

**ANALYSIS OF TEACHERS' COMPETENCIES, TEACHING AND
LEARNING STRATEGIES TEACHERS USE TO EDUCATE PUPILS WITH
LEARNING DISABILITIES IN REGULAR PUBLIC PRIMARY SCHOOLS IN
THIKA WEST DISTRICT, KIAMBU COUNTY: KENYA**

BY

MILKAH NJERI NJUGUNA

**A THESIS SUBMITTED IN FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF EDUCATION SPECIAL NEEDS
EDUCATION AT
KENYATTA UNIVERSITY**

NOVEMBER, 2012

DECLARATION

This thesis is my original work and has not been presented for a degree in any other university.

Signature _____

Date _____

Milkah N. Njuguna

E55/10497/08

This thesis has been submitted with our approval as University Supervisors.

Signature _____

Date _____

Dr. Nelly Otube

Lecturer, Department of Special Needs Education

Kenyatta University

Signature _____

Date _____

Dr. Mary Runo

Lecturer, Department of Special Needs Education

Kenyatta University

DEDICATION

To my dear parents, the late Dad Isaac N. Mun'gerethi, my mother Josephine Wacheke Njuguna who have greatly contributed to what I am today, my husband Moses Karanu for endless support he has accorded me during the trying periods of undertaking a study of this magnitude and lastly, to my dear son and daughter Kevin Njuguna and Vivian Wanjiru respectively who stood by me during this time.

ACKNOWLEDGEMENT

This road would not have come to an end if the following persons did not participate to see me through during my entire study period. I am extremely indebted to my two supervisors, Dr Nelly Otube and Dr Mary Runo whose professional input has greatly helped me to develop this document. Dr Otube has been there for me any time I needed her assistance and at no time did she feel that I was a bother. May our Almighty God bless her. I am equally grateful to Dr Runo who kept on pushing me even when the road seemed rough. Her words of encouragement ‘Milkah, I want to see you graduate’ pushed me to spending sleepless nights working on my thesis. Many thanks also go to Professor Karugu of Department of Special Needs Education, Kenyatta University who also gave me professional guidance whenever I consulted him.

My gratitude also goes to my research assistants to mention some; Lydiah Kagwai and Jane Mwangi who tirelessly worked with me, walking for long distances to various schools to drop questionnaires and interviewing head teachers. It was not an easy endeavour. Very special thanks go to teachers and head teachers from whom I collected data for my study. May the Almighty God meet them at their points of need. Mr. A. D. Bojana and Mr. P. K. Wahome deserve gratitude for their editorial input.

Finally, I wish in a very special way to acknowledge my loving husband Moses Karanu for his overwhelming support both financially and morally. May our Almighty God bless him abundantly for his support during the entire study period. To my two loving children Kevin and Vivian, I am very grateful for being there for me

and for your understanding, particularly when I was not there for you when you needed me most as a mother during the time taken up by my studies.

Many thanks go to all my friends, and in particular Milkah Wanjiru, colleagues and, particularly Mr. Ngugi, Mr. Jotham Thiaka and Anne Kamau for supporting me during my entire study period. Know that you are highly appreciated. Special thanks go to Doreen Andala for typing the whole thesis, Ms A. Chadamba, for formatting my document. Finally, I wish to give thanks to Almighty God, giving him all the Glory and Honour, for giving me the strength to move on even when the road seemed rough.

ACRONYMS

ADHD	-	Attention Deficit Hyperactivity Disorder
EFA	-	Education for All
FPE	-	Free Primary Education
ICLD	-	Interagency Committee of Learning Disabilities
IDEA	-	Individuals with Disability Education Act
IEP	-	Individualized Educational Programme
KIE	-	Kenya Institute of Education
LD	-	Learning Disabilities
MoE	-	Ministry of Education
MoEST	-	Ministry of Education Science and Technology
PWD	-	People with Disability
SNE	-	Special Needs Education
UNESCO	-	United Nations Educational Scientific and Cultural Organization
UNICEF	-	United Nations International Children Education Fund
TAC	-	Teachers Advisory Centres
U P E	-	Universal primary Education

TABLE OF CONTENTS

DECLARATION	i
DEDICATION	ii
ACKNOWLEDGEMENT	iii
ACRONYMS	v
LIST OF FIGURES	xi
LIST OF TABLES	xii
ABSTRACT	xiii

CHAPTER ONE: INTRODUCTION

1.0 Introduction.....	1
1.1 Background to the Study.....	1
1.2 Problem Statement.....	5
1.3 Purpose of the Study	7
1.4 Objectives of the Study	8
1.5 Research Questions	8
1.6 Significance of the Study	8
1.7 Delimitation of the Study.....	9
1.8 Limitations of the Study.....	9
1.9 Assumptions of the Study	10
1.10 Theoretical Framework	10
1.11 Operational Definition of Terms.....	14

