were available with mean of 3.48, 3.47 and 2.90 respectively. On the contrary, radios, models, televisions and projectors were few in schools with televisions scoring a paltry mean of 1.47 meaning that very few televisions are available in schools. Regarding compensatory resources, the respondents rated the level of availability of hearing aids as being few and that of loudspeaker as being very few with means of 1.52 and 1.49 respectively. Communication resources were few particularly communication boards, pictograms, tape recorders, ideograms and acoustic treatment devices. The overall mean score for communication resources was 1.73 indicating the low level of availability of communication facilities for the hearing impaired in East Karachuonyo division. On the extent of inclusion of the hearing impaired learners, the study was conceptualized in terms of inclusive setting, curriculum and integration. The means on inclusive setting indicated that there is free interaction of the hearing impaired learners with those without impairment at a mean of 3.20. The environment was rated to be somehow friendly, scoring a mean of 2.96 while special room to keep resources for the hearing impaired learners and special room set aside for these learners were rated to be few with means of 2.04 and 2.03 respectively. This implies that most schools graded as inclusive settings have few resources to meet the demands of learners with hearing impairment. The other aspect tested was curriculum used in the inclusive schools which revealed that some context was available. Teaching time is availed to teach all learners implying that curriculum is not adapted to suit learners with hearing impairment. Remedial classes are organized for all learners. The three aspects scored means of 3.48, 3.47 and 2.90 respectively. Special teaching aids to teach hearing impaired learners were few. As regards to integration of learners with hearing impairment,
most respondents indicated that learners with hearing impairment are combined with those without impairment in learning. On overall, the extent of inclusion was rated to be high.

The relationship between the level of educational resources and inclusion of the hearing impaired learners was tested to have significant relationship in East Karachuonyo division with $r = 0.302$, sign $= 0.002$, leading to the rejection of the null hypothesis to the effect that the level of educational resource availability is significantly linearly correlated with the extent of inclusion of the hearing impaired learners in East Karachuonyo Division, Homabay County. Specifically, three out of four elements of educational resources are significantly correlated with the level of inclusion, while one (i.e. level of compensatory resources) had a moderate relationship. This is so because its sig. $=0.631$ is greater than the popular sig in social sciences of 0.05. This led to the rejection of the null hypothesis which stated that there is no significance relationship between the level of educational resources and inclusion of the hearing impaired learners in East Karachuonyo Division, Homabay County, Kenya.

**Conclusion**

The study validated the theory of *social learning theory and social mobilization theory* which brings interaction of various resources among all learners so as to create a link between the learner and the stimuli, which serves as the content materials to be learnt. On the whole multi disciplinary team involvement in the learning of learners with hearing impairment mediates their learning.

The study revealed that resource availability in the inclusive setting cannot meet the learning demand of learners hindering direct interaction between learners and resources. Only regular teachers are available to mediate in the learning of the learners who are hearing impaired at a mean of 3.61. Other resources that are
significantly required to mediate learning of the hearing impaired learners in the inclusive schools in East Karachuonyo division, Homabay County are compensatory devices with loudspeakers recording availability mean of 1.47 and communication resources which are minimal in schools, though they provide a learning link to the hearing impaired learners.

The study further revealed that there is a significant relationship between educational resources and inclusion of the hearing impaired learners in East Karachuonyo Division, Homabay County due the fact that most of the educational resources for hearing impaired learners are not available in schools contributing to their dismal performance in academics. Inclusive schools give the learners opportunity to learn in their own environment free from prejudice and avoiding the danger of seclusion which hinders social development of the learner. Free interaction is imminent as revealed by the study. Other aspects of inclusion present include friendly environment, remedial classes and combining learners in learning activities which fosters academic and social development. However, curriculum should be adapted to suit specific needs of learners with hearing impairment and teaching time adjusted accordingly.

**Recommendations**

From the findings of the research and conclusion, the researcher recommended the following strategies to improve on the inclusion of the learners with hearing impairment in East Karachuonyo division Homabay County:

1. The Ministry of education should train human resource such as sign language interpreters, teacher aide, education psychologists, note takers and audiologists to teach learners with hearing impairment..
2. The government of the republic of Kenya should provide compensatory resources such as loudspeakers and hearing aids for learner with hearing impairment.

3. The Ministry of education should provide teaching and learning materials such as radios, models, televisions and projectors for teaching learners with hearing impairment.

4. The government of the republic of Kenya should fund the procurement of communication resources such as pictograms, tape recorders, ideograms and ensure acoustic treatment in the learning environment for hearing impaired learners.

5. The Ministry of education should fund inclusive schools to avail special resource rooms for specialized learning of hearing impaired learners.

