AN INVESTIGATION OF CHALLENGES FACING TEACHERS TEACHING LEARNERS WITH LEARNING DIFFICULTIES IN ARITHMETIC INTEGRATED IN REGULAR SCHOOLS IN MUTHAMBI DIVISION MERU SOUTH DISTRICT KENYA.

BY:

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BED/15111/62/DF

AUGUST 2008
DECLARATION

I Josephine k. Nyaga I do hereby declare that An investigation of the challenges faced by teachers teaching learners with learning difficulties in arithmetic, integrated in regular schools in Muthambi division Meru south district Kenya is entirely my own original work, except where acknowledged and that it has not been submitted before to any other university or institute of higher leaning for the award of a degree.

Signed........................................Date........................................

Supervisor (s)

This research report has been submitted for examination with candidate’s university supervisors.

Name..............................................................

Signed........................................Date........................................

Name..............................................................

Signed........................................Date........................................
ACKNOWLEDGEMENTS

The researcher wishes to acknowledge the contribution made by individuals and institutions that assisted in the production of this research study.

Specifically I wish to acknowledge the contribution made by my supervisor Tindi sejje for his tireless effort in giving me technical advice throughout the research. Equally I am grateful to all teachers in Muthambi zone for responding to questionnaires and helping me to collect the data.

Thanks to the funders of my research for typing my research.
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ABSTRACT

This is a comprehensive summary of the content of the study on challenges facing teaching learners with learning difficulties in arithmetic.

The researcher used qualitative and quantitative approaches to arrive to the challenges facing teachers. Survey design was used during the study and the target population comprised of two hundred mathematics teachers. The sample size was 10% of the target population, which was reached through convenience sampling. This was teachers Questionnaires comprising 15 questions in number were used for data collection. The questionnaires were distributed to the sample population and their responses were analyzed and presented on frequenced tables and percentages. According to the findings the most commonly used method of teaching was question and answers and most of learners with arithmetic difficulties are passive during mathematics lesson. The researcher noted that majority of teachers are not trained in special needs. Teachers should appreciate, understand, take learners as individuals and cater for their diverse needs.
CHAPTER 1
INTRODUCTION

1.0 OVERVIEW

The researcher in this chapter outlines the gaps that exists in the area of study and the present it overviews the background of the study, statement of the problem, purpose of the study, research objectives, scope, significance of the study, review.

1.1 BACKGROUND OF THE STUDY

Muthambi is one of the eleven zones in Meru south district. Academics standard are average with most of the schools scoring between 230-250 in Kenya Certificates of Primary Education. Most of the schools in the zone are well staffed with at least a teacher per class. Cases of understaffing are not a common phenomenon and even if there is any, it is one or two schools. Following the government policy of free primary education schools are adequately equipped with permanent water supply. This has contributed to smooth learning session because learners are in their classrooms throughout the learning sessions unlike before when there were interruptions since learners had to walk long distances looking for water and they are used to giving remedial teaching on Saturdays and over the holiday. However, in spite of all these efforts performance among learners with arithmetic difficulties remained low thus contributing to low mathematics mean —scores in Muthambi zone year in, year out. This has prompted the researcher to investigating challenges facing teachers teaching mathematics among learners with learning difficulties in mathematics.

1.2 STATEMENT OF THE PROBLEM

Muthambi as a zone has dedicated and devoted teachers who work tirelessly in collaboration with stakeholders and education officers. Teachers do work over the holidays and weekends in order to raise the academic standards in the zone. The AEO’s office in collaboration with the DEO’S office usually organizes seminars and workshops for teachers in order to equip them with knowledge in difficult
areas and on the way of improving teaching methods. Various publishers have also been holding seminars in mathematics since it is one of the poorly performed subjects. The zone also has a good number of teachers who are trained to be key resource teachers and every school has at least one. The district within which the zone is has an educational assessment and resource center located at the DEO’S office. EARC offers educational and assessment resource services to learners with special needs. Through this resource center, which is manned by a qualified officer a number of children with special needs have benefited. All of the above has been put into place in order to improve academic standards in the district and Muthambi as a zone. However learners with arithmetic difficulties continued to perform poorly in mathematics. As a result, the standards of mathematics have been below the average all through.

1.3 PURPOSE OF THE STUDY

The purpose of the study was to investigate the challenges encountered by teachers teaching learners with learning difficulties in arithmetic integrated in regular schools in Muthambi zone Meru/south district Kenya. The reasons for this study was to help both teachers and learners build a positive attitude towards arithmetic. The researcher was interested to help the teacher handle arithmetic with ease and less problems as he accords the child with learning difficulties utmost value and care. The researcher was also centered on helping the teacher understand some of the ways and methods of improving education for mentally retarded learners.