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.0 Introduction.....	15
2.1 Qualifications of Teachers Teaching Children with LD	15
2.2 Identification and Classroom Instructional Assessment of Learning Disabilities	17
2.2.1 Identification of LD	17
2.2.1.1 Phases of Early Identification	18
2.2.1.2 Classification of Learning Disabilities.....	19
2.2.1.3 Characteristics of Learning Disabilities.....	20

2.2.2 Classroom Instructional Assessment of Learners with Learning Disabilities	22
2.2.2.1 Informal Classroom Based Assessment.....	23
2.3.0 Teaching and Learning Strategies and Materials.....	25
2.3.1 Applied Behaviour Analysis Techniques.....	25
2.3.2 Direct Instruction	25
2.3.3 Cognitive Strategy Instruction	26
2.3.4 Peer Tutoring	27
2.3.5 Cooperative Teaching	28
2.3.6 Authentic Learning	28
2.3.7 Teaching and Learning Materials	29
2.3.8 Selection of Teaching and Learning Materials	30
2.3.9 Modification of Teaching and Learning Materials	31
2.4 Collaboration.....	31
2.4.1 Roles Played by Teachers in a Collaborative Model.....	32
2.4.2 Planning for Effective Collaboration.....	33
2.4.3 Activities that Would Promote Co-teaching	34
2.5 Summary of Literature Review.....	35

CHAPTER THREE: RESEARCH METHODOLOGY

3.0 Introduction.....	37
3.1 Research Design.....	37
3.2 Variables	37
3.2.1 Dependent Variables	38
3.2.2 Independent Variables	38
3.3 Location of the Study.....	38
3.4 Target Population.....	38
3.5 Sampling Techniques and Sample Size	39
3.5.1 Sampling Technique	39
3.5.2 Sample Size.....	40
3.6 Research Instruments	40

3.7 Pilot Study.....	41
3.7.1 Validity	42
3.7.2 Reliability.....	43
3.8 Data Collection Procedures.....	43
3.9 Data Analysis	44
3.10 Logistical and Ethical Considerations	44

CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction.....	46
4.1 Section one: Demographic Data for Teachers and Headteachers	46
4.2 Section two: Results of the Study that Were Analyzed in Themes.	48
4.2.1 Professional Qualifications of the Headteachers and Teachers	48
4.2.2 Identification and Classroom Instructional Assessment of Learners with LD50	
4.2.2.1 Identification of learners with LD.....	51
4.2.2.1.1 Information on Checklist Used by Teachers to Identify Learners with LD	52
4.2.2.2 Classroom Instructional Assessment of Learners with Learning Disabilities	55
4.2.2.2.1 Tools used for Classroom Instructional Assessment	56
4.2.2.2.2 When Learners with Learning Disabilities are Assessed..57	
4.2.2.2.3 Perception of Teachers towards Classroom Instructional Assessment.....	58
4.2.2.2.4 Opinions of Teachers on Classroom Instructional Assessment.	59
4.2.2.2.5 Usefulness of Classroom Instructional Assessment to Teachers.....	60
4.2.2.2.6 Classroom Instructional Assessment Methods Used by Teachers.....	61
4.3: Teaching and Learning Strategies and Materials.....	62
4.3.1 Teaching and Learning Methods Used.....	62
4.3.1.1 Difficulties Encountered by Teachers when Teaching Learners with Learning Disabilities	63
4.3.1.2 Further Teachers' Views on Teaching and Learning Strategies	65

