

**HEARING IMPAIREMENT AND ACADEMIC PERFORMANCE
IN MATUNGU DIVISION KENYA**

**BY
OPARI H. S. ANTONY
BED/13622/61/DF**

**A RESEARCH REPORT SUBMITTED TO THE INSTITUTE OF
OPEN AND DISTANCE LEARNING IN PARTIAL FULFILMENT
OF THE REQUIREMENT FOR THE AWARD OF BACHELORS
OF EDUCATION IN SPECIAL NEEDS OF KAMPALA
INTERNATIONAL UNIVERSITY**

NOVEMBER, 2008

DECLARATION

I Opari H.S Anthony of admission number BED/ 13622/61/DF do declare that this research report is my original work and that it has never been submitted to any academic institution for an award of a degree or its equivalent. Where the work of other have been used acknowledgement has been made

Sign. 

OPARI H.S ANTHONY

Date 27/09/2008

DEDICATION

This work is dedicated to the memory of my beloved wife Mrs. Margaret Ashika who at all time gave me support I could require during my two years of study at Kampala International University.

Also my Father who assisted me financially.

APPROVAL

This research report has been written and approved under the supervision of Mr. Kiweewa as the supervisor.

Sign. 

KIWEEWA IMMANUEL

Date. 9-10-2008

ACKNOWLEDGEMENT

I acknowledge the contributed of various individuals that helped me accomplish this research work. My Wife Margaret Ashika who used to give me company at the table and provided technical advice when ever I needed it.

The Mumias EARC (Educational Assessment Resource Centre). That provided information. Special thanks go to Kampala International University staff that guided and trained me to gather and present the information.

I also acknowledge the contribution of my Head teacher who gave me time to carrying out research.

Lastly I acknowledge the work of my supervisor Mr. Kiweewa who gave technical advise and tirelessly went through my work several times to enabled me to come out with a final copy of the report

TABLE OF CONTENT

DECLARATION.....	i
DEDICATION.....	ii
APPROVAL.....	iii
ACKNOWLEDGEMENT.....	iv
TABLE OF CONTENT.....	v
ABSTRACT.....	vii
CHAPTER ONE.....	1
INTRODUCTION.....	1
2.0 Over View.....	1
1.1 Background to the study.....	1
1.2 Statement of the Problem.....	1
1.3 Objectives of the study.....	2
1.3.1 General Objective.....	2
1.3.2 Specific Objectives.....	2
1.4 Research Questions.....	2
1.5 Scope of the Study.....	3
1.6 The Significance of the Study.....	3
CHAPTER TWO.....	4
LITERATURE REVIEW.....	4
2.0 Introduction.....	4
2.1. Historical Background of Hearing Impaired.....	5
2.2 Types and causes of hearing impairment.....	5
2.3 Characteristics of Hearing Impaired.....	12
2.4 Effects of Hearing Impaired.....	12
2.5 Methods of Dealing with Hearing Impaired Learners.....	13
CHAPTER THREE.....	14
RESEARCH METHODOLOGY.....	14
3.0 Research Approach/ Design.....	14
3.1 Population.....	14
3.2 Sampling and Sampling Techniques.....	14
3.3 Research Instruments.....	14
3.4 Data Analysis Procedure (Statistical Treatment of Data.....	15
3.5. Data Collection Procedure.....	15
CHAPTER FOUR.....	16
DATA PRESENTATION ANALYSIS AND INTERPRETATION.....	16
4.0 Introduction.....	16
4.1 Back Ground Information of the Respondents.....	16
4.2 Academic Performance of Hearing Impaired Learners.....	20
CHAPTER FIVE.....	23
DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATIONS.....	23
5.0 Introduction.....	23
5.1 Discussion of major findings.....	23
5.3 Conclusion.....	24
5.4 Recommendation.....	24

REFERENCE.....	26
APPENDIX I.....	27
RESEARCH BUDGET.....	27
APPENDIX II.....	28
QUESTIONNAIRE	28
APPENDIX IV	30
ACADEMIC PERFORMANCE DATA.....	30

ABSTRACT

The purpose of this study was to evaluate the impact of hearing impairment on academic performance of children with hearing impairment attending primary school in Matungu division Kenya. Scores in academic performance for 10 hearing impaired children and 10 normal children attending primary school in the division were obtained from the study schools. Questionnaires were also employed to collect data from teachers. Statistical analysis revealed that teachers have a positive attitude toward the hearing impaired learners in the division, it was also established that there is no significant difference in the mean performance between the hearing impaired and the normal learners in the division. The study concluded in Matungu division the hearing impaired perform at the same level as the normal. It was recommended that the teachers in the division should continue giving special attention to hearing impaired learners in the division and also give other necessary support to help uplift the performance of these learners.