1.4 RESEARCH OBJECTIVE GENERAL

This study determined challenges encountered by teachers teaching learners with learning difficulties in arithmetic integrate in regular schools in Muthambi zone.

SPECIFIC

This study seeks to investigate the attitude of teachers towards learners with arithmetic difficulties. Identify the teaching methods used to teach mathematics
to learners with arithmetic’s difficulties. Establish the attitudes of learners with arithmetic difficulties towards mathematics. Investigate the teaching/learning resources used to teach mathematics to learners with arithmetic difficulties. To determine the number of teachers trained in special needs in the zone.

1.5 SCOPE

This study was carried out to investigate challenges faced by teachers teaching learners with learning difficulties in arithmetic integrated in regular schools Muthambi zone Meru/south district Kenya. Muthambi zone was the study area and its selection was due to accessibility. Its transport and communication is good and the population is dense. The research was carried out through survey design. Questionnaires comprising 15 questions in number were used to collect data. Moreover, the researcher was able to move from one place to another since she was familiar with the place. The researcher put across a few recommendations among them, the suitable methods for teaching learners with arithmetic difficulties to avoid them being passive during mathematics lesson. Also recommended special training for teachers handling the intellectually challenged learners as well as differentiated curriculum for successful inclusion of intellectually challenged learners. Awareness should also be created to parents, learners, community and teachers inorder to change the negative attitude towards learners with arithmetic difficulties or intellectual challenges.

1.6 SIGNIFICANCE

The researcher feels that the study will be of important to: The parents, teachers and learners as a positive altitude towards arithmetic and towards learners with arithmetic problem will be developed. The universities or institutes of higher learning who will acquire more knowledge from the study as they train teachers to handle children with arithmetic difficulties or mentally challenged learners professionally. The parents, teachers and the school administration will develop good relationship that leads to conducive learning/teaching environment. Good performance among learners increased self worth thus getting encouraged to continue with their studies unlike before when they used to develop due continued
failure. The government will be able to convince the curriculum developers to cater for learners with disabilities hence making it possible for teachers to handle effectively learners with arithmetic problems.

To other researchers who may wish to do further research on the same area of study. Above all the zone will realize and raise academic standards due to the support rendered to schools by the community.

1.7 REVIEW

This chapter outlined why the study was undertaken the critical background of the study where the data was collected and the population targeted it will help the teachers to handle learners with arithmetic difficulties. The next chapter reviews the related literature to the variables of the study.
CHAPTER 2

LITERATURE REVIEW.

2.0 OVERVIEW

This chapter describes the researchers ways of gathering information related to this study. The researcher got material from writers, lecturers psychologists and philosophers. The researcher also reviewed related literature under the following subheading: the frustration to both teachers and learners application of spatial ability, importance of language memory, poor performance and few programs, its impact and not forgetting the intervention measures.

2.1 FRUSTRATION

According to Gearheart (1972) it is frustrating and disheartening to teachers who handle learners with arithmetic difficulties. This is because learners performance is usually poor even after the teachers have covered a good amount of the syllabus. Piaget (1974) states that teachers who are frustrated by the failure of the students often search in desperation for the best method or the latest program that may make exaggerated claims of success.

According to schunk (1989) learners also get frustrated when they develop learned helplessness thus tending to devalue their effort and believe that no part of effort on their part will help them achieve. Weiten (1982) states that failure is a common cause of frustration. Teachers teaching learners with arithmetic difficulties get frustrated when they don’t achieve their desired goals. Piaget (1984) concurs with the above writers by stating that teachers seem to be perplexed by the divergent scores that pupils might receive on different tests in arithmetic.
2.2 SPATIAL ABILITY

According to learner (1985) children with arithmetic difficulties often confuse spatial relationship such as up-down, over-under, top-bottom, high-low, near-far and front-back. Chalfant & Scheffelin concur with the above writer by stating that spatial ability is an important aspect towards the development of arithmetic skills. Lack of these skills necessary for good performance are due to absence of spatial ability. Some of the learners challenged by arithmetic and who mostly confuse spatial relationship are said to be mentally retarded. Hallon and Kauffman (1991) said that the mentally retarded individuals were based on psychological and behavioral characters. This was from the research studies comparing groups of intellectually sub average children with non retarded children. Hence teachers require to use suitable methods to meet the standards of those learners with arithmetic difficulties.