6. The Ministry of education of education should ensure integration of learners by ensuring that learners with hearing impairment learn alongside those without disability.

7. Parents and guardians of learners with hearing impairment should be involved in the provision of remedial services to their children while at home to bridge the gap that exists between learners with hearing impairment learning together with their peers without special needs.
REFERENCES


Njuki, E. and Ogonda, G.(2001). Learners with learning difficulties in an inclusive setting, Kampala, Uganda, UNISE/KISE.


39


Raya S, (2009). Challenges of inclusive education in Kenya a case study of selected primary school in Mvita division, Mombasa district Kenya Kampala, KIU


SPRED (2001). Teaching and learning in the primary classroom (Core Module) Nairobi, Kenya, K.I.E.


OFFICE OF THE HEAD OF DEPARTMENT, EDUCATION
COLLEGE OF HIGHER DEGREES AND RESEARCH (CHDR)

Date: April 24, 2012

RE: REQUEST FOR FREDRICK ODHIAMBO OJIJO MED/18489/111/DF
TO CONDUCT RESEARCH IN YOUR ORGANIZATION

The above mentioned is a bonafide student of Kampala International University
pursuing Masters of Education in Educational Management and Administration.

He is currently conducting a research entitled "Educational Resources and
Inclusion Hearing Impaired Learners in Primary Schools in East
Karachuonyo Division Homabay County- Kenya."

Your organization has been identified as a valuable source of information pertaining
his research project. The purpose of this letter is to request you to avail him with
pertinent information he may need.

Any information shared with him from, your organization shall be treated with utmost
confidentiality.
Any assistance rendered to him will be highly appreciated.

Yours truly,

Dr. Fred Semugenyi
Head of Department, Education, CHDR

Dr. Sofia
Principal
APPENDIX 1B

TRANSMITTAL LETTER FOR THE RESPONDENTS

Dear sir/madam

Greetings

I am a candidate for a master in Educational Management and Administration at Kampala International University with a thesis on Educational Resources and Inclusion of hearing impaired learners in East Karachuonyo Division, Kenya. As I pursue to complete this academic requirement may I request your assistance by being part of this study.

Kindly provide the most appropriate information as indicated in the questionnaire and please do not leave any item unanswered. Any information from you shall be for academic purpose only and will be kept with utmost confidentiality.

May I retrieve the questionnaire 2 weeks after you receive them, Thank you very much in advance.

Yours truly,

Frederick Odhiambo Ojijo

Masters candidate

Date ......................................
Appendix II

Clearance from Ethics Committee

Date ___________________

Candidate’s Data
Name: Frederick Odhiambo Ojijo...
Reg No. MED/18489/111/DF

Course: Master in Educational Management and Administration
Title of the Study. Educational Resources and inclusion of hearing impaired learners
in East Karachuonyo Division, Kenya.

Ethical review checklist
The study reviewed considered the following
- Physical safety for human subjects
- to conduct the study
- Consent.
- Citation/authors recognized

Results of Ethical Review
- Approved
- Conditional (to provide ethics committee with corrections)
- Disapproved/resubmit proposal

Ethics Committee (Name and Signature) Chairperson
Chairperson____________________
Members ________________________
APPENDIX III

INFORMED CONSENT

I am giving my consent to be part of the research study of Mr. Frederick Odhiambo Ojjio that will focus on Educational Resources and inclusion of hearing impaired learners in East Karachuonyo Division, Kenya.

I shall be assured of privacy, anonymity and confidentiality and that I will be given the option to refuse participation and right to withdraw my participation any time.

I have been informed that the research is voluntary and that the results will be given to me if I ask for it.

Initials: ____________________________________________

Date: _________________  ________
APPENDIX IV

RESEARCH INSTRUMENT

Questionnaire for Teacher

I Fredrick Odhiambo Ojijo, Registration Number, MED/18489/111/DF is conducting research on Educational Resources and Inclusion of learners with hearing impairment in East Karachuonyo Division. This is for the award of Masters in Education in Management and Administration of Kampala International University. The information given will be of great importance for this study and your view as a respondent will be treated with utmost confidentiality.

Section A

Profile of respondents

Tick where appropriate

Gender
____ Male
____ Female

1.1 Age

____ (a) 20 – 29
____ (b) 30 – 39
____ (c) 40 – 49
____ (d) 50 – 59
(e) 60 and above

1.3 Educational qualification

- Certificate in Special Needs Education
- Diploma in Special Needs Education
- Degree in Special Needs Education
- No qualification in Special Needs Education

1.4 Number of years in the school

- 1 – 5 years
- 6 – 10 years
- Over 10 years

Section B

Educational resources

Direction: Write your rating in the spaces provided for each option which corresponds to your choice for the remaining questions. Kindly use the ratings as below.

