

**FACTORS AFFECTING PERFORMANCE OF MATHEMATICS AMONG  
THE VISUALLY IMPAIRED LEARNERS IN PRIMARY SCHOOLS IN  
KACHUMBALA SUB- COUNTY OF BUKEDEA DISTRICT.**

**BY**

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UNIVERSITY.**

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**DECLARATION**

, AARAKIT JESCA declare that this report is my original work and has never been submitted for a ward of a degree or diploma in this or any other University.

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**APPROVAL**

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**DEDICATION.**

This work is dedicated to my devoted brother **Emong Solomon** who sacrificed to help me spiritually, socially, and financially towards the completion of my course.

To my husband **Otunyang John** whose love, support and encouragement filled me with determination.

To my children **Chemeri Sarah, Apedun Betty, Aluka Lillian, Okello Samuel, Otunyang John, Among Fiona** and **Okotel Joseph** who really missed me during my study time. I, too, thank them for their prayers and support.

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### ABSTRACT.

The study investigated the factors affecting performance of Mathematics among the visually impaired learners in primary schools in Kachumbala Sub- County of Bukedea district.

A survey research design was used to achieve these objectives. A questionnaire and interview guide were developed and used to solicit responses from the respondents. Frequent counts and percentages were used to determine the factors affecting the performance of mathematics among the visually impaired learners in primary schools in Kachumbala sub-county of Bukedea district.

- 1) Inadequate funding of Education of learners with special needs had greatly affected performance of mathematics by the visually Impaired Learners.
- 2) There was a marked decline in performance of mathematics by the visually impaired learners.
- 3) Government was emphasizing the Education of people with disabilities among them the visually impaired learners.

It was therefore concluded that:

- 1) Factors affecting performance of mathematics among the visually impaired learners should be addressed in order to help them perform better in the subject.
- 2) It is also important that the spillover effect of these factors be controlled if performance in mathematics is to be any better.
- 3) It is equally important for government to put in place measures that would help the visually impaired learners to perform better in Mathematics.

On the basis of the above conclusion, it was recommended that:

- 1) There is need for the government to train and post qualified Teachers with a bias in special needs Education to schools to help handle pupils with disabilities and moreso the visually impaired learners.
- 2) There is need for the government to properly fund the Education of pupils with disabilities especially the visually impaired learners as a way of helping them fight poverty and stigmatization.

- 3) Policies to do with the disabled pupils and indeed those with visual impairment be implemented if performance in the school curriculum and moreso that of mathematics is to improve.

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## CHAPTER ONE

### 1.0 INTRODUCTION:

#### 1.1 Background.

Bukedea Sub-County is one of the countries that make up the district. It is one of the districts that make up the larger Teso sub-region. The inhabitants here depend on peasant Agriculture in addition to pastoralism. Teso sub-region used to be a food basket for Uganda but of late this is not the case as some of the districts live on food handouts from the central government. In terms of Education things are no better even though most of the areas have embraced both Universal primary and secondary Education

Therefore, Education is a human right and it is a vital instrument for achieving the goals of equity development and peace. None discriminatory Education benefits both girls and boys and thus ultimately contributes to more equal relationships between men and women Gou (2000). Hence the Education sector has four major sections of Enrolment, teaching staff, Education of persons with special needs and adult literacy.

Special needs learners are those with severe disabilities or other individual learning needs who have the intellectual capacity to meet all the curriculum and assessment needs and who require special arrangements to demonstrate their level of achievement UNEB (2017). In this category are the blind or the visually impaired who do not have the sight and use Braille.

#### 1.2 Statement of the Problem

The policy of the government of putting emphasis on the teaching of science subjects has been welcomed but a lot needs to be done in terms of training enough personnel and providing not only infrastructure but equipment such as laboratory chemicals, items and textbooks. The situation with visually impaired learners is even worse as infrastructure and equipment used by them are in short supply or non-existent. Unless government addresses the above bottlenecks, performance in Mathematics for the visual learners will not improve.

#### 1.3 Purpose

The purpose of study was to investigate the factors affecting the performance of mathematics among the visually impaired learners in Kachumbala sub-county of Bukedea district.

#### 1.4 Objectives

1. To establish the factors that affect performance of mathematics among the visually impaired in primary schools in Kachumbala sub-county of Bukedea district.
2. To determine the effects of these factors on performance of Mathematics among the visually impaired learners in primary schools in Kachumbala sub-county of Bukedea district.
3. To evaluate the measures that are being taken to improve the performance of Mathematics among the visually impaired learners in primary schools in Kachumbala sub-county of Bukedea district.

#### **.5 Research Questions**

1. What are the factors that affect the performance of mathematics among the visually impaired learners in primary schools in Kachumbala sub-county of Bukedea district?
2. What are the effects of these factors on the performance of mathematics among the visually impaired learners in primary schools in Kachumbala sub-county of Bukedea district?
3. What measures are being taken to improve performance of mathematics among the visually impaired learners in primary schools in Kachumbala sub-county of Bukedea district?

#### **.6 Scope:**

The study was carried out among the visually impaired learners in primary schools in Kachumbala sub-county of Bukedea district between January and October 2018.