2.3 LANGUAGE

Kelley (1928) Mitchell (1938) Barakat (1951) Kaliski (1962) states that verbal ability is an important aspect to achievement at all levels of education. According to Johnson (1967) language disorder among learners with specific learning difficulties make them to perform poorly in mathematics. Learner (1980) also concurs with the above writers by stating that learners who cannot read and understand can’t solve a mathematical statement. Teachers encounter barriers in communicating with learners who have serious language defeat or problems thus teaching becoming ineffective. Parents are partisans in providing useful information on historical background of the learner. They assist the teacher to understand the learners thus defining better ways of helping. According to Oganda (2002) some of the strategies which can be used to help mentally challenged learners are rehearsal and overlearning which help in keeping information in short term memory. Use of relevant games, poems and songs to create ‘fun’ in learning and maintain learner’s interest encourages language.
Language can also be improved through peer tutoring that is assigning one of the learners to assist the other is stuck using and allowing the learners to use concrete materials like counters, pictures as well as examples to clarify explanation to establish concepts particularly in mathematics.

2.4 MEMORY

According to Hallahan (1975) Kail (1980) Swanson (1987) good memory leads to good performance among learners at all levels. Learners with arithmetic difficulties have short-term memory thus performing poorly in mathematics. Ndurumo M.M (1983) concurs with the above writer by stating that memory is an important aspect of learning. Jean Piaget and other longnitive theorist recommends play as important in psychosocial development as well as cognitive development. It is a way of integrating thinking with actions and of consolidating and enlarging mental concepts and of cognitive skills. This is further projected towards reasoning and having good memory without which mathematics pauses a great problem to learners with arithmetic problem using and allowing the learners to use concrete materials like counters, pictures as well as examples to clarify explanation to establish concepts in mathematics can help improve the memory from poor to good.

2.5 POOR PERFOAMANCE

According to Hallahan &Lloyd (1983) Kauffman &Lope (1984) Short & weissberg Benchell (1989) thinking which is the ability to solve problems and to conceptualize is an important aspect towards good performance in mathematics. Learners with SLDs lack mental cognition, which is important aspect of thinking thus leading to poor performance. According to Kenya institute of special education bulleting disturbance of motor and visual perception abilities to have problems in counting objects in a series seeing objects in a series or group perceiving visually a geometrical shape as an entire visually number symbol for example teachers may confuse 6 &9 or 3 and letter E. As a result learners perform
poorly in mathematics. Ndumo (2002) concurs with the above writer by stating that perception is an important aspect for learning to take place. According to Baraket (1951) Gerstmann (1957) Kosk (1974) a development condition known as dycalcuria which an impairing acquisition of arithmetic skills as a result of neurological factors or hereditary make children to inherit an interior attitude for arithmetic skills. This results to learners with arithmetic difficulty performing poorly.

2.6 FEW PROGRAMMES

According to Gearheart there are few programs, which have been specifically designed for use with children who have SLDS. This is challenging to teachers who handle learners with arithmetic difficulties. Fernald (1943) states that historical attempts in the development of corrective approaches are few in mathematics. Due to this teachers don’t plan for remedial teaching since they have no guidance. Reisman (1972) concurs with the above writers by stating that there are few guides to follow in planning remedial work for leaners with arithmetic difficulties. As a result of these factors, regular teachers concentrate more on the average and above average thus jeopardizing the performance of learners with arithmetic problems. Some of these are intellectually challenged and the impact of teachers lacking proper planning, support equipment for those with special needs are negative. According to Ngugi (2002) most inclusive schools lacks these.

2.7 REVIEW

This chapter captured the related literature on different scholars who were interested on arithmetic challenged children and centered their views negatively like, language, few programs, memory and other main challenges for learners with arithmetic difficulties. The next chapter discusses the methodology that will be employed in the study.
CHAPTER 3

METHODOLOGY

3.0 OVERVIEW

This chapter comprises of methods and procedures used during the study. It also highlights the research design, sample, sampling procedures, instruments used for data collection and data analysis.

