

FACTORS AFFECTING PERFORMANCE IN MATHEMATICS

FOR THE HEARING IMPAIRED AT KCPE IN TAKABA

DIVISION, MANDERA WEST DISTRICT

KENYA

BY

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BED/10913/61/DF

RESEARCH REPORT SUBMITTED IN TO THE SCHOOL OF OPEN AND
DISTANCE LEARNING IN PARTIAL FULFILMENT FOR THE WARD OF
BACHELOR OF EDUCATION SPECIAL NEEDS OF
KAMPALA INTERNATIONAL UNIVERSITY

APRIL 2008

DECLARATION

I Abdow Abdigey Hussein declare that the material in this book has not been presented else where for any academic qualification.

SIGNED


.....

ABDOW ABDIGEY HUSSEIN

DATE:

1st may 2008
.....

APPROVAL

This research report is submitted for examination with my approval as a University Supervisor.

Signed


.....

MR. LAAKI SAMSON

Date

15/5/08
.....

DEDICATION

This book is dedicated to my beloved Wife and children who stood by me during all this period of study.

ACKNOWLEDGMENT

First of all I would like to thank my supervisor; Mr. Laaki Samson for the direction, cooperation and support he has given me during the research process to make this work to come to completion.

I highly acknowledge my family members especially my wife Abdia Ahamed Gedi and my children for being there for me throughout my studies and standing by me in all circumstances.

I also acknowledge my colleagues for their encouragement during my time of study.

Lastly to the respondents from Takaba primary school, Dandu primary school Gither primary school, Did Kuro primary school and Wangai Dahan primary school who returned the questionnaires, thanks very much for your cooperation.

TABLE OF CONTENTS

DECLARATION	I
APPROVAL	II
DEDICATION	III
ACKNOWLEDGEMENT	IV
TABLE OF CONTENTS	V
LIST OF TABLES.....	VII
ABSTRACT	VIII
CHAPTER ONE	1
1.1 BACKGROUND OF THE STUDY.....	1
1.2 STATEMENT OF THE PROBLEM.....	2
1.3 OBJECTIVES OF THE STUDY.....	2
1.4 RESEARCH QUESTIONS.....	3
1.5 SIGNIFICANCE OF THE STUDY.....	3
CHAPTER TWO	4
LITERATURE REVIEW.....	4
CHAPTER THREE	9
METHODOLOGY	9
3.1 RESEARCH DESIGN.....	9
3.2 STUDY POPULATION.....	9
3.3 SAMPLE FLAME WORK.....	9
3.4 METHOD OF DATA COLLECTION.....	10
3.5 DATA PROCESSING AND ANALYSIS.....	10

CHAPTER FOUR	11
PRESENTATION INTERPRETATION AND DISCUSSION OF THE FINDINGS.....	11
CHAPTER FIVE	18
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....	18
5.1 SUMMARY.....	18
5.2 CONCLUSION.....	19
5.3 RECOMMENDATION.....	20
REFERENCES	21
APPENDICES	
A-TRANSMITTAL LETTER.....	24
B- QUESTIONNAIRE.....	25

ABSTRACT

The purpose of this study was to investigate the factors affecting the performance in mathematics of the hearing impaired learners at KCPE in Takaba Division, Mandera District Kenya.

The specific objectives of the study were to investigate some factors responsible for the poor performance in mathematics of the hearing impaired learners.

The methods used for data collection were questionnaires to gather information on the attitudes of female students.

The findings there were some problems faced in learning mathematics by the hearing impaired learners.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

All Kenyan students take national examinations when they finish primary school (the Kenyan Certificate of Primary Education, KCPE) and secondary school (the Kenyan Certificate of Secondary Education, KCSE).

The national examinations are developed and administered by the Kenya National Examination Council. These examinations are not currently altered for Hearing impaired students, though this is being planned for the future. Hearing impaired pupils are now given an extra 30 minutes to finish their exams.