CHAPTER ONE

INTRODUCTION

2.0 Over View

The chapter presents the introduction to the study; it gives the background to study, the problem statement, and the objectives of the study, the research question, the scope and significance of the study

1.1 Background to the study

Previous research findings have shown that children with a hearing loss are ten times more likely to suffer academic difficulties than their normal hearing peers. It is also established that one third of the children examined repeated grades or required resource assistance in school. Hearing problems affect approximately over one million Kenyan children and infants through geriatrics. Hearing loss can have a devastating impact on family relations, work and academic performance. Persons with hearing impairment may be unable to: hear speech and other sounds loudly enough and/or understand and use speech even when it is loud enough. There is a significant number of such children in Matungu Division in Kenya and there is a general belief that this impairment have a bearing on the academic performance of the learners in the division thus the study set out to establish the effect hearing impairment on the academic performance in Matungu division Kenya.

1.2 Statement of the Problem

Kenyan Youngsters who face the world with a hearing impairment occasionally are classified as learning disabled as they begin and continue their education. Literally this designation is incorrect but some times it turns out to be true if such children are not helped out. In some cases, hearing aids are all a child needs for a return to the educational mainstream, "Communication skills, including language and speech development, are often taken for granted, and most parents and teachers do not realize that this

development process can be severely impeded, even if only a mild hearing loss exists prior to the child's language skills development. In Matungu division primary schools hearing impaired learners there have at times lagged behind in terms of academic performance because of their inclusion in the regular setting and even with in the special schools is not accompanied by adequate facilitation that would enable them compete favorable with the normal children. It is against such a background that this study set out to establish whether there is a significant effect of hearing impairment on academic performance in Matungu division Kenya.

1.3 Objectives of the study

1.3.1 General Objective

To examine the effects of hearing impairment on academic performance in Matungu division Mumias district western province in Kenya

1.3.2 Specific Objectives

- To establish the main causes of hearing impairment
- To assess the academic performance of hearing impaired learners.
- To assess the attitude of teachers towards the hearing impaired learners

1.4 Research Questions

- What is the main causes of hearing impairment
- What is the performance levels of the hearing impaired learners in Matungu Division
- What is the attitude of parents community teachers and peers towards the Hearing impaired learners

1.5 Scope of the Study

The study looked at the effect of hearing impairment on the academic performance of learners in Matungu zone which is located in Munias District of Kenya. Matungu division has one Zone and four bases. The special needs institutions are two, Matungu special school and Lunganyiro small home.

1.6 The Significance of the Study

The findings of the study will help to provide information to the policy makers and Government on whether effect of hearing impairment on the performance of children in Matungu division so as to enable it put in place policies that will help out these children

The community will learn from the study the ways of dealing with the hearing impaired and the importance of having a positive attitude towards such children and how this can help them to cope up with the developments of the society.

The study will make the parents aware of the causes of hearing impairment and the problems learners with hearing impairment encounter in schools and this will enable them come up with strategies and work in harmony with other stakeholders to help these children to learn.

The teachers will get knowledge of the required intervention method to improve the academic performance of the hearing impaired learners Matungu Division.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Hearing impaired manifests itself in a variety of behavioral domains. Among the most serious and obvious deficits is delayed language development hearing impairment is a delay or slowness in child mental development, (Randiki F 2002). The child learns things more slowly than other children of his age. Hearing impairment range from mild to severe. The child who is mildly impaired takes long to learn certain skills but with help he can grow up and care for himself. The child may stay at the mental age of a baby and will need always to be cared for in many ways.

According to Ndurumo (1993) special needs education in Kenya started during the Second World War. It was to rehabilitate army officers who returned from Second World War in 1945 with injuries. Services were developed for those with physical visual, visual impairment and brain damage. Education was being managed by churches like Salvation Army and Lutheran Church they were involved in activities of praying and counseling voluntary and non governmental organizations such as Rotary club, Kenya Red cross played an important role at the start of special needs education. Churches provided medical care food recreation and other facilities in rehabilitation homes

The earliest special schools grew to cater for the following broad category of learners

- Visual impaired
- Physical handicapped
- Mentally handicapped
- Hearing impaired

2.1. Historical Background of Hearing Impaired

Human communication has been a major interest to the society since man's early history oral speech is the most universally used form of communication among all societies. Despite procedures prescribed to alleviate the conditions, the problem remains unsolved philosophers and physicians suggest that stuttering problem in communication disorders has continued to be a problem even in modern classroom. Hence the teacher may be faced with the challenges of a child who can not satisfactorily ask a question nor express ideas. Research shows that long ago speech correction, pathologist therapist did not work with mentally retarded or severely impaired children. In fact the current training takes for granted the numerous types of handicapped conditions and various degree of severity that has become components of speech language. In spite of adequate hearing some mentally challenged children do not develop spoken language or oral language. This may be due to several mental retardation such as cerebral palsy that makes the child unable to perform and co-ordinate the motor movement involving speech

In some, causes the problem is due to dysfunction of the brain process (Aphasia) and other causes like Autism

2.2 Types and causes of hearing impairment

Hearing impairment comes from different biologic causes. Most commonly, the ear is the affected part of the body.