3.1 RESEARCH DESIGN

The researcher used survey design as a method of collecting information from the respondent. The reason behind this was that the research was carried out in a large population in order for the situation to be understood or learnt better. The researcher also used this method because she is well familiar to it as the research method get information intensively for example on population, attitude and behavior. When selecting samples of individual from known population and especially when one is using questionnaires: survey research design stands to be one of the most effective methods. It was easy for the researcher to reach a large population and even distant respondents. The use of questionnaires enabled the researcher to save time since it involved posting them to the respondents. However it proved abit cumbersome as efficiency was limited by some respondents who took long to fill them while others failed completely to return them. The environment was well known to the researcher hence conducting the research was eased by the fact that she got humble time distributing and carrying out the survey as she had build rapport with the respondents. Most of teachers were very supportive and even disclosed to the researcher some root problems they had identified with learners with arithmetic difficulties.
the lower areas to the forest of Mt. Kenya. The researcher used 10% of the target population in order to get information on challenges facing teachers, teaching learners with learning difficulties in arithmetic. The respondent involved were 30 in number. Teachers and learners with arithmetic problems were targeted. Most of the teachers in this school were p1 ones and a few who had undertaken diplomas and others undertaken degree courses though only a few in mathematics. The targeted and those selected were issued with a questionnaire, which the researcher collected later. The teachers proved experienced and very ready to help. As for the learners the researcher targeted those with arithmetic difficulties and those who do well in it. The researcher gave questionnaires to four in every school i.e. two-two and collected them later. The above groups play and interact in class thus it would auger well in finding out from them what the real problems are. The researcher also targeted the parents for the arithmetic challenged children. This was necessary as the background of these learners would also assist the researcher to collect accurate data. The parents were given questionnaires and the researcher collected them. Good relationship with the respondents was vital and the researcher had no difficulties in reporting with them since the targeted schools were well known by her. All the targeted schools had good feeder roads and near the major tarmac road. Gathering adequate information wasn't a norm as the schools were densely populated. All targeted schools were within the framework of muthambi zone, hence enabling the researcher to work harmoniously. The dense population in the regular schools in muthambi zone has been activated by the introduction of free primary education brought forth by the Kenya government in 2003. One category of learners come from rich family whereas others are from low social economic status. In rich family some children have ignorant mothers or working class and the negligence may lead to the child taking things for granted hence putting very little efforts in arithmetic which requires commitment. On the other hand children from poor families may develop mental disability or low reasoning due to malnutrition and diseases contracted by the mother.
3.2 SAMPLING PROCEDURE

The researcher used the simple random sampling procedure. This meant selecting at Random from a list of the selected schools in muthambi zone Meru south district and targeted schools, teachers and learners. The researcher aimed at selecting schools that she felt could provide adequate information in relation to the purpose of the study. Equal chance to all members of the population was provided for in the sample. The researcher respected every respondent who could freely answer the question in order to make the research successful. This was portrayed by choosing items on a chance basis, to avoid biases. The stratified random sampling techniques were used. This involved selecting a population of interest regular schools. Teachers and learners were given questionnaires to fill and then collected them later. This research method has minimal weakness and that prompted the researcher to use it. There are others like non-random sampling or convenience sampling procedures, which are selected on the basis of convenience of the researcher. The researcher centered decision may end up breaking the researcher ethics as one may be biased. In some instances a researcher may be compelled by circumstances to use unsuitable methods like non-random sampling procedure which is prone to prejudices of the researcher and findings might be contaminated. The researcher also overruled up the using judgmental and youth sampling which depends entirely on the judgmental discretion of researcher, and very prone to human errors and biases. Complex population, time and cash dictates what the researcher is to do, therefore the researcher chose simple random sampling as time and money was adequately budgeted. It was also one of the way for the researcher to avoid any sampling errors, which occurs due to small sampled population.

3.2 SAMPLE

Muthambi zone is among the most densely populated zones in Meru South District. It has 25 regular pry schools well distributed to cover a wide area from
3.3 INSTRUMENTS/TOOLS.

In this study, the researcher used questionnaire technique to collect data. The reason being that questionnaire cover a wide range and can be sent very far places. Respondents have liberty in expression and can reveal even the most inner secret, as they aren’t indetified. In addition the question may involve other respondent who weren’t targeted but with very useful information. The questionnaires comprised of questions that didn’t affect at the respondent personal life, thus confining the identity of the respondent and helping to give information required in full as they had nothing to fear. The questions were open, close-ended and related to the research objective. The researcher also used interview method where she was involved face to face to teachers and learners with arithmetic challenges. The questions were prepared in advance and placed in Muthambi pry school. The interview method catered for those who didn’t know what to write and have poor communication. This helped the researcher to gather crucial information.

3.4 PROCEDURE.

Before embarking on data collection, the researcher sought for consent from relevant headteachers through presentations of an introduction letter/ permit from Kampala international university. After the consent was granted the researcher went round the sampled schools distributing the questionnaires to the population. By so doing, the researcher had an opportunity to meet with her study subjects hence debriefing them on the study as well as guiding them on how to go about the questions. The questionnaires were left with the research subjects for two weeks after which the researcher went round once more collecting them.
3.5 DATA ANALYSIS.

The data from twenty questionnaires was arranged from the first to the last one. The researcher used frequency tables to present and analyze the data in form of percentage.

3.6 REVIEW

Chapter 3 covered the methodology. The questions were answered in good time. The sample size selected by the researcher was manageable. The next chapter is the finding of the study.
CHAPTER 4

DATA PRESENTATION AND ANALYSIS

4.0 OVERVIEW

In this chapter the researcher deals with presentation and analysis of the data collected from the respondent and challenges facing teachers teaching learners with arithmetic difficulties.

4.1 RESPONSE TO THE QUESTIONNAIRES.

Out of thirty questionnaires given to the regular teachers, twenty were received back.