4.3.1.2.1 Additional assistance Teachers Need in Order to Help Learners with LD.....	66
4.3.1.3 Organizing Seminars and Workshops for Upgrading Teaching Skills	67
4.3.2 Teaching and Learning Materials	67
4.3.2.1 Reasons for Selecting Teaching Materials.....	69
4.3.2.2 Adequacy of Teaching and Learning Materials.....	70
4.3.2.3 Recommendations for Addressing Inadequacy of Teaching and Learning Materials	70
4.3.2.4 Challenges Experienced by Headteachers While Providing Teaching	71
4.4 Collaboration.....	72
4.4.1 Availability of Resource Persons, Help Received from the Resource Person and Knowledge on Collaboration.....	72
4.4.2 Challenges experienced by Teachers During Collaboration	74
4.4.3 Environment for Collaboration	75
4.4.4 Views of Teachers and Head teachers Towards Collaboration.....	75
4.4.5 Areas of collaboration	76
4.4.6 Support from Head Teachers.....	77
4.4.7 Views of Teachers and Headteachers on Need for More Training on	78
collaboration	78
4.4.8 Challenges Faced by Headteachers when Supporting Collaboration	78
 CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS	
5.0 Introduction.....	79
5.1 Summary of the Findings.....	79
5.1.1 Demographic Characteristics of Teachers and Headteachers.....	79
5.1.2 Professional Qualifications of Teachers	79
5.1.3 Identification and Assessment of Learners with Learning Disabilities	80
5.1.4 Teaching and Learning Strategies and Materials.....	80
5.1.5 Collaboration.....	82
5.2 Conclusion	83
5.3 Recommendations.....	84
5.3.1 The Government.....	85

5.3.2 Kenya Institute of Education	85
5.3.3 Teacher Advisory Centre Tutors	86
5.3.4 Headteachers and Teachers	86
5.4 Areas of Future Research.....	87
APPENDICES	95
APPENDIX A: Introduction Letter	95
APPENDIX B: Questionnaire for teachers on teaching and learning strategies and materials utilized when teaching learners with learning disabilities	96
APPENDIX C: Interview schedule for the headteacher on learning disabilities.....	101
APPENDIX D: Lesson observation schedule on teaching, learning strategies and materials used by teachers teaching learners with disabilities.....	103
APPENDIX E: Checklist on characteristics of learners who may have learning disabilities	106
APPENDIX F: Research Authorization Letter	108

LIST OF FIGURES

Figure 1.1: Conceptual Framework	13
Figure 4.1: Tools used for classroom instructional assessment.....	56
Figure 4.2: When learners are assessed	57
Figure 4.3: Opinions of teachers on classroom instructional assessment.....	59
Figure 4.4: Classroom instructional assessment methods used by teachers	61
Figure 4.6: Reasons for selecting materials for teaching	69
Figure 4.7: Recommendations for addressing inadequacy of teaching materials.....	70
Figure 4.8: Areas that teachers work together when teaching children with disabilities	76

LIST OF TABLES

Table 3.1: Sample Size	40
Table 4.1: Demographic data for teachers and headteachers.....	47
Table 4.2: Professional qQualifications and areas of specialization of the Head	
Table 4.3: Knowledge of identifying children with learning disabilities	51
Table 4.4: Checklist for identifying learners with LD.....	52
Table 4.5: Classroom instructional assessment of learners with learning disabilities ..	55
Table 4.6: Perception of teachers towards classroom instructional assessment	58
Table 4.7: Usefulness of classroom instructional assessment to teachers	60
Table 4.8: Teaching and learning methods used by teachers.....	62
Table 4.9: Difficulties encountered when teaching learners with learning disabilities	63
Table 4.10: Views on research on current trends, whether teachers are equipped with skills and knowledge, and whether they needed in-service training.....	65
Table 4.11: Additional assistance teachers need in order to help learners with LD	66
Table 4.12: Organizing seminars and workshops for upgrading teaching skills	67
Table 4.13: Teaching and learning materials and usage of the materials by teachers ..	68
Table 4.14: Challenges experienced by head teachers when providing materials for learners with LD	71
Table 4.15: Availability of resource person, help received and whether teachers have knowledge in collaboration.....	72
Table 4.16: Challenges faced by teachers during collaboration	74
Table 4.17: Reasons for not collaborating	76
Table 4.18: Support given.....	77
Table 4.19: Views of teachers and head teachers on more training in collaboration	78