The majority of assessment focuses on the Kenya Certificate of Primary Education (KCPE) exam. Examinable subjects include English, Mathematics, Swahili, and Science. This examination occurs at the end of standard eight. Students must score a C- to pass the examination and most secondary schools accept students who have scored a C+ or higher. Many Hearing impaired students have great difficulty in passing the KCPE (Kochung, 2003)

In 2005, the Ministry of education called the performance of Hearing impaired schools "dismal." A 2004 report noted that deaf students perform less well in mathematics than the normal counter parts. It's upon such a background that the study will investigate some of the factors responsible for the performance in mathematics of the Hearing impaired students in the Kenyan certificate of primary education. . (Edwards Kochung, 2003)

1.2 Statement of the problem

Despite the efforts of educators and parents, the academic performance of children with hearing impairment in Mathematics frequently lags behind that of hearing peers (Albertini, 2002). Recognizing that such generalizations refer to hearing impaired pupils as a group, and that some hearing impaired children excel in academic settings, progress in improving educational outcomes has been disappointing across most academic content areas in Kenya and specifically in Mandera west District. It's upon such a problem that this study will be undertaken to find out the reasons why the problem is so and to get solutions to the problem

1.3 Objectives of the study

1.3.1 General objective

The general objective of the study was to investigate the factors affecting the performance in mathematics of the hearing impaired learners at KCPE in Takaba Division, Mandera District Kenya.

1.3.2 Specific objectives were to;

1. Determine if lack of school resources affects the performance in mathematics of the hearing impaired learners in Takaba division.
2. To determine if the funding for the hearing impaired learners affects performance in mathematics.
3. To determine if the quality of education affects performance in Mathematics of the hearing impaired learners in Takaba division.

1.4 Research questions

1. How does the lack of school resources affects the performance in mathematics of the hearing impaired learners in Takaba division?
2. How does the funding for the hearing impaired learners affects performance in mathematics?
3. How does the quality of education affects performance in math of the hearing impaired learners in Takaba division?

1.5 scope of the study

The study was conducted in Takaba Division found in the West District of Mandera found in Kenya. The study was limited to the objectives of the study. Any other aspect other than the one mentioned in the objectives will not be investigated because of time and money constraints.

1.6 Significance of the study

This study will benefit the following disciplines:

The ministry of education will be able to design policies that can help stake holders to come up with solutions to the problem at hand

The district supervisors will be able to monitor the performance of Hearing impaired students in comparison to the normal children and report to the authorities on what needs to be done

The parents and the community will be sensitized to advocate for the necessary equipment for their hearing impaired children from government to be in the schools where their children attend school.

The teachers will be able to know the methods of educating the children with Hearing impairment in math in order to ensure that they pass the exams

The research will help researchers and academicians to increase on the available literature for further studies

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

This chapter reviews literature as an account of the knowledge and ideas that have been established by accredited scholars and experts in the field of study. It is guided by the objectives of the study outlined in chapter one

2.1 Lack of School Resources

The Task Force on Special Needs Education (August 2003) concluded that schools with "learners with hearing impairments" needed the following additional resources: individual hearing aids and batteries, ear moulds, audiometers, speech training units, auditory training units, note-taking devices, a sign language curriculum and dictionaries. (Kochung, 2003)

It found that the government does not pay enough money to supply these resources to the schools that need them. Parents also cannot afford them. Furthermore, many schools are unable to service and maintain the special devices when they need repair. This leads to dependency on NGOs and donors. (Bodner-Johnson, 1986).

It also noted that many classrooms have poor lighting, which can be a problem for deaf learners who use Kenyan Sign Language to communicate.

Many schools also lack the following: Teacher aides; Nursery aides; House mothers/fathers; Sign language interpreters; Note takers;

Counselors; Social workers; Audio-Technicians; and Local Technicians. (Emmorey, 1998)

Learners with hearing impairments leaders in Kenya also say the lack of deaf teachers in deaf classrooms and sign language instructors for teachers are other major resources that are lacking.

2.2 Funding of Deaf Schools and Units

Most programmes in special needs education rely on donor funding, with only some support provided by the government.

The government pays for teachers' salaries, school supervision, examinations, curriculum development, some non-teaching staff salaries, learning materials, and students' tuition. Parents and the local community are supposed to provide physical facilities and equipment. This negatively affects special schools, which have far less students than "normal" schools. (Blackwell, 1978)

The government provides schools with approximately Kenya shillings 1,020/= per student (\$14.57) and Kenya shillings 3,020/- per special needs students (\$43.14). The extra Kenya shillings 2,000/- for special needs students money is meant to accommodate needed support services and learning materials. The government does provide some additional grants to special schools and units. (Edwards Kochung, 2003)

Many special schools provide boarding facilities for students who cannot easily travel every day. Since many parents cannot afford the fees, schools and individual parents often seek out the assistance of donors and well-wishers. Some parents are forced to take their deaf children out of school because of the expenses. (Edwards Kochung, 2003)