4.2 DATA ANALYSIS.

The raw data collected from the questionnaires responses was analyzed and interpreted. The researcher chose to arrange the data according to the order of questions in the questionnaire.

4.3 ANALYSIS OF QUESTIONNAIRES FROM TEACHERS PART A
PRELIMINARY QUESTIONS.

4.4 TEACHERS ATTITUDE TOWARDS LEARNERS WITH ARITHMETIC DIFFICULTIES.

<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>FREQUENCY</th>
<th>PERCENTAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>17</td>
<td>85</td>
</tr>
<tr>
<td>NO</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>
Out of 20 respondents who responded to the question regarding attitude, 17 teachers. Eighty five (85%) of the respondent enjoyed teaching mathematics indicating that they have positive attitude while 3 teachers that is fifteen percent (15%) didn’t enjoy teaching mathematics an indication that they have negative attitude. The above information indicate that majority of mathematics teachers have positive attitude towards learners with arithmetic difficulties.

### 4.5 REMEDIAL WORK.

<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td>NO</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Seventy five percent (75%) of the respondents gave remedial teaching to their underachievers in mathematics while twenty five percent (25%) of the respondents didn’t give remedial teaching in mathematics. The above information shows that majority of tenders do give remedial teaching for under-achievers in mathematics.

### 4.6 MODE OF GIVING REMEDIAL TEACHING.

<table>
<thead>
<tr>
<th>MODE</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ONCE</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>TWICE</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>DAILY</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>NONE</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Out of twenty (20) respondents one teacher did remedial teaching once a week while six (6) of the teachers did twice a week. Eight teachers gave it on daily
basis while five (5) teachers didn’t give remedial at all. The information in the table 6 shows that most of the teachers do remedial teaching on daily basis.

PART B

4.7 QUESTION 1: TEACHING METHODS

This question required the respondents to show the teaching method that they commonly use.

<table>
<thead>
<tr>
<th>METHOD</th>
<th>FREQUENCY</th>
<th>PERCENTAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUESTION &amp; ANSWER</td>
<td>11</td>
<td>55</td>
</tr>
<tr>
<td>DISCUSSION</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>PEER TUTORING</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>LECTURE METHOD</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>OBSERVATION</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Fifty five percent (55%) of the respondents who respond to the question regarding methods of teaching used questions and answer while twenty five percent (25%) used discussion. Ten percent (10%) of respondents used peer tutoring while five percent (5%) used lecture and another five percent (5%) used observation. The above information indicates that majority of the teachers used questions and answer as a method of teaching mathematics lecture and observation are the least used methods of teaching.

4.8 LEARNERS ABILITY

<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELOW AVERAGE</td>
<td>14</td>
<td>70</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>ABOVE AVERAGE</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>
According to the above table seventy percent (70%) of learners with arithmetic difficulties were academically below the average while thirty percent (30%) of them are just average, none of these learners were above average. The information in the above presentation indicate that most of learners with arithmetic difficulties are usually below the average.

4.9 MEMORY AMONG LEARNERS

<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>17</td>
<td>85</td>
</tr>
<tr>
<td>YES</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Out of twenty (20) responses who responded to the question regarding learners being able to remember what was taught in the previous lesson, seventeen (17) respondents pointed out that their learners with arithmetic difficulties don’t remembers what was taught in the previous lesson. Three (3) respondents pointed out that their learners do remember lessons taught previously. According the above information majority of learners with arithmetic difficulties have poor memory.

4.10 LEARNERS ATTITUDE

<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>FREQUENCY</th>
<th>PERCENTAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>PASSIVE</td>
<td>17</td>
<td>85</td>
</tr>
<tr>
<td>ACTIVE</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

According to table presented above, eight five percent (85%) of the respondents indicates that learners with arithmetic difficulties are passive while fifteen percent (15) of the respondents said that these learners are active. The above information
shows that majority of learners with arithmetic difficulties are passive during mathematics lessons, thus indicating that they are negative towards mathematics.

4.11 COMPLETION OF HOMEWORK.

<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>18</td>
<td>90</td>
</tr>
<tr>
<td>YES</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Out of twenty (20) respondents, ninety percent (90%) of them showed that learners with arithmetic difficulties didn’t complete their homework while ten (10%) of these learners completed their homework. The information above indicate that majority learners with arithmetic difficulties don’t complete their homework in time always. This shows negative attitude among learners towards mathematics.