#### **.7 Significance:**

1. The study would be instrumental in yielding policies that would be used in improving the learning environment for the learners with disabilities.
2. The study would sensitize the stakeholders to provide the much needed infrastructure and equipment needed by the learners with disabilities.
3. The study would be an eye open to the government to put in place strategies that would enable the visually impaired learners to perform well in mathematics.
4. The study would be an additional to the existing stock of knowledge.

## CHAPTER TWO

### REVIEW OF RELATED LECTURE

#### 2.0 Introduction

#### 2.1 Factors That Affect Performance of Mathematics

A number of factors are responsible for the dismal performance in Mathematics especially among the visually impaired learners. Saturday Vision (May 19, 2018) highlighted the plight of **Susan Nalukwago**, a senior four student at Iganga Secondary School who has visual complication. She uses a recorder during lesson to the help her revise by listening to it.

However, Daily Monitor (Thursday, February 8, 2018) observed that (UNEB) Uganda national examination board needs to grade special needs students differently. This was because the grades of special needs students had been affected by the way mathematics and entrepreneurship Examination were set. Blind students got a problem attempting some mathematics questions because there is no Braille for mathematics. The Braille they learn primary is only for word, making it difficult to interpret mathematical symbols. They also cannot draw pie charts or construct angles. In yet another edition of Saturday Monitor (January 30, 2016) it was reported that students who are visually impaired perform better than students with hearing impairment. Whether this situation is obtaining among the visually impaired learners in primary schools in Kachumbala Sub-County of Bukedea district is yet to be established. In the same paper, the out gone secretary of (UNEB) Uganda National Examination Board Mr. Mathew Bukenya noted that there was evidence that candidates received assistance mainly in science practical paper, theory and mathematics. He blamed it on poor teaching of the subjects and lack of enough teachers.

It is also important to note that bridge international academies were among the 1,308 private schools across the country that the ministry warned against opening for the new term, after they were found by the directorate of education standards not to meet the minimum standards. The schools were found to be hiring unqualified teachers, operating in makeshift structures, many operating without licenses, lacking pit latrines and failure to teach children according to the curriculum approval by the national curriculum development centre among

other things. Whether this scenario is the same in primary schools of Kachumbala Sub-County of Bukedea district is yet to be determined.

Therefore, New Vision (Thursday, February 1, 2018) observed that there was no cordial relationship, among the pupil's, teachers and schools. Most parents do not provide scholastic materials. However, the same the same paper observed that the current cost of education is one of the biggest expenses that most parents have to contend with and sometimes it is worse to learners with disabilities.

It is therefore not surprising that the minister for the presidency, **Esther Mbayo** has revealed that most pupils in Busoga region, particularly in village schools, reach primary seven without owning or having any knowledge on how to use a mathematics set. This explains why some times, our pupils do not perform well in mathematics at PLE. That is why the research decided to carry out the study to establish whether the same situation is prevalent with the visually impaired in primary schools in Kachumbala sub-county of Bukedea district. New Vision (Wednesday January 24, 2018). The same paper noted that if the school is not properly managed, it is hard to expect good results. Good performance starts with good management. Indeed teaching is not about delivering a lesson. Teachers need time to counsel the students, participate in co-curricular activities, help the slow learners and attend to student's individual challenges which ultimately affect to performance of learners.

However, Kiruhura leaders asked government to support education of (PWDS) people with disabilities. Pastor Francis Mugwanya said that children with disabilities make up one of the socially neglected groups in society and need special education in their mainstream schools so that they embrace inclusive education.

New vision (Wednesday, march 14, 2018) observed that an illustration of the inequitable access to service by persons with disabilities is amplified by disability specific barriers, such as inaccessible infrastructure, including building in these service delivery centres which is in contravention of the building control act 2013. Therefore, within the education sector, despite repeated calls of allocation 10% of the education budget to special needs, education as stipulated in persons with disability act 2006, an analysis by NUDIPU has revealed that the education sector has for instance allocated 0.1% funds to the special needs education since the financial year 2014/15. This financing is too meager to support effective and quality

education standards reaching all children with disabilities of school going age across the country.

This in essence impacts negatively on performance of respective subjects such as mathematics. The paper added that this has greatly affected the enrolment of person's with disability reducing from 222,390 in 2009 at the three levels of pre-primary, primary and secondary levels to 155,846 as at 2015 as opposed to the ever increasing overall enrolment from 9,649,236 to 10,025,448 in the same years.

Therefore, New vision (Monday, December 16, 2013) observed that despite government policy of promoting science subjects for economic transformation, the ministry of education is still short of 5,000 science teachers in primary and secondary schools. The issue of science teachers is almost bordering on crisis. This explains why primary and secondary schools are understaffed in science subject and this impact negatively on their performance.

However, Daily Monitor (Thursday, October 29, 2009) highlighted the fact that the great obstacle to obtaining good academic results in schools under universal primary education programme is lack of food for the children. If schools don't provide lunch, children will not be attentive, they will retard mentally and the result is poor performance at national examinations. This study is yet to find out whether the situation is the same with visually impaired learners in regard to performance of mathematics in primary schools in Kachumbala sub-county of Bukedea district.

New Vision (Thursday January ,24,2013) highlighted the fact that while the government policy of universal primary education clearly spells out the role of each stakeholder, research shows that poor supervision and parental apathy are the biggest drawback to the delivery of quality education especially up country. Most districts do not adequately facilitate the schools inspectors to do their job. This is the main cause of teacher absenteeism. Most upcountry parents have also reneged on their roles to provide scholastic materials and lunch for their children yet research shows a strong correlation between parental interest and involvement in education and their children's achievements levels.