Conductive

Conductive hearing loss occurs when sound is not normally conducted through the outer or middle ear or both. Since sound can be picked up by a normally sensitive inner ear even if the ear canal, ear drum, and ear ossicles are not working, conductive hearing loss is often only mild and is never worse than a moderate impairment. Hearing thresholds will not rise above 55-60 dB from outer or middle ear problems alone. Generally, with pure conductive hearing loss, the *quality* of hearing (speech discrimination) is good, as long as the sound is amplified loud enough to be easily heard, (Conroy S W and Derr K. E. 1971).

A conductive loss can be caused by any of the following: Ear canal obstruction Middle ear abnormalities: Tympanic membrane Ossicles Inner ear abnormalities: Superior canal dehiscence syndrome.

Sensorineural hearing loss

A sensorineural hearing loss is due to insensitivity of the inner ear, the cochlea, or to impairment of function in the auditory nervous system. It can be mild, moderate, severe, or profound, to the point of total deafness. This is classified as a disability under the ADA and if unable to work is eligible for disability payments.

The great majority of human sensorineural hearing loss is caused by abnormalities in the hair cells of the organ of Corti in the cochlea. There are also very unusual sensorineural hearing impairments that involve the VIIIth cranial nerve, the Vestibulocochlear nerve or the auditory portions of the brain. In the rarest of these sorts of hearing loss, only the auditory centers of the brain are affected. In this situation, central hearing loss, sounds may be heard at normal thresholds, but the quality of the sound perceived is so poor that speech can not be understood.

Most sensory hearing loss is due to poor hair cell function. The hair cells may be abnormal at birth, or damaged during the lifetime of an individual. There are both external causes of damage, like noise trauma and infection, and intrinsic abnormalities, like deafness genes.

Sensorineural hearing loss that results from abnormalities of the central auditory system in the brain is called Central Hearing Impairment. Since the auditory pathways cross back and forth on both sides of the brain, deafness from a central cause is unusual.

According to, Gordenson R.M. (1978) the typical causes of Sensorineural hearing loss are the following

Long-term exposure to environmental noise

Populations of people living near airports or freeways are exposed to levels of noise typically in the 65 to 75 dB (A) range. If lifestyles include significant outdoor or open window conditions, these exposures over time can degrade hearing. The U.S. EPA and various states have set noise standards to protect people from these adverse health risks. The EPA has identified the level of 70 dB(A) for 24 hour exposure as the level necessary to protect the public from hearing loss and other disruptive effects from noise, such as sleep disturbance, stress-related problems, learning detriment, etc. (EPA, 1974).

Noise-Induced Hearing Loss (NIHL) typically is centered at 3000, 4000, or 6000 Hz. As noise damage progresses, damage starts affecting lower and higher frequencies. On an audiogram, the resulting configuration has a distinctive notch, sometimes referred to as a "noise notch." As aging and other effects contribute to higher frequency loss (6-8 kHz on an audiogram), this notch may be obscured and entirely disappear.

Louder sounds cause damage in a shorter period of time. Estimation of a "safe" duration of exposure is possible using an *exchange rate* of 3 dB. As 3 dB represents a doubling of intensity of sound, duration of exposure must be cut in half to maintain the same energy dose. For example, the "safe" daily exposure amount at 85 dB A, known as an exposure action value, is 8 hours, while the "safe" exposure at 91 dB(A) is only 2 hours (National Institute for Occupational Safety and Health, 1998). Note that for some people, sound may be damaging at even lower levels than 85 dB A. Exposures to other ototoxins (such as pesticides, some medications including chemotherapy, solvents, etc.) can lead to greater susceptibility to noise damage, as well as causing their own damage. This is called a *synergistic* interaction.

Genetic

Hearing loss can be inherited. Hallahan D P and Kauffman J.M (1997), Opines that both dominant gene and recessive genes exist which can cause mild to profound impairment.

If a family has a dominant gene for deafness it will persist across generations because it will manifest itself in the offspring even if it is inherited from only one parent. If a family had genetic hearing impairment caused by a recessive gene it will not always be apparent as it will have to be passed onto offspring from both parents. Dominant and recessive hearing impairment can be syndromic or nonsyndromic. Recent gene mapping has identified dozens of nonsyndromic dominant (DFNA#) and recessive (DFNB#) forms of deafness.