4.12 OBSERVABLE BEHAVIOUR

<table>
<thead>
<tr>
<th>BEHAVIOUR</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PASSIVE</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>RESTLESSNESS</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>NAIL BITING</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>ATTENTIVE</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>OUT OF SENT</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

The above table shows that forty percent (40%) of the respondents indicated that their learners are passive, twenty percent (20%) of the respondents indicated that learners with arithmetic difficulties are restless, fifteen percent (15%) of them said that their learners exhibited nail biting and attention respectively, while ten percent (10%) of them pointed out that their learners are out of seat. According to
respondents in the above table, most learners with arithmetic difficulties are passive in class during mathematics lessons.

4.13 TEACHING RESOURCES

<table>
<thead>
<tr>
<th>RESOURCES</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEARNERS TEXTBOOKS</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>CHALK BOARD</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>VISUAL DIAGRAMS</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>CONCRETE OBJECTS</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Out of twenty (20) respondents who responded to the question regarding teaching resources used, forty percent (40%) of them used learners textbooks, thirty percent (30%) used chalkboard twenty percent (20%) used visual diagrams while ten percent (10%) of the respondents used concrete objects. The above information indicates that majority of teachers use learners textbooks as a teaching aid to teach mathematics.

4.14 COMMONLY USED TEACHING AIDS.

<table>
<thead>
<tr>
<th>RESOURCE</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>13</td>
<td>55</td>
</tr>
<tr>
<td>YES</td>
<td>7</td>
<td>45</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Out of twenty (20) respondents, sixty five (65%) of them pointed out that they used learners textbooks and chalkboard as teaching aids while thirty five percent (35%) of them used other types of teaching aids. The above information indicates that the most commonly used teaching aids are learners textbooks and chalkboard.
4.15: EFFECTIVE RESOURCES

<table>
<thead>
<tr>
<th>RESOURCE</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONCRETE</td>
<td>11</td>
<td>55</td>
</tr>
<tr>
<td>VISUAL DIAGRAMS</td>
<td>09</td>
<td>45</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

According to the information given in the above table, fifty five percent (55%) of the respondents used Concrete objects while forty five percent (45%) used visual diagrams. The information in the above table indicates that the most effective teaching aid is concrete objects.

4.15 TEACHERS TRAINED IN SNE

<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>18</td>
<td>90</td>
</tr>
<tr>
<td>YES</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Out of twenty (20) respondents ninety percent (90%) are not trained in SNE while only percent (10%) of teachers are trained in SNE. The above information indicates that majority of teachers are not trained in SNE, Hence The government needs to train more teachers to handle these learners especially the mentally challenged.

4.16 LEVEL OF TRAINED

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>NONE</td>
<td>18</td>
<td>90</td>
</tr>
<tr>
<td>DIPLOMA</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>DEGREE</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CERTIFICATE</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>
Ninety percent (90%) of the respondents had not undergone any training in SNE while ten percent (10%) of the respondents had a diploma in SNE. The above presentation of data shows that majority of teachers are not trained in SNE. The highest level of training that teachers have undergone is a diploma.

4.17 TEACHERS EXPERIENCE

<table>
<thead>
<tr>
<th>PERIOD</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-10 YEARS</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>1-5 YEARS</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>11-15 YEARS</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>16-20 YEARS</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>21 AND ABOVE YEARS</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Thirty percent (30%) of the respondents indicated that they had been teaching math's for a period of six to ten (6-10) years while twenty five percent (25%) of them had an experience of one to five (1-5) years and sixteen to twenty (16-20) years respectively. Ten percent (10%) of respondents had an experience of eleven to fifteen (11-15) years same case with those who had taught for twenty-one (21) years and above. This information indicate that majority of mathematics teachers have taught for a period of six to ten (6-10) years.

4.18 DISCUSSION OF LEARNERS PERFORMANCE WITH PARENTS

<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TERMELY</td>
<td>12</td>
<td>60%</td>
</tr>
<tr>
<td>NONE</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>MONTHLY</td>
<td>6</td>
<td>30%</td>
</tr>
<tr>
<td>WEEKLY</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>
From the above table out twenty (20) respondents said that they meet once per term to discuss the performance of learners. This is represented by sixty percent (60%) of the respondents. Two (2) out of twenty (20) said that they don’t meet, representing ten (10) percent. Six (6) out of twenty (20) said that they meet parents once per month. This is shown by thirty (30) percent. None of the respondents meet weekly to discuss the performance. From the responses indicating that teacher has negative altitudes towards learners with arithmetic problems and feel that the learners can’t perform better.

4.20 CHALLENGES FACED AS A RESULT OF INTRODUCING SPECIAL PROGRAMMES FOR THE ARITHMETIC CHALLENGED LEARNERS.

The question required the respondents to highlight challenges faced in special programs for arithmetic challenged learners.

These challenges were:
• In adequate teaching and learning resources
• Negative attitudes by teachers and parents towards the learners.
• Poor syllabus coverage since it is too wide and demanding.
• Negative altitude by learners who have arithmetic difficulties
• Lack of special trained teachers.
• Low mean score which demoralized teachers and learners.