2.3 Access and Quality in Education

Access has been the mantra of mainstream education, but it is unclear that this access has been translated into quality education. Stinson and Antia (1999) pointed out that the diversity of settings and students involved in deaf education makes any simple understanding or solutions to the issues facing them unlikely. Clearly, however, simply placing deaf students in public schools does not ensure access to a quality education, regardless of the quality of the classroom for hearing students. Studies involving college-level classrooms have clearly indicated that even with support services such as interpreting or real-time text displays, deaf students are not on an even footing with hearing peers. Regardless of whether the ultimate cause of this discrepancy is a cumulative effect of language deficits (early and/or late), inadequate K-12 educational resources, or something specific to literacy skills, learners with hearing impairments are not gaining all that their hearing peers are gaining in the classroom.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter explains the methods that the researcher will use to select the geographical areas, from which research will be carried out and methods of selection of respondents. It also explains the methods that will be used to collect process and analyze data.

3.1 Research design

The design that was used consists of both quantitative and qualitative method. Field work had to be undertaken and this comprised of direct observations and questionnaires for the respondents.

3.2 Study population

The study will comprise of Teachers of learners with special needs in the division of Takaba, Madera District.

3.3 sample framework

3.3.1 Sample size

A total of one hundred teachers for the special needs education was conveniently selected to participate

3.3.2 Sample technique

Using a convenient sampling technique, a total of one hundred respondents was selected for this study.

3.3.3 Sample procedure

In carrying out research, the researcher got a release letter from the course administrators which he took to the schools under study. He then

was given permission by the authority to access information from the organization in which he will visit.

3.4 Methods for data collection

3.4.1 Instruments

- **Questionnaires**

These were used to collect information from some teachers since these respondents are literate and are able to understand the language being used.

- **Observation**

This were done to get a better understanding of the problem under study.

3.4.2 Sources of data

This study used both primary and secondary data.

Primary data was collected using questionnaires which was administered to the teachers who will participate in this study.

Secondary data was through Document analysis in the form of Reports, training manual, news papers, and journals for the period under study. They will be read and the required data collected from them.

3.5 Data processing and analysis

Qualitative data involved three sets of activities which include editing, coding and frequency tabulations. Editing was done by looking through each of the field responses from questionnaires ascertaining that every applicable question has an answer and all errors eliminated for the completeness, accuracy and uniformity.

The researcher then proceeded on to coding the various responses given to particular questions that lack coding frames, he then established how many times each alternative response category will be given an answer using tally marks which was later added up. Data was then presented in frequency tabulations rendering it ready for interpretation.

CHAPTER FOUR
PRESENTATION, INTERPRETATION AND DISCUSSION OF THE
FINDINGS

4.0 Introduction

This chapter is a presentation, interpretation and discussion of the field results. Results are presented in tables and in form of frequency counts and percentages.