Indeed, lack of adequate funding to special needs education deprives children with special needs educations of their right to education and consequently increasing their susceptibility to poverty. Saturday Vision (June 30, 2018). In the same context, Daily Nation(Thursday December 20, 2005) observed that visually impaired teachers in schools of the disabled in Nyanza Province of Kenya are up in arms over what they termed mistreatment by schools

heads. They also allege gross irregularities in the way schools are managed. They accused school heads of diverting donor funds to their personal use. This therefore has an effect not only on the teachers but the visually impaired learners as well. Besides, the schools had no functional timetables consequently no learning seems to take place.

However, New Vision (Monday July 9, 2018) reported that Balitwegomba home for the blind children still faces challenges like inadequate Braille machines. The school had 26 machines being used by 59 pupils. The school did not also have Slates, styluses and Braille paper for the beginning pupils in primary one to primary three. In addition, the same edition of the paper observed that most children are not going to school because the parents can't afford the fees. They take their children to UPE schools because they cannot afford money in private schools, and now that the government aided schools are also becoming expensive they have no other alternative.

New vision (Friday march 23, 2018) observed that don't blame teachers for poor UPE schools grades. The paper went on to outline other causes of poor performance of pupils not only in mathematics but other subjects as well. One such cause was the poor working conditions for teachers, stretching from accommodation to pay which is in most cases overdue. You cannot expect teachers to deliver in such poor conditions. They are human beings. The other cause was the jammed classes.

Teachers are overwhelmed by the big number and are unable to monitor pupils individually. This is even sad when it comes to the teaching of mathematics among the visually impaired learners. The next cause was the neglect of pupils by their parents. Some parents do not encourage their children to do better when they are at home. Everything is left to the teachers and they expect their children to perform better. It will not happen by magic, there is need for paired effort. It was reported also that limited up-to-date reading materials was scarce and this makes it harder for pupils to have a health competition. And lastly hunger and long distance especially in village schools. By the time pupils reach schools, they are already exhausted and some of them are on empty stomachs. How do you expect concentration and good performance from such pupils? The paper, however, concluded that if all these causes are not addressed the move will not yield a thing.



## 2.2 Effects of the Various Factors towards Performance of Mathematics.

Lack of adequate funding to special needs education deprives children with special needs of their right to education, and consequently increasing their susceptibility to poverty. Funding affects every fact of the curriculum and indeed gadgets that the visually impaired needs to assist them do mathematics. Consequently due to inadequate funding performance in mathematics declines. Saturday Vision (June 39, 2018).

The paper added that in most cases children with disabilities are neglected by the people so close to them, for example their siblings and even parents, yet normally they are supposed to share the pain and responsibilities of a child with disability. Whether this is the case with visually impaired learners in primary schools in Kachumbala sub-county of Bukedea district is yet to be established.

UNEB (2017) observed that special needs learners are those with severe disabilities or other individual learning needs who have the intellectual capacity to meet all the curriculum, and assessment needs and who require special arrangement. In this category are the blind who do not have the sight and use Braille. Then the low vision who have partial sight that do not enable him or her to read ordinary print with ease. The type of disability above is in itself a factor and an effect on the academic performance particularly mathematics.

Saturday Vision (May 19, 2018) highlighted the plight of **Susan Nalukwago** aged 18 who is a senior four student with visual complications. She can afford to attend class twice or thrice in a week at Iganga secondary school. A recorder is used during lesson for her to revise later by listening to it. This method can work with other subjects but not mathematics.

However, New Vision (Tuesday February 6, 2018) observed that bridge international academies were among the schools that were found to be hiring unqualified teachers, operating in makeshift structures, operating without licences, lacking pit latrines and failure to teach pupils according to the curriculum approval by the national curriculum development centre among other things. This situation is yet to be determined by this study among the visually impaired learners with regard to the teaching and performance in mathematics in primary schools in Kachumbala sub-county of Bukedea district.

Saturday Vision (January 30, 2016) noted that there is need for the ministry of education to go beyond the provision of the hardware and look for reasons why despite interventions performance in mathematics and sciences continue to be below the acceptable levels. However, it was, too observed that the visually impaired learners perform better than students with hearing impairment. The completely deaf do better in vocational subjects.

Therefore, New Vision (Wednesday, January 2, 2013) observed that because teachers are poorly paid, many opt to transact private businesses while giving little attention to class work, hence the poor performance of schools. Daily Nation (Tuesday, December 20, 2005) observed that massive corruption instituted by heads of schools for the disabled was threatening the education of the disabled children. In the same light Mr. Kyalimpa, the head of Balitwegomba home for the blind children in Jinja said that the unit still faces challenges like inadequate Braille machines. He said they had only 26 being used by 59 pupils. They also did not have slates, styluses and Braille paper for the beginning pupils in primary one to three. As if that was not enough, New Vision (Wednesday January 8, 2014) noted that apart from death, voluntary resignation remains the leading cause of teacher attrition in Uganda and sub-Saharan Africa according to a recent report by education for all (EFA). Among other reasons for attrition, the report cites family responsibilities, illness and alternative employment. Low pay, poor working and living conditions and low job satisfaction are the other factors cited. There about 234,000 teachers in the country of whom 150,000 are on the government payroll in primary and secondary schools. But every year thousands of graduate teachers quit the profession for other jobs meaning that the government has to recruit new teachers every year.