The challenge cited by most respondents is negative altitude by teachers and inadequate teaching and learning resources. Quite a number of respondents also highlighted by low outcome, which demoralized teachers and learners. The large enrolment after implementation of free primary education resulted to imbalances of teachers thus poor teacher/pupil ratio.

From the above challenges, the researcher is bound to conclude that there is urgent used to address the challenges to make mathematics a subject of interest and acceptable by all learners.
Chapter four dealt with the answers of the research, chapter five deals with summary, discussions, conclusion and recommendations of the main findings of the study.
CHAPTER 5

SUMMARY, DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS.

5.1 OVERVIEW

This chapter deals with summary, discussions, conclusions and recommendations of the main findings. The resolutions are based on the main related writers objectives and research questions.

5.2 DISCUSSION

One of the findings as seen in table 1 is that a number of teachers have negative altitude towards learners with arithmetic difficulties. This was arrived to by the fact that out of twenty (20) respondents fifteen percent (15%) of them pointed out that they didn’t enjoy teaching mathematics. This was supported by Kauffman J. M (1988) when he stated that: It is frustrating and disheartening to teachers who handle learners with arithmetic difficulties. When their performance in mathematics is poor even after teachers have covered the syllabus. This makes teachers to develop negative altitude. The findings on table two (2) indicated that twenty five percent (25%) of teachers didn’t give remedial teaching in mathematics for their under-achievers. This was supported by Fernald (1983) when he stated that teachers don’t plan for remedial teaching since they have no guidance. The finding on table six (6) illustrated that fifteen percent (15%) of learners with arithmetic difficulties do not have good memory to enable them remember what was taught previously. This was supported by Ndurumo M.M (1993) who stated that memory is an important aspect of learning. According to the finding on table five (5) majority of learners with arithmetic difficulties are below average score. This was supported by Hallahan & Kauffman (1984) who stated that thinking which is the ability to solve problems and to conceptualize lacks in learners with arithmetic difficulties thus performing poorly.
5.3 CONCLUSION

According to the research findings and analysis of the data, the researcher found that eighty five percent (85%) of teachers enjoyed teaching mathematics an indication that they had positive attitude towards learners with arithmetic difficulties. The remaining percentage pointed out that they did not enjoy teaching mathematics. Mathematics teachers should be given incentives in order to foster positive attitude towards learners. According to table seven (7) eighty five percent (85%) learners with arithmetic difficulties were passive during mathematics lesson thus indicating that majority of learners had negative attitude towards mathematics. Teaching mathematics should be a fun so as to create positive attitude among learners with arithmetic difficulties.

The researcher also noted that seventy percent (70%) of the teachers gave remedial teaching in mathematics for they’re under achievers. Seminars and workshops and special mathematics programs should be organized and held regularly so as to sensitize them on the need of giving remedial teaching for the under-achievers. Sixty five percent (65%) of the teachers pointed out that they used a variety of teaching aids during mathematics lesson. However fifty five percent (55%) of them used question and answers methods to teach mathematics. Further fifty-five (55%) commonly used learners text books as the only teaching aid during mathematics lesson. Teachers to be sensitized on the need to use child-centered approaches and accompany learners, text books with a variety of teaching aids to make the lesson lively and enjoyable. It was also noted with a lot of concern that ten percent (10%) of the respondents were trained in SNE with highest level being a diploma. This has contributed to an increase of learners with learning difficulties in muthambi. The government should train more teachers in SNE.
5.4 RECOMMENDATIONS

The researcher wishes to put across some recommendations which will assist in the effective teaching of the arithmetic challenged learners. These are based on objectives and the research questions.

- The ministry of education through AEO’S office should organize for seminars and workshops regularly to address mathematics issues.
- Teachers should be sensitized on the need of understanding and appreciating learners with arithmetic difficulties.
- Teachers should make teaching of mathematics a fun so that learners with arithmetic difficulties can develop positive attitude towards mathematics.
- The government through the ministry of education should provide schools with teaching /learning resources which can be used to assist learners with arithmetic difficulties.
- Teachers who teach mathematics should be sensitized on the need of using child-centered approaches.
- The school administration to offer incentives to mathematics teachers so as to boost their morale.
- The government through the ministry of education should train more teachers in S.N.E to handle learners with learning difficulties.
- The government through the teachers Service Commission To Employ More teachers so that mathematics teachers can be given less lessons.
- Teachers should handle learners as individuals and cater for their diverse needs by giving remedial teaching.