ABSTRACT

The study aimed at establishing the professional qualifications of teachers educating learners with learning disabilities. It also intended to investigate whether teachers in regular public schools are able to identify and assess learners with learning disabilities. Another aim was to establish the teaching, learning strategies and materials used by teachers when educating learners with LD. Finally, the study intended to find out whether there were collaborative structures and support that have been put in place in schools to help learners with LD. The study adopted both qualitative and quantitative research approaches where mixed methods design was used to collect and analyze data from headteachers, teachers and learners. The study embarked on interviews for headteachers by use of structured interview schedule, semi-structured questionnaires for teachers and finally a lesson observation schedule for learners with LD and materials utilized in classroom. The study was conducted in Thika West District, Juja zone. Purposive sampling was used to select the district, schools, classes 1-4, headteachers and teachers. Learners with learning disabilities were randomly selected after being identified through the use of an identification tool containing characteristics of LD. Identification was done four weeks prior to the study. The sample size comprised 4 headteachers, 32 teachers and 64 learners making a total of 100 respondents. Data collected were analyzed both quantitatively and qualitatively. Quantitative data from the questionnaires for teachers and observation schedule for the learners and materials were analyzed using statistical package of social sciences (SPSS). Data collected using an interview schedule and open-ended questions from questionnaires were analyzed qualitatively. The results were obtained and presented based on the objectives and questions formulated for the study. The study found that all teachers had professional qualifications to teach classes 1-4 but majority had not specialized in the area of LD. However, though headteachers had special education training, there was no evidence of support of LD. None of the headteachers had started an LD programme in their respective schools. The study also found that though teachers claimed to have knowledge of identifying learners with LD, they did not have any identification tool in class. The study also found out that the teachers used a variety of teaching methods but they experienced difficulties helping the learners. In collaboration, the study found out that teachers worked together in identification, instructing and assessing learners with LD among other areas but needed more training to enhance their skills in collaboration. The study concluded that inadequate knowledge for identification of LD and failure to use an identification tool in class could be the possible reason why teaching and learning strategies used by teachers could not work. This is because individual learners with LD were not identified and the skills deficit were also not identified hence appropriate intervention not done. The study recommended that the Ministry of Education facilitate workshops and in-service training for teachers to enable them acquire modern teaching and learning methods. KIE to ensure that standardized identification and assessment tools and modified teaching materials are developed. Finally, pullout programmes initiated in schools so that learners with specific learning difficulties can be assisted by the resource teacher and joins the rest in class.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

The aim of the study was to analyze teachers' competencies, teaching and learning strategies teachers use to educate learners with LD. This chapter presents background to the study, problem statement, purpose of the study, research objectives, research questions, significance of the study, delimitations, limitations of the study, assumptions of the study, theoretical framework, conceptual framework and operational definitions.

1.1 Background to the Study

Universal Primary Education is a global goal. Providing education as a right is an obligation of all governments and requires that they translate their national commitments into legislation. This goal will only be achieved when the universal right to education extends to all individuals including those with special needs and disabilities in the country (MoEST, 2003). Further, the convention on rights of the child enshrine the right to all children to a primary education that will give them skills in numeracy, literacy and life skills. This will enable them to learn well throughout life (UNICEF, 1998). People with disabilities (PWD) make up 10% of the total world population, approximately 3.5 million people (WHO, 2006). A census report released by Kenya Bureau of Statistics (2009) indicates that in Kenya, disability population is 0.5% which is quite high (Daily Nation 2nd September, 2010:6). These are the most disadvantaged and marginalized groups of people and individuals, and experience a lot of discrimination at all levels of the society. Children with special needs and especially those with LD face a host of problems. They live in hostile bleak

environments where their safety and security are compromised and future jeopardized. They are disempowered, denied opportunities for advancement and largely remain voiceless as a result of inbuilt social, cultural and economic prejudices, violence and abuse (Kamunge, 2009). Generally, learners with learning disabilities have above normal intelligence, yet they do not achieve at the same academic level as their peers. Their disability is hidden in such a way that they may appear normal yet do not perform commensurate to their age mates. Their weaker academic achievement particularly in reading, written language and mathematics hinder them from achieving their fullest potential in life thus enhancing poverty and high dependency ratio (Weinberge, 1978; Chadha, 2001).

According to individuals, with disability Education Act IDEA (2001), Learning disability means: “a disorder in one or more of the basic psychological processes involved in understanding and in using language, both spoken and written, which may manifest itself in imperfect ability to listen, speak, read, write spell or do mathematical calculations. Such terms include perceptual abilities, brain injury minimal brain dysfunction, dyslexia and developmental aphasia. Such does not include learning problems that are primarily the result of visual, hearing or motor disabilities, mental retardation, emotional disturbance, environmental, cultural or economic advantage” (IDEA, 1997, SEC 602.26).

Other organizations that tried to make a universally accepted definition were National Joint Committee on Learning Disabilities (NJCLD) and Interagency Committee on Learning Disabilities (ICLD) (Lerner, 2006). They have defined learning disability as:

“a group of disorders that result in significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning and performing mathematics calculations which is intrinsic to the child (NJCLD,) and a state in which the child has difficulties in listening, speaking, reading, writing, reasoning or doing mathematical calculations. (Lerner, 2006).