But this sometimes takes a long period of time due to budgetary constraints hence affecting the delivery of the curriculum at both secondary and primary levels.

### **2.3 Measures Being Taken To Improve Performance of Mathematics among the Visually Impaired Learners.**

New vision (Thursday, July 19, 2018) highlighted the fact that Oryem who is the headmistress/ Headteacher of Gulu primary schools is known in the region for the outstanding performance especially in academics and co-curricular activities. Oryem who has been in Gulu primary school for six years has a played a role in starting a section of the

school to teach pupils with special needs. Before then, the enrolment of blind pupils in the school was low but due to her effort, the number has shot up to 50. The blind pupils are in school campaigns, in addition to having joint lessons with their counterparts.

However, New Vision (Wednesday, July 18, 2018) observed that for over 15 years, wandera a special needs teacher at Busikho primary school in Masinya sub-county of Busia district, has spearheaded the education of persons with disabilities, aiding access to treatment and improvising support devices for them. Whether the same is happening in primary schools in Kachumbala sub-county of Bukedea district is yet to be determined.

New Vision (Monday July, 9 2018) reported that the Indian association of Uganda donated an assortment of items to blind pupils. They also donated a Braille machine that will go a long way in teaching of mathematics and other subjects. Therefore, the ministry of education and sports was advised to consider recruitment of more teachers in special needs schools. This will enable pupils with disabilities to acquire the necessary learning skills especially those of numeracy and literacy New Vision (Friday, April 27, 2012).

Daily Monitor (February 8, 2018) reported that according to data from UNEB, 31 blind students that sat for UCE examination last year, 82 other students had low vision and 61 students were deaf. There were 31 dyslexics students who lack the skill to read, spell and write. 79 physically handicapped students and another 73 students with other forms of disabilities.

The paper noted that UNEB had adequately prepared special needs students sit their examinations. some questions were modified, provided questions written in Braille form, provided special personnel for the handicapped and dyslexics and sign language interpreters for the deaf and all special needs student were allowed an extra 45 minutes.

However, New Vision (Thursday June 26, 2018) observed that the ministry of education and sports should focus on inclusive education for children with disabilities.

Inclusive education happens when children with or without disabilities participate and learn together in the same classes and in every aspect, this beats 'special education' where children with disabilities are isolated and confined to social cocoons that are hard to break, thereby increasing stigma and all the negative perception associated with them. They, therefore, find it hard to break into and fit in society. Whether this is the case with visually impaired pupils in primary schools in Kachumbala sub-county of Bukedea district is yet to be established.

Therefore, Daily Nation (Friday July 27, 2018) observed that a bishop has urge parents with disabled children to stop hiding them. Bishop Charles Kinyanjui of missionary church of Kenya said a number of laws have been passed to uplift the welfare of people living with disability. He urged parents of disabled children to take advantage of free education to school instead of hiding them because of physical and mental disabilities.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

The chapter presents the methodology of the study.

#### **3.1 Research Design.**

Survey reach design was used in the collection of data for the study. This was so because of the fairly big population of both teachers and pupils. This design was used to help save on time. The researcher employed random sampling techniques since the population under study had similar characteristics.

#### **3.2 Population:**

The population comprised 27 primary schools both UPE and private. The researchers concentrated on the day UPE primary schools which in addition offered inclusive education

#### **3.3 Sample:**

Due to lack of both adequate time and funds, the researcher used random sampling techniques to get a representative sample. Out of 27 schools 20 were purely UPE schools and seven were private owned. Five schools were therefore randomly selected from the 20 schools representing 20% of the population. A representation number of teachers, including administrators were included in study. This is because they had adequate information about the study.

#### **3.4 Instruments of the Study**

Questionnaire and interview guides were used to get information from teachers and school administrators and some of the selected pupils. This was because questionnaires are easy to construct and are equally convenient for the respondents to react to and so are the interview guides. Observation technique and documents were, too, used in this study.

#### **3.5 Procedure:**

The questionnaires were drawn up and pre-tested to establish their reliability and validity of the questions. The researcher then sought a letter of introduction from the university and

proceeded to administer the questionnaire himself and interview the respondents. Important documents such as examination results and progress reports were consulted.

### **3.6 Data Analysis:**

Data from the questionnaires was sorted after which it was analyzed using percentages. Responses from the interviews were used to support final results from questionnaires hence leading to the drawing of viable conclusions.

## CHAPTER FOUR

### ANALYSIS AND PRESENTATION OF RESULTS.

#### 4.0 Introduction

This chapter analyses and presents the results.

#### 4.1 Table one show the categories of respondents that took part in the study.

CATEGORY	FEMALE	MALE	FREQUENCY	PERCENTAGE
Blind pupils	10	10	20	40%
Teachers	10	10	20	40%
Administrators	05	05	10	20%
<b>Total</b>	25	25	50	100%

The above shows the different respondents that took part in the study. The visually impaired pupils comprised (10) girls and (10) boys drawn from upper primary that brought the percentage to 40%.

Teachers were both (10) representing the females and (10) representing the males. This yielded 40% of the population. On the other hand (05) female education officials and (05) males representing 20% of the population also took part in the study. There was gender balance between the different respondents and almost every segment of society was represented.