4.1 Demographic Characteristics of Respondents

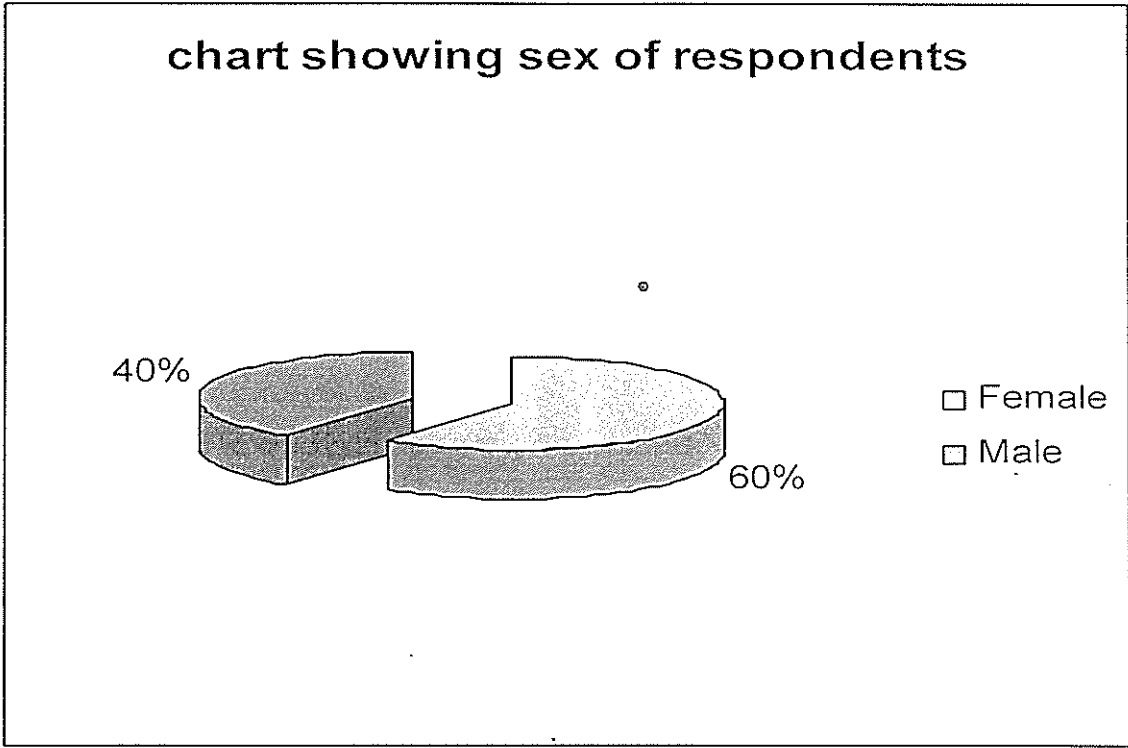
4.1.1 Sex of Respondents

During the survey 60 female respondents (60%) were given the instruments, while 40 male respondents (40%) were given the instruments. Because of the close links of the researcher with these Teachers, all of them helped him answer the questions asked in the interviews, which is 100% response. This is illustrated in the tables below:

Table I: Distribution of the Respondents by Sex

Sex	Respondents	Percentage
Female	60	60%
Male	40	40%
Total	100	100

Source: Fieldwork Mandera District (2008)



Source: Fieldwork Mandera District (2008)

4.3 Lack of School Resources

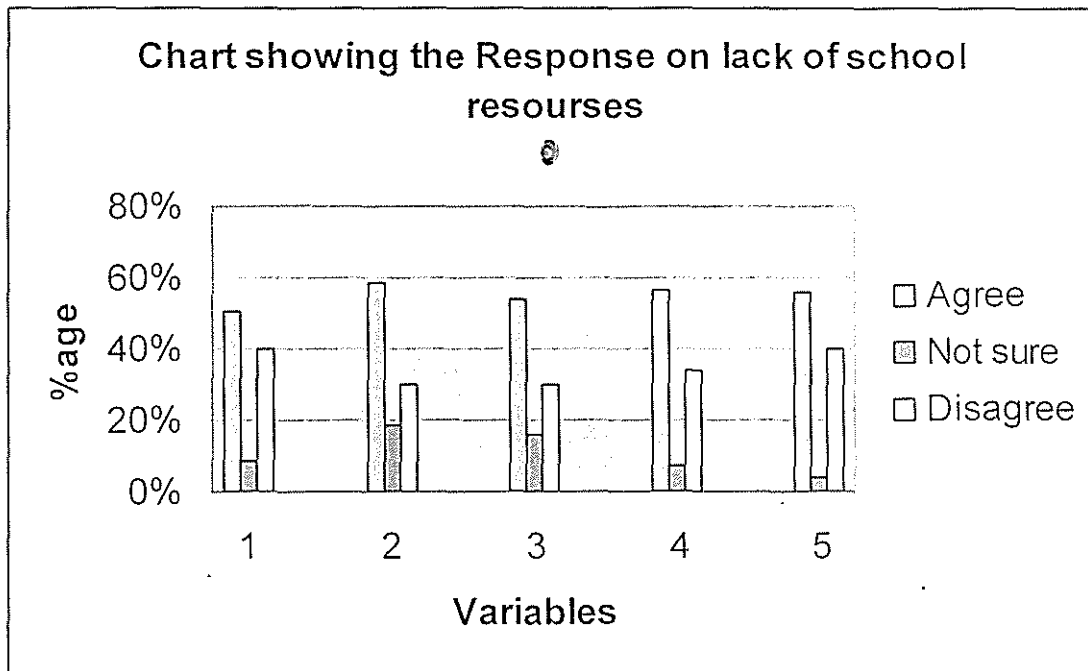
The results on the Lack of School Resources affecting the academic performance in mathematics of the hearing impaired pupils are summarized in the table below;

Table II: response on Lack of School Resources and the academic performance in mathematics of the hearing impaired pupils

	Item	Agree	Not sure	Disagree
1	We lack all kinds of learning aids for our hearing impaired pupils	51%	9%	40%
2	This school does not have the physical facilities were we can teach our hearing impaired pupils	59%	19%	30%
3	We do not have enough sign language interpreters in this school	54%	16%	30%
4	This school has no counselors to cater for our special needs pupils	57%	7%	34%
5	The teachers in this school who teachers our special needs pupils are not enough to handle them well.	56%	4%	40%

Source: Field survey 2008

Chart I: Response on Lack of School Resources and the academic performance in mathematics of the hearing impaired pupils



Source: Field survey 2008

Results from the table and chart I above indicate 59% of respondents are of the view that their school does not have the physical facilities were they can teach the hearing impaired pupils . On the other hand 57%of the respondents are of the view the school has no counselors to cater for the special needs pupils. More still, 56% of the respondents are of the view that the teachers in the school who teacher special needs pupils are not enough to handle them well.