Medications

Some medications cause irreversible damage to the ear, Ogonda G. (2002), and are limited in their use for this reason. The most important group is the aminoglycosides (main member gentamicin).

Various other medications may reversibly affect hearing. This includes some diuretics, aspirin and NSAIDs, and macrolide antibiotics.

Extremely heavy hydrocodone (Vicodin or Lorcet) abuse is known to cause hearing impairment. Commentators have speculated that radio talk show host Rush Limbaugh's hearing loss was at least in part caused by his admitted addiction to narcotic pain killers, in particular Vicodin and OxyContin

Physical trauma

- There can be damage either to the ear itself or to the brain centers that process the aural information conveyed by the ears.
- People who sustain head injury are especially vulnerable to hearing loss or tinnitus, either temporary or permanent.
- Exposure to very loud noise (90 Decibel|dB or more, such as jet engines at close range) can cause progressive hearing loss. Exposure to a single event of extremely loud noise (such as explosions) can also cause temporary or permanent hearing loss. A typical source of acoustic trauma is an excessively loud music concert.

Ongara L.K (2002)

Categories of hearing impairment

Hearing loss is categorized by its severity and by the age of onset. Two persons with the same severity of hearing loss will experience it quite differently if it occurs early or late in life. Furthermore, a loss can occur on only one side (unilateral) or on both (bilateral).

Quantification of hearing loss

The severity of hearing loss is measured by the degree of loudness, as measured in decibels, a sound must attain before being detected by an individual. Hearing loss may be ranked as mild, moderate, severe or profound. It is quite common for someone to have more than one degree of hearing loss (i.e. mild sloping to severe). The following list shows the rankings and their corresponding decibel ranges:

- Mild:
 - for adults: between 25 and 40 dB
 - for children: between 20 and 40 dB
- Moderate: between 41 and 55 dB
- Moderately severe: between 56 and 70 dB
- Severe: between 71 and 90 dB
- Profound: 90 dB or greater

The quietest sound one can hear at different frequencies is plotted on an audiogram to reflect one's ability to hear at different frequencies. The range of normal human hearing (from the softest audible sound to the loudest comfortable sound) is so great that the audiogram must be plotted using a logarithmic scale. This large normal range, and the different amounts of hearing loss at different frequencies, makes it virtually impossible to accurately describe the amount of hearing loss in simple terms such as percentages or the rankings above.

Measuring hearing loss in terms of a percentage is debatable in terms of effectiveness, and has been compared to measuring weight in inches. Though in specific legal situations, where decibels of loss are converted via a recognized legal formula, one can

infer a standardized "percentage of hearing loss" which is suitable for legal purposes only.

Another method for determining hearing loss is the Hearing in Noise Test (HINT). HINT technology was developed by the House Ear Institute, and is intended to measure an ability to understand speech in quiet and noisy environments. Unlike pure-tone tests, where only one ear is tested at a time, HINT evaluates hearing using both ears simultaneously (binaural), as binaural hearing is essential for communication in noisy environments, and for sound localization.

Hard-of-hearing

People who are *hard of hearing* have varying amounts of hearing loss but usually not enough to be considered deaf. Many people who are de How one classifies themselves relative to hearing loss or deafness is a very personal decision and reflects much more than just their ability to hear.

The phrase *hard of hearing*, normally used as an adjective or adverb can also be used as a noun, referring to people with hearing impairment as the *hard of hearing*. People who consider themselves culturally deaf, prefer the term "hard of hearing" or "deaf", and perceive "hearing impaired" as an insult.

Hearing impaired persons with partial loss of hearing may find that the quality of their hearing varies from day to day or from one situation to another or not at all. They may also, to a greater or lesser extent, depend on both hearing-aids and lip-reading. They may perhaps not always be aware of it, but they do admit to it being important to see the speaker's face in conversation.

Many people with hearing loss have better hearing in the lower frequency ranges (low tones), and cannot hear as well or at all in the higher frequencies. Some people may merely find it difficult to differentiate between words that begin with consonantal sounds such as the fricatives or sibilants, z, or th, or the plosives d, t, b, or p. They may be unable to hear thin, high-pitched or metallic noises, such as birds chirping or singing, clocks

ticking, etc. Often, they are able to hear and understand men's voices better than women's.