4.2 Table two shows factors affecting performance of mathematics among the visually impaired learners.

RESPONSES	FREQUENCY	PERCENTAGE
1	45	90%
2	45	90%
3	40	80%
4	40	80%
5	35	70%
6	30	60%

The above table shows that 45 respondents representing 90% of the study population agreed that indeed there were many factors affecting performance of mathematics among the visually impaired learners. They said that inadequate funding to this sector played a major role in affecting the teaching of mathematics among these learners. Another (45) respondents, representing 90% of the study population were in agreement that lack of enough trained teachers was a significant factor. Inadequate staffing in the subject had negative effects on the performance especially among the visually impaired learners.

However, (40) respondents representing 80% of the study population said that poor teaching of the subject led to poor performance. Another (40) respondents representing 80% of the population affirmed that inadequate items such as Braille machines used in the teaching and learning of the subject by the visually impaired learners did affect the results. In addition (35) respondents representing 70% of the study population agreed that good management of the school enable such learners to perform well in mathematics. (30) Respondents representing 60% of the population agreed that cordial relationships between teachers and parents enhanced good performance in mathematics. Therefore, factors affecting the performance of mathematics among the visually impaired learners were found to be:

1. Inadequate funding to the sector.
2. Lack of enough trained teachers to handle the visually impaired learners.
3. Poor teaching of the subject.
4. Lack of enough Braille machines.
5. Poor management of the said schools.



6. Poor relationship between parents of the said pupils and teachers.

Some of the school administrators and district education officials interviewed decried the inadequate education budget for pupils with disabilities. It was a drop in the ocean and as such could not enable the proper implementation of the curriculum for the disabled. They also noted that the visually impaired like any other disabled pupils were stigmatized and even housed in special schools.

**4.3 The table shows the effects of the various factors on the performance of mathematics among the visually impaired learners.**

RESPONSES	FREQUENCY	PERCENTAGES
1	45	90%
2	40	80%
3	30	60%
5	30	60%
5	25	50%
5	25	50%

The above table shows that (45) respondents representing 90% of the population said that due to a number of factors, there was a decline in the performance of mathematics among the blind learners. This was attributed partly to unqualified teachers who were hired to teach mathematics without following the national curriculum development centre syllabus. (40) Respondents representing 80% of the study population affirmed. However on the other hand poor pay for teachers and their conditions of service had devastating affects on the teaching of mathematics among the visually impaired. This was reflected in the absenteeism of teachers from school as they struggle to make ends meet. Remember, too, that teachers are also human beings. (30) Respondents representing 60% of the study population said so. Added to this was corruption particularly in special schools for the disabled where the administrators helped themselves to the funds meant to enhance the teaching of such subjects as mathematics. This was a cancer in many of the school including school under universal primary education. (30) Respondents, representing 60% of the population were in agreement. As such Braille machines that assisted in the teaching and learning of mathematics among the blind pupils could not be procured. This included other equipment such as styluses and slates. (25)

Respondents representing 50% of the population said so. Therefore this was outright deprivation of the rights of the visually impaired learners. (25) Respondents representing 50% of the population asserted.

Therefore, the effects of the varied factors on the performance of mathematics among the visually impaired were found to be:

1. Decline in performance of the subject.
2. Hiring of unqualified teachers to teach the subject.
3. Poor pay for teachers.
4. Corruption.
5. Inadequate Braille machines and other gadgets.
6. This was a deprivation of the right of the visually impaired.

School administrators and official interview emphasised the lack of trained teachers in their schools coupled with poor pay and working conditions, however, they down played the issue of corruption.

**4.4 The table shows measures being taken to improve the teaching of mathematics among the visually impaired learners.**

RESPONSES	FREQUENCY	PERCENTAGE
1	48	96%
2	45	90%
3	43	86%
4	40	80%
5	38	76%
5	35	70%

The table shows that (48) respondents representing 96% said that a lot of awareness has been created among the people with children who have visual impairment and other body deformities to take them then to school. In addition, a union for people living with disabilities was created to advocate for their rights. (NUDIPU) national union for people living with disabilities is a crusader for the rights of the disabled. After all disability is not inability.

It is important to note that the government of Uganda is putting emphasis on the education for people with disabilities whatever category they belong to through funding of the same although the funding is limited. This should enable the visually impaired and others to be able to perform well in mathematics and other subjects as a way of fighting poverty and stigmatization. (45) Respondents representing (90) of the population emphasised.

Mention should be made of the fact that government has created a department in (UNEB) Uganda national examination board to deal with the requirements of examinations for all the disabled. On the other hand, the government has created a whole institute to cater for the training of teachers for children living with disabilities. (UNISE) Uganda national institute of special education is charged with this responsibility. (43) Respondents representing 86% of the population said so.

Inclusive schools are now becoming the order of the day. Visually impaired pupils and others are now studying together with the normal children. This helps the normal children to appreciate the visually impaired and others and, too, share in their plight. It also helps to reduce stigmatization. (40) Respondents representing 80% of the study population agreed. To assist the visually impaired pupils perform better in mathematics, a number of non-government organisations and well wishers have from time to time been able to donate items such as Braille machines and other items to them. This has gone a long way to enhance competition between them and other children and to prove to the world that disabled do not need pity but assistance. (38) Respondents representing 76% of the population were in agreement. However, government policy to do with school buildings and government infrastructure have of late been developed with the disabled in mind. Schools buildings are indeed supposed to be user friendly to all categories of the disabled and so are government offices. This has eased the movement and time management of pupils and indeed people living with disabilities. (35) Respondents representing 70% of the population agreed.