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<tr>
<th>Score</th>
<th>Response</th>
<th>Description</th>
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<tr>
<td>1</td>
<td>Strongly agree</td>
<td>You agree with no doubt at all</td>
</tr>
<tr>
<td>2</td>
<td>Agree</td>
<td>You agree with some doubt</td>
</tr>
<tr>
<td>3</td>
<td>Disagree</td>
<td>You disagree with some doubt</td>
</tr>
<tr>
<td>4</td>
<td>Strongly disagreed</td>
<td>You disagreed with no doubt at all</td>
</tr>
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</table>

1. Human resources in this school:
Teacher aide is available

1. Note takers are available
2. Sign language interpreters are available
3. Audiologists are available
4. Educational psychologists are available
5. Regular teachers are available

2. Teaching and Learning Materials

1. Chairs are available
2. Tables are available
3. Televisions are available
4. Radios are available
5. Projectors are available
6. Charts are available
7. Models are available

3. Compensatory Devices for hearing impaired learners in this school

1. Heating aids are available
2. Loudspeakers are available

4. Communication resources for hearing impaired learners in this school

1. Pictograms are available
2. Ideograms are available
4.3 Tape recorders are available
4.4 Communication boards are available
4.5 Acoustic treatment devices are available

Section C

1. Inclusion of learners with hearing impairment

   Inclusive setting

   1.1 Friendly environment for learners with hearing impairment is accorded.

   1.2 Free interaction of learners with hearing impairment with those without disability.

   1.3 Special rooms used to keep resources for learners with hearing impairment is available

   1.4 Resource room set aside for learners with specific special needs is available.

2. Curriculum in the inclusive setting

   2.1 Same teaching time used to teach all learners.

   2.2 Same curriculum content used to teach all learners

   2.3 Remedial classes are availed for learners with hearing impairment

   2.4 Special teaching aids are availed to teach learners with hearing impairment.

3. Integration
3.1 Learners with hearing impairment are combined in the teaching with those without disability.

3.2 All learners are combined in co-curricular activities.

3.3 All learners are combined in both curricular and co-curricular activities.

3.4 Learners are not combined in both curricular and co-curricular activities.
<table>
<thead>
<tr>
<th><strong>Name</strong></th>
<th>FREDRICK ODHIAMBO OJIJO</th>
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<tbody>
<tr>
<td><strong>Height</strong></td>
<td>5' 7' inches</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>67 kg</td>
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<tr>
<td><strong>Nationality</strong></td>
<td>Kenyan</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
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<td><strong>Religion</strong></td>
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<tr>
<td><strong>Profession</strong></td>
<td>Teacher</td>
</tr>
<tr>
<td><strong>Race</strong></td>
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<td><strong>ID No</strong></td>
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<td><strong>Date of Birth</strong></td>
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<tr>
<td><strong>Age</strong></td>
<td>37</td>
</tr>
<tr>
<td><strong>Address</strong></td>
<td>P.O BOX 167, Kendu Bay</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td>Male</td>
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<td><strong>Home District</strong></td>
<td>Rachuonyo North</td>
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</table>
EDUCATION BACKGROUND

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<th>YEARS</th>
<th>SCHOOL/ INSTITUTION</th>
<th>AWARD</th>
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<td>2010-2012</td>
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<td>Masters of Education</td>
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<tr>
<td>2007-2010</td>
<td>Kampala International University</td>
<td>Bachelor of education</td>
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<tr>
<td>2004-2007</td>
<td>Kenya Institute of Special Education</td>
<td>Diploma Special Needs Education</td>
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<tr>
<td>1996-1998</td>
<td>Thogoto Teachers College</td>
<td>Certificate in Primary Education, PTE</td>
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<tr>
<td>1990-1993</td>
<td>Kanyawanga High School</td>
<td>KCSE</td>
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<tr>
<td>1981-1989</td>
<td>Kotieno Gumba Primary School</td>
<td>KCPE (STD8)</td>
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</tbody>
</table>

WORKING EXPERIENCE

As a teacher, trained Certificate 5 years.

As a trained Diploma holder 5 years

As a diploma teacher for 3 years

As a Graduate teacher 2 years.

HOBBIES

Music
Reading Books
Associating with others
REFEREES
Stanley Okoth Odera
Teacher-Rongo Nyagowa primary school
Tel: 0717331934
Patrick Obong’o Aduwi
Head teacher- Kotieno Gumba Primary School
Tel: 0721716979
Kennedy Okwach Osano
Head teacher Nyaburi Primary School
Tel: 0725903631

I declare that the above information given is true to the best of my knowledge.