Others will find their condition so much worse if circumstances in their immediate environment affect the way they are able to use their hearing aids, or prevent them from employing their speech reading skills. A room with a high ceiling and a lot of reverberation will affect the sound of a speaker's voice adversely. The position of the listener, too, sitting at a right angle to the speaker at a long seminar table, thus being able to hear only with one, maybe the ineffectual ear, can make a difference. Difficulties can also arise for the listener trying to lip-read, if the speaker is sitting with his back against the light-source and is in this way obscuring his face. A rule of thumb is that bright lighting is to the hearing-impaired what noise is to the hearing; a source of distraction.

The speaker's accent; the topic under discussion, possibly with many unfamiliar words; the softness of his voice; possibly his having a speech impediment; a habit of holding a hand in front of his mouth or turning his face away at times: all these tendencies cause problems to the hard-of-hearing, especially when they have to rely on lip-reading. The rustling of papers and notebook pages being turned are precisely the noises that will be the first thing hearing-aids pick up.

Noisy situations are especially difficult, because hearing loss affects not only the ability to hear sounds, but also the ability to localize and filter out background noise.

Unilateral hearing loss

People with unilateral hearing loss (single sided deafness/SSD) can hear normally (or better) in one ear, but have trouble hearing out of the other ear. Problems with this type of deficit are inability to localize sounds (i.e. unable to tell where traffic is coming from) and inability to process out background noise in a noisy environment, such as in a restaurant

2.3 Characteristics of Hearing Impaired

Hearing impaired learners do exhibit a variety of characteristics. These characteristics tend to interfere with

- Learning
- Process information
- Adjusting with other peers

Language disorders were most common the vast majority of speech disordered includes substitution and subtraction. Emotional problems were also noted to be prevalence many of them display the following symptoms

- Extreme withdrawal
- Bizarre behavior
- Tantrums
- Aggressive outburst

Have poor memory. The exhibit problem in recalling tasks that are presented only after a few seconds. Poor attention have sensory deficit in attending to relevant stimuli. Poor motivation most of them tend to respond negatively in schools related activities lack of interest in most activities.

2.4 Effects of Hearing Impaired

Hearing impairment represent categories of disorders that may have resulted from any number of different causes including biological and psychological factors where by disorders are included, although hearing and response to sound are average. It has been long recognized that children with communication disorders are at risk of various types of learning disorders literature shows the negative impact dealings with the social emotional and behavioral outcome of children with various types of disorders including statures. The review suggests that children with various types of disorders considered as a group do have an increased rate of psychiatric disorder.

2.5 Methods of Dealing with Hearing Impaired Learners

The search for effective methods of dealing with hearing impairment has become one of the major tasks for those involved with the provision of education and other services for learners with hearing impairment. Lack of adequate skills are perhaps one of the most limiting handicap. There are communication skills living and basic for social intervention and the medium through which learning takes place. Since most children with developmental language disorder need help not only in the linguistic area but also educationally and behaviorally the question of priorities within intervention arises. Unfortunately there is no class/specific record of any research addressed this issue. Literature reveals that progress was hampered too by professional's attitudes and value which saw the task in relation to the hearing impairment children as being custodian rather than developmental and educational. It is also important to remember any medical or environmental factors that could interfere for example abnormalities, seizures disorders, hearing, and loss/lack of environmental stimulation.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Research Approach/ Design

The study employed the qualitative and quantitative research approach to determine the effect of hearing impairment of the academic performance of learners in Matungu division Kenya. Using the quantitative approach data on the performance of the hearing impaired and the normal learners were collected and analyzed while the qualitative approach helped to look for and analyze data on the causes of hearing impairment as well as on the attitude of the community towards the hearing impaired.

3.1 Population

The study targeted teachers and students of Matungu division Kenya. These teachers and pupils were from all the schools in the division with special units

3.2 Sampling and Sampling Techniques

The study used a sample of 20 teachers and 20 pupils. The teachers were selected using purposive sampling because information was needed basically from the teachers that were handling the hearing impaired learners in the special units. To selection of pupils was done using systematic list sampling technique where by lists from the schools with special units were obtained from which a sample was got.

3.3 Research Instruments

A researcher made questionnaires with closed ended and a few open ended items was used to collect data from the teachers. Data was also collected on the performance of the hearing impaired and the normal learners from the schools.

3.4 Data Analysis Procedure (Statistical Treatment of Data)

Descriptive analysis was used to treat the data collected. It involved basically the use of tables and other comparison techniques. Thus it involved calculation of frequencies and percentages for easy interpretation and drawing of conclusions.