Therefore, measures being taken to improve performance of mathematics among the visually impaired were:

1. Creation of awareness among the people with regard to children with visually impaired and others
2. Government emphasis of education for pupils/people with disabilities and funding of the same.

3. Creation of special department in UNEB to cater for the requirements of the disabled and creation of UNISE to train teachers for the disadvantage groups.
4. Encouragement and creation of inclusive schools.
5. Donations from well wishers and NGOS.
6. Government policy on buildings and infrastructure.

When school administrators and other were interviewed, they expressed the view that government should increase funding to special schools. Even in the inclusive schools, the items such as Braille that are badly needed to teach the visually impaired should be availed. More trained teachers to handle special cases were needed much as enhancement of their salaries was important.

## CHAPTER FIVE

### DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS.

#### 5.0 Introduction

The chapter presents the discussions conclusions and recommendations.

#### 5.1 Discussion:

The study investigated the factors affecting performance of mathematics among the visually impaired learners in primary schools in Kachumbala sub-county of Bukedea district. To facilitate the study, the following research questions were formulated.

1. What are the factors that affect the performance of mathematics among the visually impaired learners in primary schools in Kachumbala sub-county of Bukedea district?
2. What are the effects of these factors on the performance of, mathematics among the visually impaired learners in primary schools in Kachumbala sub-county of Bukedea district?
3. What measures are been taken to improve performance of mathematics among the visually impaired learners in primary schools in Kachumbala sub-county of Bukedea district?

#### 5.2 Research Question 1

What are the factors that affect the performance of mathematics among the visually impaired learners in primary schools in Kachumbala sub-county of Bukedea district?

When this question was tested, it enlisted varied responses as shown in table 4.2.

Forty-five respondents representing 90% of the study population agreed that indeed there were a variety of factors that impinged on the performance of mathematics among the visually impaired learners and that poor funding to this sector did undermine the performance of the subject. Without adequate funds, there is no way curriculum can be implemented effectively because textbooks and items such as Braille machines have to be purchased to support this process. This view is in support of Daily Nation (Tuesday, December 20, 2005) which observed that the head of Balitwegomba home for the blind children in Jinja still faces challenges like inadequate Braille machines, slates, styluses

and Braille paper. Indeed lack of these is a drawback to the expected good performance in mathematics by the visually impaired learners.

However, another forty-five respondents representing 90% of the study population were in agreement that lack of adequate trained teachers in these schools hampered the performance of mathematics. Mathematics is one of the key subjects in the school curriculum and over a number of years trained teachers in this area have not only been scarce in primary schools but also at secondary schools level thus hindering the teaching of science subjects that are supposed to transform this country to the next stage of development. This assertion is in support of New Vision (Wednesday January 2, 2013) that noted a part from death, voluntary resignation remains the leading cause of teachers attrition in Uganda and sub-Saharan African according to the recent report on education for all (EFA).

Hence forty respondents' representing 80% of the population agreed that poor teaching methodology led to poor performance in mathematics. This view is in support of Saturday Monitor (January, 30, 2016) which quoted Mr. Mathew Bukonya, the out gone UNEB secretary who said that there was evidence that candidates at 'O' level had received assistance mainly in science practical papers, theory and mathematics in the national examination and blamed it on the poor teaching of the subjects and lack of teachers. Without adequate staffing in schools especially in subjects such as mathematics, no miracle will be forthcoming. Yet another forty respondents representing 80% of the population were in agreement that lack of such items as Braille machines had an impact on the performance of mathematics indeed this view is in support of New Vision (Monday July 9, 2018) which observed that Balitwegomba home for the blind children still faces challenges like inadequate Braille machines. The school had 26 six Braille machines. The school had 26 six Braille machines against 59 pupils. This type of mismatch cannot up lift the performance of mathematics among the visually impaired learners.

Consequently thirty five respondents representing 70% of the population asserted that given the good management of schools by Headteachers, good performance in mathematics would be a reality but this seemed otherwise. This view is in support of New Vision (Wednesday January, 24, 2018) which observed that if a school is not well

managed, it is miraculous to expect good results. A good manager who plans for his school and invests in performance will be able to reap unlike the other.

Therefore thirty respondents representing 60% of the population noted that cordial relationships between teachers and parents indeed the different stakeholders was bound to enhance good performance in mathematics among the visually impaired learners. This view is supported by New Vision (Thursday February 1, 2018) which noted that there was no cordial relationship among the pupils' teachers, parents and the school. Most parents were reluctant to provide scholastic materials for their children. The result of this is that performance suffers.

### 5.3 Research Question 2

What are the effects of the varied factors on performance of mathematics among the visually impaired learners in primary schools in Kachumbala sub-county of Bukedea District?