4.3 Funding of Deaf Schools and Units

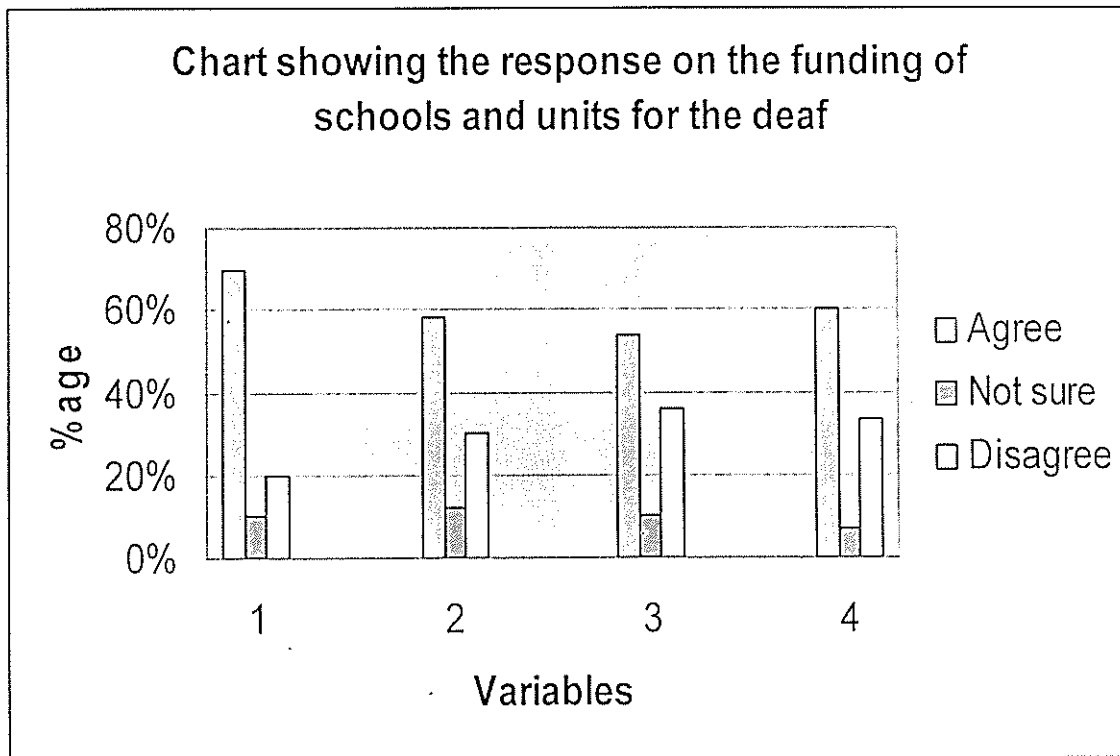
The results on the Funding of Deaf Schools and Units affecting the academic performance in mathematics of the hearing impaired pupils are summarized in the table below;

Table III: response on Funding of Deaf Schools and Units and the academic performance in mathematics of the hearing impaired pupils

	Items	Agree	Not sure	Disagree
1	The money which comes from government to educate the special needs is not enough	70%	10%	20%
2	The salaries for the teachers are very low and can not take care of their needs.	58%	12%	30%
3	There are no enough boarding facilities for the special needs pupils who can not travel back home.	54%	10%	36%
4	Most donor organizations that fund the special needs schools are not reliable and can pull out at any time they feel like.	60%	7%	33%

Source: Field survey 2008

Chart II: response on Funding of Deaf Schools and Units and the academic performance in mathematics of the hearing impaired pupils



Source: Field survey 2008

The results from table III and chart II show that 70% of the respondents are of the opinion that the money which comes from government to educate the special needs is not enough. 60% of the respondents are of the view that most donor organizations that fund the special needs schools are not reliable and can pull out at any time they feel like. Further more 58% of the respondents are of the view that the salaries for the teachers are very low and can not take care of their needs.