The history of learning disabilities began shortly after world war 11 when educators began to experience a new phenomenon in the classroom. Teachers worldwide were beginning to experience increasing numbers of learners with average or above average intelligence who were having difficulty in learning and sometimes performed below their peers who were also of average intelligence. The new phenomenon of varying learning strengths and weaknesses of the children of interest were completely different from anything known to the educators. It was suspected that the teaching challenges they presented might be due to heredity or other mysterious factors. With advance in technology, it was discovered that the way in which the brain and the nervous system develop is influenced by the experiences that the child has during infancy and childhood while the nervous system is developing. Based on the new information, it was concluded that the development of the brain and the nervous system differs from child-to-child and the specific differences in the brain and the nervous system development accounted for differences in the ability to benefit from the traditional teaching methods (<http://www.understanding-learning-disabilities.com/history-learning-disabilities.html>). Children with learning disabilities have unusual ways of perceiving the world. Their neurological patterns seem somehow different from those of children of the same age. Persons with learning disabilities have in common some types of failure in school or in the community.

They are not able to do what others with the same level of intelligence are able to accomplish. Furthermore, these children develop low self-esteem and perform poorly in school due to repeated past failure. The disability prevents the child from not only becoming a productive member of the society but also make him/her not maximize his potentials in life and thus enhancing poverty and high dependence ratio (Chadha, 2001; Lerner, 2006). Studies by Kinyua (2010) indicate that pupils with LD encounter challenges carrying out certain tasks assigned to them, for example in reading, writing and in mathematics. Such students have been referred to as non-performers.

Teachers teaching children with learning disabilities need to have an understanding of some keys to success. For example, asking questions in a clarifying manner, use of overhead projectors with an outline of the lesson or unit of the day, reducing course load for these learners, providing clear photocopies of notes and overhead transparencies if the student can benefit from such a strategy and providing a detailed introduction that would address the needs of learners with LD.

In Kenya, a study conducted by Runo (2010) indicates that, a good number of learners who experience reading difficulties which is a component of LD are made to repeat classes while others drop out of school due to lack of motivation and frustration. According to Kenya National Development Plan (2002-2009), the 1999 repetition rate in primary school was 14% for males and 13% for females, a total of 27% which is quite high. The Sessional Paper No 1 of 2005 on policy framework on education training and research says that the survival rate at the primary level has been as low as 40% per cent. Further, a recent research by Kenya National Examinations Council (KNEC, 2010) titled “school disaster in making “reported that 6 out every 10 children

in standard three have already repeated a class, the survey found that this is about 60% which signifies a high wastage in school system. According to KNEC, this kind of repetition can be solved through use of learner-centred approach where teachers paid attention to weak learners (Daily Nation, 22nd June, p. 1. 2010). It is critical that teachers utilize those teaching and learning strategies that would address the needs of learners with LD since this category seems to be forgotten. It was against this background that the researcher wanted to analyze teachers' competencies, teaching and learning strategies they used to educate learners in regular public primary schools.

1.2 Problem Statement

Children with learning disabilities are found in all nations, language groups, and cultures of the world. Accumulative research shows that in all cultures there are children who seem to have normal intelligence but they have severe difficulties in learning oral language, acquiring reading or writing skills or doing mathematics. It is a condition that is identified after a learner has entered school and starts performing poorly in academic subjects. It is one of the newest classifications and it presently constitutes a number of special needs category and continues to grow at an alarming rate (Runo, 2010). Further, a study conducted by Runo (2010) indicates that children with learning disabilities account for well over half of the children served through special educational programmes. They are made to repeat classes while others drop out of school. They develop low self-esteem due to repeated failures. Research studies indicate that early identification and intervention leads to a seventy recovery of the children at risk. Early intervention makes the child a productive member of the society who is a tax payer and not a tax receiver (Lerner, 2006).

Following the introduction of Free Primary Education (FPE) Programme in January 2003, the enrolment of children increased from 5.9 million in 2002 to 7.4 million in 2004 (MoE Statistics Booklet, 1994-2004). This was critical to the attainment of Universal Primary Education (UPE) as a key milestone towards the realization of education for all (EFA) goals. According to the Ministry of Education, this has negatively affected quality education due to overstretched facilities, overcrowding in schools and large class sizes in densely populated areas (MoEST, 2003).

A report released by Uwezo - Kenya (2010) indicate that there are lots of schooling and little learning, large allocation of public resources have been channeled to schools, parents have scrambled to cover their share too by providing uniforms, books, pens, extra tuition and not forgetting transport. The big question is, are these achievements translating into concrete improvement in children's competencies and particularly those with learning disabilities?