3.5. Data Collection Procedure

The researcher prepared a questionnaire after obtaining a letter of authority from the Institute of Open and distance learning Kampala International University (KIU) to allow him approach head teachers of sampled schools for the study to seek permission from them to enable the researcher to carry out data collection in their schools. After permission was granted questionnaires were distributed to the teachers and collected after three weeks

CHAPTER FOUR

DATA PRESENTATION ANALYSIS AND INTERPRETATION

4.0 Introduction

This chapter gives the presentation and analysis and interpretation of data at hand. The data are presented and analyzed according to the objectives set. The back ground characteristics of the respondent were considered first to give a good picture of the respondents that took part in the study

All the questionnaires were gathered from the field after three weeks for analyzing the outcome. The researcher analyzed the questionnaires as drawn from objectives. They include bio data of the respondents section A and specific information section B. The researcher used frequent tables, and percentages as a way of presenting and analyzing the data every frequent table was described and discussed.

4.1 Back Ground Information of the Respondents

4.1. Description of teacher respondents by Gender

Category	Frequency	Percentage
Male	13	60%
Female	7	35%
Total	20	100%

Source: Primary data

Looking at the table 1, the results indicate that most teachers, who teach learners with hearing impairment in Mutungu Division, are male implying that the sample was dominated by female respondents.

4. 2 Age brackets of the respondents

Category	frequency	Percentage
20 – 29	4	20%
30 -40	6	30%
40 above	10	50%
Total	20	100%

Source : primary data.

Finding on the age of the respondents as reflected in table 4.2 reflects that half of the teachers that took part in the study were above 40 years of age while only 20 % were within the age bracket of 20 and 30 years. This implies that many teachers in the special units are experienced teachers possessing the ability to handle the hearing impaired learners.

4. 3 Marital status of teachers

Category	frequency	Percentage
Married	16	80%
Single	4	20%
Total	20	100%

Source: Primary data

Table 4.3 shows that 16 (80 %) of the teachers that took part in the study were married while 4 (20%) were single implying that most teachers in Matungu division particularly those that teach the hearing impaired are married.

4.4 Academic qualification of respondents

Category	frequency	Percentage
P1	16	80%
P2	-	-
Dip	3	15%
Degree	1	5%
Total	20	100%

The results of the study on the academic qualification of teachers show that only few teachers are of highly qualified with degree that is, 5%. Most teachers, 80 % are of P1 Grade implying that they have limited chances of promotions.

Table4. 5 Teaching experience of respondents

Category	frequency	Percentage
1-5	-	-
6 -10	19	95%
Over 10	1	5%
Total	20	100%

Source primary data

Table 4.5 indicates that, most teachers have experiences ranging from 6-10 years implying that they have reasonably served in the profession of teaching which gives them the ability to operate in many situations.

Table 4. 6 How teachers handle the hearing impaired

Category	frequency	Percentage
Teach them with others	19	95%
Teach them separately	1	1%
Total	20	100%

Source primary data 2008

The study findings in table 4.7 indicates that most teachers, 95% handle the hearing impaired by teaching them in an inclusive setting while a few of them that is only 5% teach them separately.

Table 4.7 whether the hearing impaired learner perform at the same level like the Normal pupils

Category	frequency	Percentage
Agree	7	35%
Disagree	10	50%
Not sure	3	15
Total	20	100%

Source primary data

The findings of the study showed that half of the respondents 10, (50%) disagreed with the idea that the hearing impaired can perform like the normal pupils while only 15% of the respondents were not sure.

Table4. 8 What the teachers do to enable the hearing impaired improve on Performance

Category	frequency	Percentage
Give special care	11	55%
Leave them to discover	4	20%
Consider them when marking	5	25%
Total	20	100%

Source primary data 2008

According to the findings in table 4.8, slightly above a half of the respondents, 55% indicated that they give special attention to the hearing impaired learners, 25% consider them while making where as 20% leave them to discover for them selves.

Table 4.9: Availability of enough teaching materials

Category	frequency	Percentage
Yes	5	25%
No	15	75%
Total	20	100%

Source primary data

According to the findings of the study in table 4.9, 15 (75%) of the respondents indicated that there are no enough resources to help in handling the hearing impaired while only 25% showed that the available resources are enough to handle these people.

4.2 Academic Performance of Hearing Impaired Learners

Hearing Impairments (HI) tend to interfere with pupils’ learning in a number of ways. For example, learners’ academic achievement may be hindered due to the fact that their ability to process information is interfered with and their interaction with other peers is also affected. They may either fear to interact with others or other peers may isolate them, which makes them uncomfortable in school society and hence they lose confidence. This will result into low academic scores in examinations, with drawal from school and other problems. It may also be true that if such learners are given an ideal environment to learn from and if teachers gave all the care required and their peers do not isolate them, then such pupils can perform better just like others.