When this question was tested, it produced many varied responses as shown in table 4.3. Forty-five respondents representing 90 % of the population said that among the numbers of effects, one of them was the decline in performance of mathematics among the visually impaired learners. This view is in support of Saturday Vision (June 30 2018) which observed that due to inadequate funding, performance of mathematics is bound to decline and so is the performance in other subject of the curriculum. That is why forty respondents representing 80% of the population said that the unqualified teachers hired to teach mathematics especially among the visually impaired contributed to poor performance in the subject just like the poor pay and conditions of service for the said teachers contributed immensely as this was reflected in absenteeism of teachers. Thirty respondents representing 60% of the population affirmed so. This assertion is in support of New Vision (Wednesday January 2, 2013) which highlighted that because teachers are poorly paid, many opt to transact private businesses while giving little attention to class work hence the poor performance of schools.

Another 30 respondents representing 60% asserted that corruption particularly in special schools for the disabled where the administrators help themselves to funds meant to enhance the teaching of such subjects as mathematics did undermine performance. Infact this behaviour was rife even in UPE schools. This view is support of Daily Nation (Tuesday, December 20, 2005) which highlighted that massive corruption instituted by heads of schools for the disabled was threatening their education.

That is why twenty-five respondents representing 50% of the population observed that such items like Braille machines and others that assist in teaching and learning of mathematics among the blind could not be procured. This is in support of New Vision (Wednesday January 8, 2014) which reported that Mr. Kyalimpa, the head of Balitwegomba home for the blind children in Jinja said the unit still faces challenges like inadequate Braille machines. Indeed this was outright deprivation of the rights of visually impaired pupils. Twenty-five respondents said so and this is in support of Saturday Vision (June 30, 2018) which stated that lack of adequate funding to special needs education deprives children with special needs of their rights to education and thus increases their susceptibility to poverty.

#### 5.4 Research Question 3

What are the measures that are being put in place to improve the performance of mathematics among the visually impaired learners?

When this question was tested the responses were equally many and varied as indicated in table 4.4 Chapter Four. Forty-eight respondents representing 96% of the population said that a lot of awareness had been created among the population with children who have visual impairment and other body deformities to take them to school. This view is in support of Daily Nation (Friday July 27, 2018) which observed that parents with disabled children should stop hiding them but instead take them to school and have them take advantage of free primary education.

However, forty-five respondents representing 90% of the population observed that government is currently putting a lot of emphasis on the education not only of the blind but all the disabled persons by having it funded as a way of fighting poverty and reduction of stigma. This is in support of Saturday vision (June 30 2018) which noted that lack of adequate funding to special needs education deprives children with special needs of their right to education and consequently increases susceptibility to poverty.

Therefore, the government has created a department in (UNEB) Uganda national examination board to deal with the requirements of the examinations of the blind and other disabled persons. In addition the government has created a whole institution to cater for the training of teachers for children with disabilities. UNISE ( Uganda national institute of education is charged with this responsibility. Forty-three respondents representing 86% of the population said so and this is in support of Daily Monitor ( February 8, 2018) which reported that UNEB



had adequately prepared special needs students to sit their examination by providing personnel for the handicapped and dyslexics and sign language interpreters, for the deaf.

However, forty respondents representing 80% of the population asserted that inclusive schools would be of much advantage to blind and indeed the disabled if they studied together. This would help each party to appreciate the other and to help dysmify the feeling that the blind and indeed the disabled cannot outperform them. This view is in support of New Vision (Thursday June 26, 2018) which observed that the ministry of education and sports should focus on inclusive education for children with disabilities. Inclusive education happens when children with or without disabilities participate and learn together in the same classes.

That is why thirty eight respondents representing 76%of the population said that donations and various items especially Braille machines and paper has gone a long way to boost the teaching of mathematics among the blind pupils. This assertion is in support of New Vision (Monday, July 9 2018) which highlighted that the Indian association of Uganda had donated a Braille machine to blind pupils of Balitwegomba children's home including other items.

It is true that the government on buildings and infrastructure in general has helped the blind pupils and the disabled persons to access them easily. The aim of the policy is to enable the disabled persons save on time than hitherto. Thirty-five respondents representing 70%of the population were in agreement. This view is in support of New Vision (Wednesday July 18, 2018) which stated that for over 15 years a Mr. wandera, a special needs teacher at Busikho primary school in Masinya sub-county of Busia district has spearheaded the education of persons with disabilities, aiding access to treatment and improving support devices for them.

## **.5 Conclusion:**

- 1) Factors affecting performance of mathematics among the visually impaired learners should be addressed in order to help them perform better in the subject.
- 2) It is also important that the effects of the above factors be controlled if performance is to be any better.
- 3) It is equally important for the government to put in place viable measures that would enable the visually impaired learners to perform better.

.6 On the basis of the findings of the study it is proper to make the following recommendations.

- 1) There is need for the government to train and post qualified teachers with a bias in special needs education to schools to help handle pupils with disabilities.
- 2) There is need for the government to properly fund the education of pupils with disabilities as a way of helping them to fight poverty and stigmatization.
- 3) Policies to do with the disabled pupils and indeed persons be implemented if performance in the school curriculum is to improve and benefit them.