According to EFA Global monitoring reports UNESCO (2005), achievements of universal participation in education will fundamentally depend upon the quality of education available, for example, how well pupils are taught and how much they learn which have a crucial input on how they stay in school and how regularly they attend. Quality education as affirmed by Dakar Framework for Action (2000) set out the desirable characteristics of learners (healthy, motivated students), the process (competent teachers using active pedagogical methods) and for systems (good governance and equitable resource allocation). This poses the need for teachers to utilize those teaching and learning strategies that would address the needs of all learners including those with LD.

Few studies have been conducted in the area of learning disabilities. For example, “factors influencing teacher intervention for learners with slow learning abilities.” Kamunge (2009), promoting teacher- parent collaboration in curbing the condition of LD, Kinyua (2008), early identification of learning disabilities among standard 3 pupils of public primary schools, Wafula (2010). Existing research data that have been reviewed relate to learners in developed countries. As a result of clear and elaborate research activities developed in these countries, there are specific programmes for learners with LD. Scarce research has been conducted in these countries with the consequences that teachers may not have adequate knowledge in LD instruction. No study at least known to the researcher has dealt with the current topic hence the need to carry out the study.

1.3 Purpose of the Study

The purpose of this study was to analyze the teachers’ competencies, teaching and learning strategies they use to educate learners with learning disabilities in regular public primary schools. The study also sought to establish the professional qualifications of teachers educating learners with LD. It also sought to establish whether teachers are able to identify and assess learners with learning disabilities and finally establish whether there were collaborative structures and support put in place when educating learners with LD. The study is hoped to be useful to the policy-makers and curriculum developers of teacher training colleges. Other stakeholders who could benefit from this study are headteachers and teachers.

1.4 Objectives of the Study

- i) To establish professional qualifications of teachers educating learners with LD.
- ii) To investigate whether teachers in regular schools are able to identify and assess learners with learning disabilities in the classrooms.
- iii) To establish teaching, learning strategies and materials used by teachers when educating learners with LD.
- iv) To find out whether there are collaborative structures and support that have been put in place in schools to help learners with LD.

1.5 Research Questions

- i) What are the professional qualifications of teachers educating learners with LD?
- ii) How do teachers in regular schools identify and assess learners with learning disabilities?
- iii) What teaching and learning strategies and materials are used by teachers educating learners with LD?
- iv) What are the collaborative structures and support that have been put in place by teachers educating learners with LD?

1.6 Significance of the Study

The findings of this study are likely to be used by the government through the Ministry of Education, Science and Technology (MOEST) to formulate and implement ideal policies that would support education for learners with learning disabilities so that they can learn and complete their education. The Kenya Institute of

Education (KIE) is likely to use the findings of the study to develop modern teaching and learning strategies, modified materials and activities, introduce standardized identification and assessment tools to help learners with learning disabilities. KIE is also likely to focus on LD component in the training syllabus. Teacher training colleges are likely to put more emphasis in special education component when training student teachers who will later handle children with learning disabilities in regular schools. The study will also inform parents and other stakeholders on the importance of providing appropriate learning materials and modified curriculum that would help teachers assist learners with LD. Schoolheads are also likely to be encouraged by the information gathered to provide adequate materials, support and enabling environment for collaboration among teachers.

1.7 Delimitation of the Study

The study confined itself to classes 1-4 of 4 schools in Juja Zone Thika West District. The classes were selected for study because the condition of LD can be identified as early as pre-school years and the teaching and learning strategies that work in these classes would also work in upper classes. Further, identification for learners with LD in these classes is also possible. Thika West District schools were selected because of the diversity nature of the condition of LD. The schools in this district accommodate learners of diverse cultural and language groups. Therefore, information acquired was representative of the larger group.

1.8 Limitations of the Study

The study was carried out in regular public primary schools and not private schools. There was also limited literature in the area of study especially in Kenya since very

few studies have been done in the area of LD. Finally, learners selected for the study had diverse learning difficulties and therefore, the study did not address a specific learning difficulty.

1.9 Assumptions of the Study

The investigator made the following assumptions when carrying out the study.

- i) There were teachers with special needs education training either at diploma or degree level in schools selected.
- ii) Teachers with special needs education (SNE) were able to use appropriate teaching strategies when handling children with LD unlike their counterparts who had no knowledge and skills to identify, assess and provide required intervention.
- iii) Teachers trained in special needs education comfortably handled pupils in the lower primary classes and the level of professional qualification did not dictate the class they handled and particularly degree holders.