In Kenya much effort has been devoted towards improving the education of Special Needs Learners (SNL) among which Hearing Impaired Learners (HIL) are found. In this study, the researcher examined the academic performance of HIL. In order to do this effectively, the researcher collected examination scores for a sample of 20 pupils, among whom 10 were HIL and 10 were normal. In so doing, the researcher wanted to compare

academic performance of the two groups and to do so, the researcher was interested in seeing whether there is a significant difference in scores of the two groups. The independent samples t-test was used to test the null hypothesis that; the mean scores of the two groups do not significantly differ. In the first place, academic scores of the two groups are presented in a descriptive way as per table 4.12.

Table 4.11: Description of Learners and Scores

Report

exam Scores

type of Learner	Mean	N	Std. Deviation
Normal Learner	61.1000	10	12.03190
Hearing impaired Learner	62.9000	10	12.17876
Total	62.0000	20	11.81881

The table shows that there were 20 pupils in the sample of which 10 were HIL and 10 were normal. The mean scores for HIL (63%) slightly exceeded that for normal learners (61%), with almost equal standard deviations (12).the class overall average was 62% with a standard deviation of 12. this means that HIL in this sample have the ability to perform well just like normal learners.

The above description, although shows a difference in the two mean scores, does not show whether the difference is statistically significant or not. To show this the researcher went ahead to test the null hypothesis mentioned above and the results of this test are indicated in table 4.12.

Table 4.12: Testing the Null Hypothesis, Using the Independent Samples T-Test

Independent Samples Test		
		exam Scores
		Equal variances assumed Equal variances not assumed
Levene's Test for Equality of Variances	F	.042
	Sig.	.840
t-test for Equality of Means	t	-.332
	df	18
	Sig. (2-tailed)	.743
	Mean Difference	-1.80000
	Std. Error Difference	5.41377
95% Confidence Interval of the Difference	Lower	-13.17391
	Upper	9.57391

Results in table 4.12 indicate that there is no significant difference in the mean scores of the two groups. This is indicated by an insignificant p-value of 0.743. This implies that the null hypothesis above is accepted hence rejecting the alternative that the mean scores of the two groups in question significantly differ.

CHAPTER FIVE

DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the discussion of the major findings of the study, the conclusions and recommendations. The findings are made on the specific objectives of the study while conclusions and recommendations are derived from the major findings

5.1 Discussion of major findings

5.1.1 Attitude of teachers towards the hearing impaired learners.

The study wanted to establish the attitude of teachers towards the hearing impaired learners in the division particularly when they have performed poorly in an assessment. Findings from the study revealed that the teachers respond in mainly three different ways. Some teachers give special care to these learners, other consider them while making the assessment test while some leave them to discover for themselves.

The study found out that more than fifty percent of the teachers in the division take the option of giving special attention. This implies that such an extra attention can help them improve on their performance since any impairment calls for special care and skills to get the best out of the person that possess the difficult. Giving these learners consideration while marking may not directly touch the learners and they may not gain from it in terms of learning though it may give them some motivation to learn. Leaving the learners to discover for themselves was the least considered by teachers because where as discovery is one of the ways of learning it is less effective on pupils that have special cases, such people need special caring and devotion on the part of the teacher thus the option of special caring as opted for by majority of the teachers can work better for the hearing impaired learners.

5.1.2: Academic performance of the hearing impaired learners.

From testing the null hypothesis stated the finding of the study indicates that HIL have the ability to perform well just like their normal colleagues. The hypothesis tested

showed no significant difference in the mean performance of the two groups implying that given equal opportunity the hearing impaired learners can perform like the normal learners

5.3 Conclusion

Basing on the findings of the study, it was concluded that the causes of hearing impairment in the division are many and varied and they can be attributed to both nature and nurture. Inborn traits, what happens in the environment and the way parents take care of these learners are what causes hearing impairment in the learners.

On the attitude of the teachers towards the performance of the hearing impaired learners the study concluded that most teachers in the division take appropriate actions when the learners have performed poorly, that is by giving them special attention while teaching them thus taking into consideration individual difference in the class room is what teachers in the division do to help out the hearing impaired.

On the performance level of the hearing impaired learners the study concluded that HI does not significantly affect learners' academic performance as per this particular study. The case of these results may be a unique one, since most people would expect the academic performance of HIL to be affected negatively, which means that people normally expect HIL to perform poorer as compared to normal learners especially in an inclusive setting.

5.4 Recommendation

Basing on the findings and conclusions of the study the following recommendations were made.

On the attitude of the teachers towards the hearing impaired learners, the study findings reflected that most teachers in the division consider the option of giving special attention

to such learners. The research encourages the teachers to continue with this undertaking and any other merciful action that can enable these learners to progress in academics.

On the performance of the hearing impaired it was established that there is no significant difference in performance implying that with equal opportunity the hearing impaired can perform to the equal of the normal. The researcher recommends that the hearing impaired learners be given the required materials and the necessary attention by the teachers as this will help to uplift them in academics and make them fill at home while at school.