4.4 Access and Quality in Education

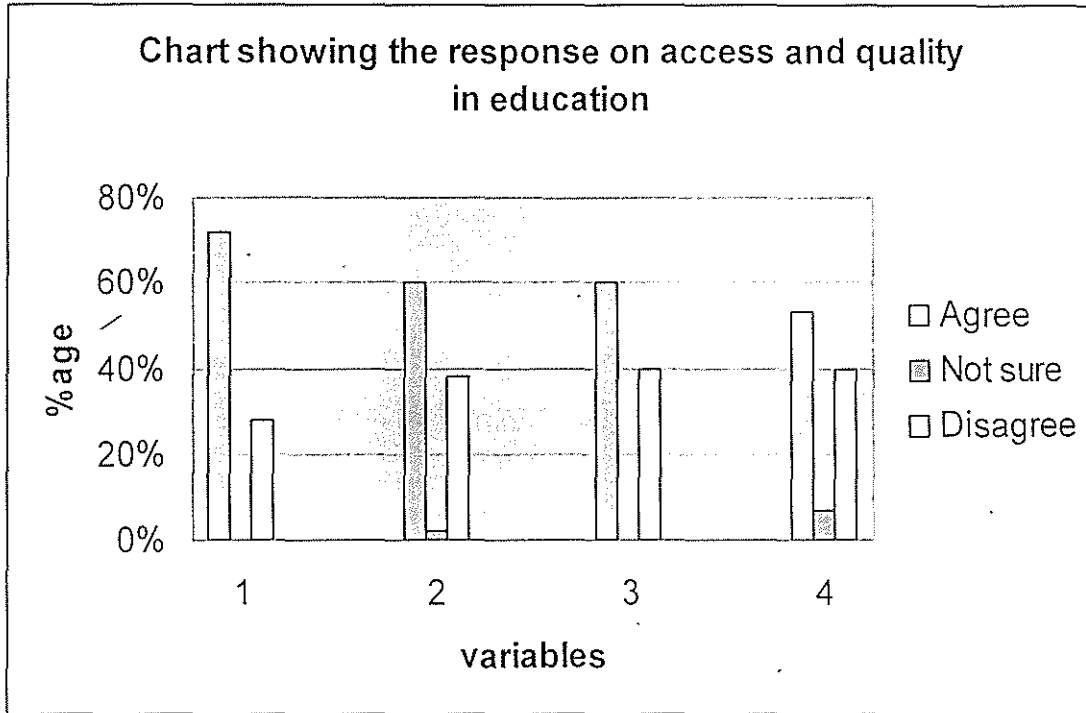
The results on the Access and Quality in Education affecting the academic performance in mathematics of the hearing impaired pupils are summarized in the table below;

Table III: response on Access and Quality in Education and the academic performance in mathematics of the hearing impaired pupils

	Items	Agree	Not sure	Disagree
1	The quality of education for the special needs pupils in this school is very low compared to other schools	72%	0%	28%
2	Government has not done enough to improve the quality of education for the hearing impaired children	60%	2%	38%
3	Most pupils drop out of school because of the poor quality of education provided here.	60%	0%	40%
4	The teachers for the hearing impaired children are not trained to handle the new technology of teaching the hearing impaired children	53%	7%	40%

Source: Field survey 2008

Chart III: response on Access and Quality in Education and the academic performance in mathematics of the hearing impaired pupils



Source: Field survey 2008

Results from table IV and chart III above show that 72% of the respondents agreed with the statement that the quality of education for the special needs pupils in this school is very low compared to other schools. Also 60% of the respondents agreed with the view that Government has not done enough to improve the quality of education for the hearing impaired children. More still another 60% were also of the view that most pupils drop out of school because of the poor quality of education provided here

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The study looked at the factors affecting performance in mathematics of the hearing impaired pupils. In an attempt to achieve the above, three objectives were developed. This chapter presents the summary, conclusions and recommendations of the findings

5.2 Summary of the major findings

5.2.1 Lack of School Resources

The first objective sought to investigate the Lack of School Resources affecting the academic performance in mathematics of the hearing impaired pupils

The findings revealed that 51% of the respondents agreed with the first statement, 59% of the respondents agreed with the second statement, 54% of the respondents agreed with the third statement, while 57% agreed with the fourth statement and 56% were in agreement with the last statement.