1.10 Theoretical Framework

The study was guided by cognitive theory of instruction by Brunner (1971). He looked at role of strategies in the process of human categorization and more generally the development of human cognition. Brunner in his two books: “The process of education:” “Towards a theory of instruction and “the relevance of education” (1961-1971), respectively puts forth his evolving ideas about the ways in which instruction actually affects the mental models of the world that students construct, elaborate on and transform. He further makes a case for education as knowledge getting process by saying:

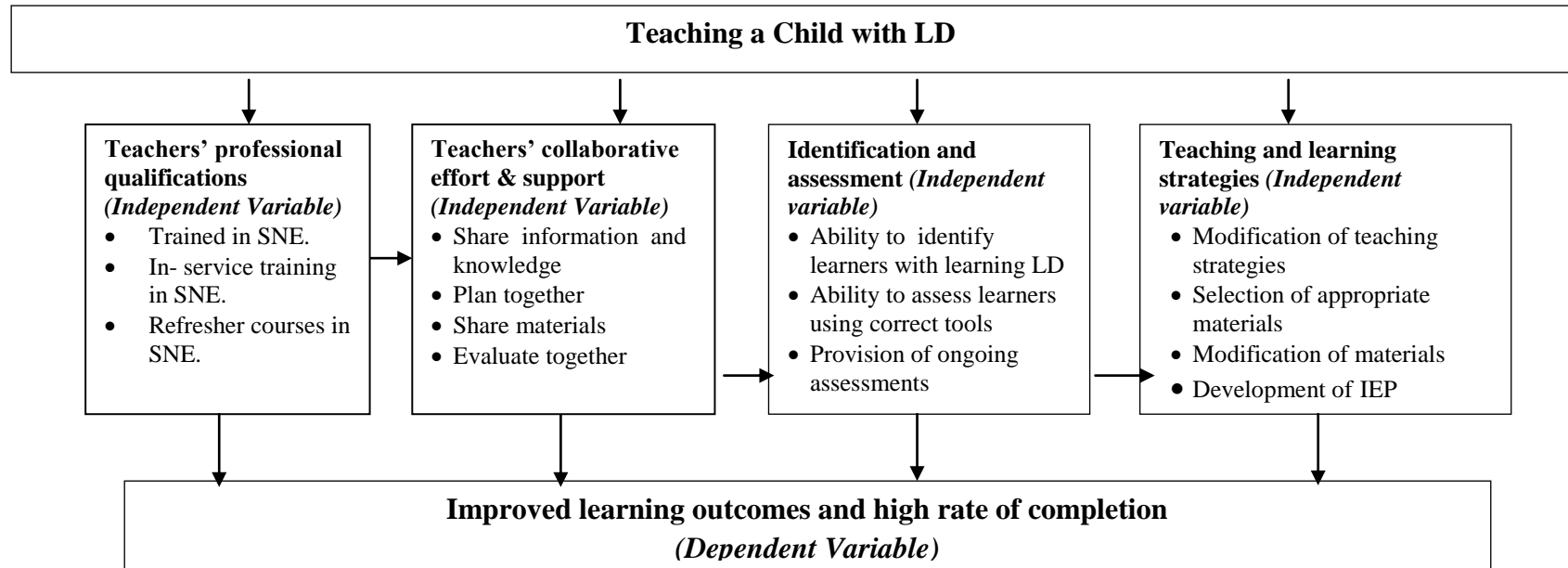
To instruct someone is not a matter of getting him to commit results to mind, rather, it is to teach him to participate in the process that makes possible the establishment of knowledge. Knowing is a process not a product. (Brunner, 1966:71).

Among the highlights in his texts are the role of structure in learning and how it may be made central in teaching, readiness for learning and motives of learning. On the role of structure in learning, he says that teaching and learning should be practical than just mastery of facts and techniques, if the earlier learning is to render later learning easier. This is relevant to children with learning disabilities whose memory is impaired and are less able to grasp abstract concepts. These learners also fail to make an active role in their own learning and fail to devise strategies that would help them accomplish tasks more efficiently (Torgesen, 1998). Practical approach would be made possible by providing children with a variety of objects (materials) to manipulate and this acts as a sensory boost. On readiness to learning, Brunner argues that schools have wasted a great deal of pupils' time by postponing teaching of important areas because they are deemed too difficult. He hypothesizes that any content can be taught effectively in some intellectually honest form to any child at any stage of development. Readiness to learning can be established through proper assessment of children with learning disabilities which will enable the teacher to establish and present level of functioning of children to make proper instructional decision.