REFERENCE

- Conroy S W and Derr K. E. (1971). Survey and analysis of the habilitation and rehabilitation status of the mentally retarded with associated handicapping conditions. Washington D.C. Dept of Health, Education and Welfare.
- Gordenson R.M. (1978) Disability and Rehabilitation Handbook. New York: McGraw Hill.
- Ndurumo M. M. (2002) Exceptional Children Development Consequences and Intervention. Nairobi Longman Limited.
- Ontiatio L.A. (2002) Teaching and Learning Strategies in an inclusive Setting. Distance Learning Module and Nairobi KISE & UNISE
- Hallahan D P and Kauffman J.M (1997), Exceptional Learners. Introduction to Special Education, Seventh Edition Boston Allyn and Bacon
- Ndurumo M (2002), Introduction to Education Psychology UNISE/KISE Nairobi
- Randiki F (2002). Historical Development of Special Needs Education UNISE/KISE Nairobi
- Ogonda G. (2002), Education of Children with Specific Learning Difficulties Module 6 Nairobi K.I.S.E
- ONG'RA L.K (2002) Managing Emotional and Behavior Difficulties in an Inclusive Setting Module 26 Nairobi Kenya

APPENDIX I
RESEARCH BUDGET

Traveling	10,000
Internet	3,000
Typing	3,000
Photocopy	1,500
Stationary	2,000
Data analysis	2,500
Research assistants	4,000
Total	26,000

APPENDIX II

QUESTIONNAIRE

Dear teachers, am carrying out a study on the academic performance of hearing impaired learners in this area. I request you to provide me with some information. Your information will be treated as confidential and highly appreciated.

Gender ☐ Male ☐ Female ☐

Age 20 – 29 ☐ 30-39 ☐ 40 and above ☐

Marital status ☐ Single ☐ Married ☐

Academic qualification Primary ☐ O Level ☐ A Level ☐

Other specify _____

Professional qualification P1 ☐ P2 ☐

Dip ☐ Degree ☐

Teaching experience 1 -5 years ☐ 6 – 10 years ☐

11 – 15 years ☐ 16 and above ☐

How do you handle learners with hearing Impairment?

Teach them with others ☐ Teach them separately ☐

I have no skills to handle them ☐

Learning Impaired Learners can perform equally well like normal learners.

Agree ☐ disagree ☐ not sure ☐

What do you do to enable them perform better?

Give special care to them ☐ leave them to discover ☐ consider them when marking ☐ others.....

Have you got any information about successful people who had hearing impairment

Yes ☐ No ☐

If yes what area were they successful in?

Academic achievement ☐ Vocational achievement ☐

Do these children have tools and materials to practice their skills if they have any?

Yes. ☐ No ☐

If yes who provides the tools, resources and materials?

Government ☐ Well wishers ☐ their Parents

APPENDIX IV
ACADEMIC PERFORMANCE DATA

C/N	Description of students	Percentage score
1	Hearing imposed	50
2	Normal learners	60
3	Hearing imposed	40
4	Normal learners	80
5	Hearing imposed	60
6	Hearing imposed	60
7	Normal learners	70
8	Normal learners	70
9	Normal learners	60
10	Normal learners	60
11	Normal learners	70
12	Hearing imposed	80
13	Hearing imposed	70
14	Hearing imposed	60
15	Normal learners	50
16	Normal learners	60
17	Hearing imposed	80
18	Hearing imposed	70
19	Hearing imposed	50
20	Normal learners	40

Source: primary data 2008

Mean score of Normal Hearing Impaired Learners

$$\frac{620}{10} = 62$$

Mean scores of Normal Learners

$$\frac{20}{1} = 20$$

APPENDIX IV
ACCEPTANCE LETTER

LUNG'ANYIRO PRIMARY SCHOOLE

P.O BOX 1
KUYONZO

10th May 2008

TO WHOM IT MAY CONCERN

Dear Sir / Madam,

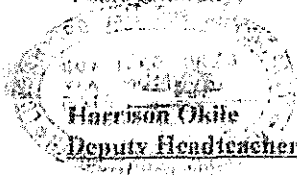
RE: INTRODUCTION LETTER FOR MR. OPARI HS ANTONY
REG. NO. BED/13622/61/DE

The above named is a teacher and he wishes to carry out a research in your school on Hearing Impairment learners and academic performance in school Matungu Division Mumias District Kenya.

The research is a requirement for the award of Bachelors degree in Education.

Any assistance accorded to him regarding research will be highly appreciated.

Yours faithfully,


Harrison Okile
Deputy Headteacher