5.2.2 Funding of Deaf Schools and Units

The second objective sought to investigate Funding of Deaf Schools and Units affecting the academic performance in mathematics of the hearing impaired pupils

The findings revealed that 70% of the respondents agreed with the first statement, 60% of the respondents agreed with the second statement, and 58% of the respondents agreed with the third statement

5.2.3 Access and Quality in Education

The third objective sought to investigate the Access and Quality in Education affecting the academic performance in mathematics of the hearing impaired pupils

The findings revealed that 72% of the respondents agreed with the first statement, 60% of the respondents agreed with the second statement, and another 60% also agreed with the third statement and 56% of the respondents agreed with the fourth statement

5.3 Conclusions

5.3.1 Findings on Lack of School Resources affecting the academic performance in mathematics of the hearing impaired pupils

The findings revealed that the respondents were in agreement with the following statements: We lack all kinds of learning aids for our hearing impaired pupils; This school does not have the physical facilities we need to teach our hearing impaired pupils; We do not have enough sign

language interpreters in this school; This school has no counselors to cater for our special needs pupils; and The teachers in this school who teachers our special needs pupils are not enough to handle them well.

5.3.2 Findings on Funding of Deaf Schools and Units affecting the academic performance in mathematics of the hearing impaired pupils

The findings revealed that the respondents were in agreement with the following statements: The money which comes from government to educate the special needs is not enough; the salaries for the teachers are very low and can not take care of their needs; There are no enough boarding facilities for the special needs pupils who can not travel back home and Most donor organizations that fund the special needs schools are not reliable and can pull out at any time they feel like.

5.3.3 Findings on Access and Quality in Education affecting the academic performance in mathematics of the hearing impaired pupils

The findings revealed that the respondents were in agreement with the following statements: The quality of education for the special needs pupils in this school is very low compared to other schools; Government has not done enough to improve the quality of education for the hearing impaired children; Most pupils drop out of school because of the poor quality of education provided here and The teachers for the hearing

impaired children are not trained to handle the new technology of teaching the hearing impaired children.

5.4 Recommendations

In the education of learners with disabilities a law is needed to provide and enforce services for this population. Without laws and national mandates, and ways for ensuring that schools abide by these laws, many learners with disabilities are likely to be locked out of the educational arena. Development of a transition-based service provision model is vital especially for learners with hearing impairment.

Learners with disabilities need to be taught with attention to what, where, and how they are going to live and work as adults. This aspect is lacking in the education of students with disabilities in Kenya.

More teachers should be trained in the areas of special needs education so that they gain necessary knowledge and skills to handle and care for the children with physical disabilities.

5.4 Areas for further research

- Challenges of teachers for learners with hearing impairment

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TRANSMITTAL LETTER

TRANSMITTAL LETTER FOR THE HEAD TEACHER

November 04, 2007

To Whom It May Concern:

Dear Sir/Madam,

I am a graduating student at Kampala international university pursuing a bachelor in education. I here by write to request you to allow me carry out research in your institution. I am conducting a study on factors affecting the performance in mathematics of the hearing impaired learners at KCPE in Takaba Division, Mandera District Kenya.

I would be grateful for your permission and assistance in conducting the study.

Respectively yours,



ABDOW ABDIGEY HUSSEIN

Noted by:

Supervisor

.....
MR. LAAKI SAMSON

QUESTIONNAIRE FOR TEACHERS

Dear respondent,

I am a student of Kampala International University carrying out an academic research on the topic "factors affecting performance in mathematics of the hearing impaired pupils." You have been randomly selected to participate in the study and are therefore kindly requested to provide an appropriate answer by either ticking the best option or give explanation where applicable. The answers provided will only be used for academic purposes and will be treated with utmost confidentiality.

NB: do not write your name anywhere on this paper.

A) Personal Information

1. GENDER

Male

Female

2. AGE

14-18

19-25

25-30

30 and above

Evaluate the following statements using the following;

Not sure	Disagree	Agree
3	2	1

(a) Lack of School Resources

1	We lack all kinds of learning aids for our hearing impaired pupils	
2	This school does not have the physical facilities were we can teach our hearing impaired pupils	
3	We do not have enough sign language interpreters in this school	
4	This school has no counselors to cater for our special needs pupils	
5	The teachers in this school who teachers our special needs pupils are not enough to handle them well.	

(b) Funding of Deaf Schools and Units

1	The money which comes from government to educate the special needs is not enough	
2	The salaries for the teachers are very low and can not take care of their needs.	
3	There are no enough boarding facilities for the special needs pupils who can not travel back home.	
4	Most donor organizations that fund the special needs schools are not reliable and can pull out at any time they feel like.	