## REFERENCES.

1. GOU (2000) women and men in Uganda. Facts and figures, Sectorial series UBOS Entebbe.
2. The Nation groups (Thursday February 8, 2018) The Daily Monitor Kampala.
3. The Nation group, (January 30, 2016) Saturday Monitor, Kampala.
4. The Nation group, (October Thursday 24, 2009) Daily Monitor Kampala.
5. The Nation group, (December Thursday 20, 2005) Daily Monitor, Nairobi.
6. The Nation group (February 8, 2018) Daily Monitor, Kampala.
7. The Nation group, (July Friday 27, 2018) Daily Nation, Nairobi.
8. The New Vision Group (May 19, 2018) Saturday vision, Kampala.
9. The New Vision Group (February Thursday 1, 2018) New Vision, Kampala.
10. The New Vision Group (January, Wednesday 24, 2018) New Vision, Kampala.
11. The New Vision Group (March Wednesday 14, 2018) New Vision, Kampala.
12. The New Vision Group (December Monday 16, 2013) New Vision, Kampala.
13. The New Vision Group (January Thursday 24, 2013) New Vision, Kampala.
14. The New Vision Group (June 30, 2018) Saturday vision, Kampala.
15. The New Vision Group (July Monday 9, 2018) New Vision, Kampala.
16. The New Vision Group (March Friday 23, 2018) New Vision, Kampala.
17. The New Vision Group (February Tuesday 6, 2018) New Vision, Kampala.
18. The New Vision Group (January Wednesday 18, 2018) New Vision, Kampala.
19. The New Vision Group (January Wednesday 8, 2014) New Vision, Kampala.
20. The New Vision Group (July Thursday 19, 2018) New Vision, Kampala.
21. The New Vision Group (July Wednesday 18, 2018) New Vision, Kampala.
22. The New Vision Group (April Friday 27, 2012) New Vision, Kampala.
23. The New Vision Group (July Friday 27, 2018) New Vision, Kampala

UNEB (2017) regulation on the conduct and supervision of UCE UACE Examination, Kampala.

## APPENDIX A

QUESTIONNAIRE TO INVESTIGATE FACTORS AFFECTING PERFORMANCE OF MATHEMATICS AMONG THE VISUALLY IMPAIRED LEARNERS IN PRIMARY SCHOOLS OF KACHUMBALA SUB-COUNTY OF BUKEDEA DISTRICT.

### **Introduction:**

Dear respondents, I am **Aarakit Jesca**, a student of Kampala international university, carrying out a study on the factors affecting performance of mathematics among the visually impaired learners in primary schools in Kachumbala sub-county of Bukedea district.

You are kindly requested to fill this questionnaire as earnestly and frankly as possible. The information provided shall be treated with confidence and shall be used strictly for the purpose of this study.

Thank you for your cooperation.

## BIO- DATA

1. Title .....
2. Gender .....
3. Profession .....
4. Experience .....

**TICK WHICHEVER IS APPLICABLE.**

### Factors Affecting Performance of Mathematics.

5. There are many factors that affect the performance of mathematics among the visually impaired.

YES

NO

6. Inadequate funding of the sector is one of the factors.

YES

NO

7. Inadequate trained teachers affect the teaching and learning of the mathematics among the learners who have visually impairment.

YES

NO

8. What of poor teaching methodology.

YES

NO

9. Lack of Braille machines and other items do affect the teaching of mathematics.

YES

NO

10. The other factor is good management of schools.

YES

NO

11. Good relationship between the stakeholders affects the teaching and learning of mathematics.

YES

NO

12. List some of the major factors that affect the teaching of mathematics among the visually impaired learners.

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

**EFFECTS OF VARIED FACTORS ON THE PERFORMANCE OF MATHEMATICS.**

13. There are many effects of the factors on the performance of mathematics.

YES

NO

14. Decline in performance is one of the effects.

YES

NO

15. Performance of mathematics is also affected by hiring of unqualified teachers.

YES

NO

16. Poor pay for teachers is yet another.

YES

NO

17. Corruption does affect the performance of mathematics among the visually impaired.

NO

YES

18. Inadequate teaching aids do affect the performance of mathematics.

YES

NO

19. There are many effects of a variety of factors on the performance of mathematics among the visually impaired learners list some of them.

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**MEASURES BEING TAKEN TO IMPROVE PERFORMANCE OF MATHEMATICS.**

20. Creation of awareness about the visually impaired learners to the population is one of them.

YES

NO

21. Government is putting emphasis on the education of the disabled learners.

YES

NO

22. Creation of special department to handle the education of disabled children is a measure.

YES

NO

23. Inclusive schooling is now being encouraged.

YES

NO

24. Donations from well-wishers and NGOS have gone a long way to assist in the education of the blind and other.

YES

NO

25. Policies to do with the disabled's education are now being implemented to improve the education of the disabled.

YES

NO

26. List some of the measures that you know of that are implemented to improve the education of the disabled.

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.....

Thank you for your cooperation in filling this questionnaire



**College of Education, Open and Distance e-Learning  
TORORO STUDY CENTRE**

Date: 12<sup>th</sup> May 2018

WHOM IT MAY CONCERN:

ARAVIT JESCA REG. NO. 1163-07174-08763:

Dear Sir/Madam,

**Research/Project:**

The above named is our student in the College of Open Education and Distance Learning (COEDL), pursuing a Bachelor of Education Primary in  
Engl. SST./S.N.E.

wishes to carry out research in your Organisation on:

Factors affecting Performance of Mathematics  
among the Visually Impaired Learners in Primary  
schools in Kachumbala sub-county of Bukedea District.

This research is a requirement for the Award of a Bachelors degree in Primary  
Education of Kampala International University.  
Your assistance accorded to him/her regarding research will be highly appreciated.

Yours Faithfully,

 Womuzumbu Moses

Branch Director

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