5.5 SUMMARY

The main objective of this study was to investigate the challenges facing teachers teaching learners with learning difficulties in arithmetic integrated in regular schools in Muthambi zone. The researcher gave a brief background information to the study. Poor performance in mathematics prompted the researchers to carrying out the study.
The researcher used survey design to gather information on challenges facing teachers who handle learners with arithmetic difficulties. The target populations were mathematics teachers whose sample size was ten percent (10%) of two hundred (200) teachers in Muthambi zone. This was reached through convenience sampling. Questionnaires prepared for the teachers were used to collect data. The raw data was interpreted and analyzed using frequency tables. The results of chapter four indicated that teachers with arithmetic difficulties have negative altitudes thus contributing to poor performance among learners.

Only a few teachers are trained in SNE. The most commonly used teaching resources were learners text books and chalkboard though they are not the best for use with learners who have learning difficulties. On the other hand, questions and answer was the most commonly used method of teaching.
REFERENCES


Njuki D.P and Oganda G.O (2001) Learners with learning difficulties in an inclusive setting Kampala. UNISE.


APPENDIX A

QUESTIONNAIRE

KAMPALA INTERNATIONAL UNIVERSITY UGANDA
TO BE FILLED BY REGULAR TEACHERS HANDLING
MATHEMATICS.

Kindly complete this questionnaire for the purpose of my study on challenges facing teachers handling arithmetic challenged learners. The information gathered from your response will be held in confidence and used for research purpose only.

Put A preliminary question.

Please tick the appropriate response.

(i) Gender; male: [ ] Female: [ ]

(ii) Professional qualification
Certificate [ ] diploma [ ]
Degree [ ] others [ ]

(iii) Teaching experience
1-5 years [ ] 6-10 years [ ]
11 and above [ ]

PART B: PLEASE ANSWER THE FOLLOWING QUESTIONS
1. Explain in your own words what you understand by the term arithmetic challenged?
2. How would you advice a teacher to handle a learner with arithmetic difficulties?
3. Do you enjoy teaching mathematics in your school?

   (a) YES □

   (b) NO □

4. What is your opinion about teaching learners with arithmetic difficulties.

   (a) It is tiring □

   (b) It requires a lot of commitment □

   (c) It is boring □

   (d) None □

5. Do you give remedial teaching in mathematics for under-achievers?

   (a) YES □

   (b) NO □

6. How many times in a week do you give remedial teaching to individual learners?

   (a) Once □

   (b) Twice □

   (c) Daily □

   (d) None □
7. Which of the following methods do you use more often?

(a) Lecturer method

(b) Question and answer

(c) Discussion

(d) Observation

(e) Peer tutoring

8. What is the ability of learners with arithmetic difficulties in mathematics?

(a) Average

(b) Above average

(c) Below average

9. Do learners with arithmetic difficulties remember what was taught in the previous lesson?

(a) YES

(b) NO
10. How is the participation of learners with arithmetic difficulties during mathematics lesson?
   (a) Passive  
   (b) active  

QUESTIONNAIRE TO BE FILLED BY REGULAR LEARNERS WITH ARITHMETIC DIFFICULTIES

PART A PRELIMINARY QUESTIONS
Please tick the appropriate response.

(i) Gender Male  Female  

(ii) Class
   Special unit  STD  
   Regular  

PART B. Please answer the following questions.

1. What problem do you see learners with arithmetic difficulties experiencing?
   (i) ____________________________
   (ii) ____________________________
   (iii) ____________________________
   (iv) ____________________________
2. What would you like your teacher to do in order to pass the exam?

(i) ______________________
(ii) ______________________
(iii) ______________________

3. How do you think mathematics can help you after school?

____________________________________
APPENDICES B: ETHICAL DOCUMENT.
24th April 2008

TO WHOM IT MAY CONCERN:

Dear Sir/Madam,

RE: INTRODUCTION LETTER FOR MS/MRS/MR. JOSEPHINE K NYALA

The above named is our student in the Institute of Open and Distance Learning (IODL), pursuing a Diploma/Bachelors degree in Education.

He/she wishes to carry out a research in your Organization on:

AN INVESTIGATION OF CHALLENGES FACING TEACHERS TEACHING LEARNERS WITH LEARNING DIFFICULTIES IN ARITHMETIC INTEGRATED IN REGULAR SCHOOLS IN MUTHAMBI DIVISION, NERU SOUTH DISTRICT, KENYA

The research is a requirement for the Award of a Diploma/Bachelors degree in Education.

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

Yours Faithfully,

MUHWEZI JOSEPH
HEAD, IN-SERVICE
APPENDICES C

A CONCEPTUAL FRAMEWORK.

MATHEMATICS

NEGATIVE ATTITUDE
RIGID CURRICULUM
POOR RESOURCES AND TEACHING METHODS
CHILDFORM NEGLETED FAMILIES

STUDENT

POOR PERFORMANCE AND DROP OUTS