5	The funds meant to take care of the well fare of schools is diverted to other things	
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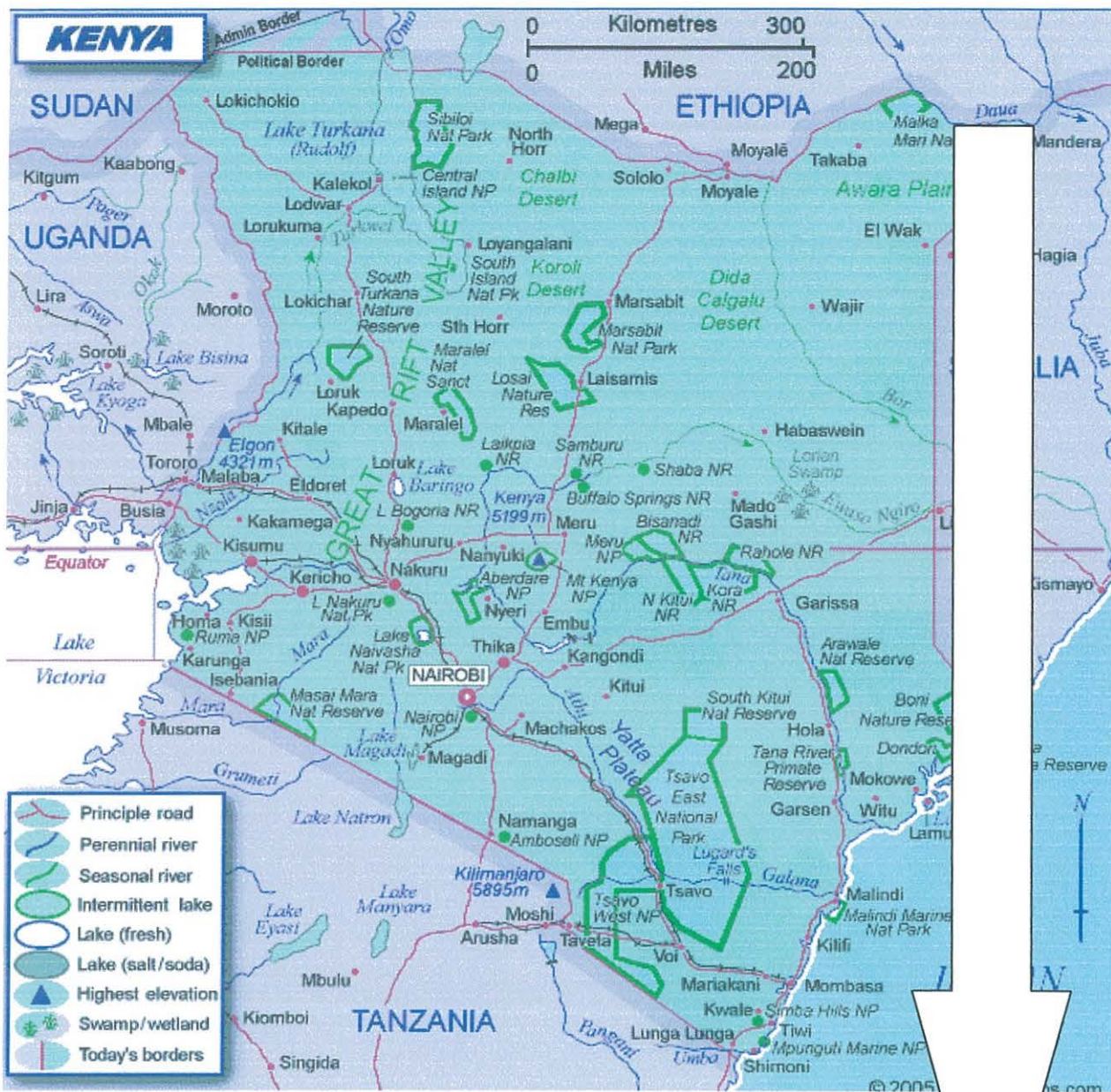
(c) Access and Quality in Education

1	The quality of education for the special needs pupils in this school is very low compared to other schools	
2	Government has not done enough to improve the quality of education for the hearing impaired children	
3	Most pupils drop out of school because of the poor quality of education provided here.	
4	The teachers for the hearing impaired children are not trained to handle the new technology of teaching the hearing impaired children	

THANK YOU

TIME FRAME OF THE STUDY

ACTIVITY	TIME IN MONTHS			
	1	2	3	4
Proposal writing				
Data collection				
Data analysis				
Submission				



MAP OF RESEARCH AREA (MANDERA WEST DISTRICT)