For the motives of learning "ideally", Brunner says "interest in the material to be learned is the best stimulus to learning, rather than such external goals or grades or later competitive advantage. Children with learning disabilities are always demotivated because of continued failure in classwork; they are always ridiculed and

hallowed by classmates. The child performs poorly in class due to low self-esteem. The child will also be forced to require special education services in future which will not only cost the parents a lot of money but also the society (Chadha, 2001). This theory was ideal for this study because according to cognitive psychologist, learners with learning disabilities must learn complex concepts and fundamental problem-solving skills of the content areas in the general education curriculum. These learners also confront a number of challenges in the content areas such as organizing information on their own, having limited background knowledge of many academic activities and need sufficient feedback and practice to retain abstract information. Teachers handling children with learning disabilities will borrow Brunner's views on the learning process. They will take a practical approach when teaching in order to help these learners generalize information acquired which is a very big challenge for learners with LD. Teachers will also stimulate learners through selection of a variety of materials, modification of materials, use of varied teaching strategies and giving immediate feedback to the learners. This will make learning interesting and act as stimulus to learning.

Figure 1.1 Conceptual Framework



Source: (Researcher's interpretation from literature review , 2012)

The framework shows that a child with LD will totally depend on teachers who are professionally trained in SNE and who keep on upgrading their knowledge. These teachers will work collaboratively with regular teachers, identify and assess learners, with LD using appropriate tools, utilize correct teaching and learning strategies and materials to address the unique needs of these learners. The results will be improved educational outcomes for the child with LD.

1.11 Operational Definition of Terms

Assessment: Information gathering process from pupils' work against classwork

Collaboration: This is an interactive process where special and regular teachers work together, share experiences and knowledge in order to help learners with special needs.

Curriculum: All the selected, organized, evaluative and innovative educational experiences provided to pupils consciously under the school authority in order to achieve designated learning outcomes.

Identification: Refers to initial screening to pinpoint the child with learning disabilities for intervention purposes.

Individual teaching : This refers to working on one-on-one with an attempt to meet the unique needs of an individual learner.

Learning Difference: This is a concept that all individuals have variation in learning abilities in various areas.

Learning Difficulty: This is a concept that some individuals may experience difficulties in accessing learning.

Learning Disability: A basic psychological processing deficit that involves anyone or all the following skills, ability to think, listen, speak, read, write, spell and calculate.

Learning materials : These are resources that are used in class to enhance learning.

Teaching Strategies : These are methods that are used in the lesson to ensure that the sequences or delivery of instruction help pupils to learn.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

The aim of this chapter was to review some of the works that have been documented by various authors and researchers. It consisted of qualifications of teachers teaching children with LD, identification and assessment of children with LD, classification and characteristics of LD, teaching and learning strategies and materials suitable for children with LD and lastly collaboration among regular and special education teachers.

2.1 Qualifications of Teachers Teaching Children with LD

According to the Bureau of Labour Statistics U.S.A (2010-2011), children with learning disabilities should be taught by teachers that are well-equipped with skills and knowledge on appropriate teaching strategies. Further, special needs education teachers must complete a four-year bachelors degree programme that includes general and specialized coursework in special education. If a teacher is required to obtain a specific specialization, he or she must complete an additional year of training at the graduate level. Alternative programmes are open to anyone with bachelors degree in any field. These candidates must complete a year of supervised preparation and instruction and pass an assessment test to begin teaching. These teachers must have acquired teaching methods like small group learning, problem-solving assignments and intensive individual instruction related to the learners disability. Communication and cooperation are also essential skills special education teachers must have because they spend a great deal of time interacting with parents, school faculty and administration (Bureau of Labor Statistics USA).

Kelchner (2011) also maintains that special education teachers must have professional qualifications that will enable them to help children with special needs. According to him, working in the classroom with learners provides experience and hands-on training under supervision of experienced teachers. Teachers are also supposed to be creative, flexible and have the ability to adapt to the needs of the children using teaching and learning strategies that work best. The special education teacher is also required to set up programmes to identify and assess, instruct learners using modified techniques, participate in the screening and collaborate with regular education classroom teacher to design and implement instructions (<http://www.ehow.com/info7931646qualifications-special-education-teacher>).

A study conducted by Wafula (2010) on early identification of learning disabilities among standard three pupils indicates that intensive instruction of appropriate duration provided by a trained teacher remediates the deficient reading skills of many children with learning disabilities. According to him, training and skills of the teacher will determine the success of even the best-designed reading intervention programme. Wafula further asserts that usage of appropriate teaching methods is the key to helping learners with learning disabilities. Studies in the US according to Wafula have found that most regular classroom teachers feel they are not prepared to address individual differences in learning abilities within classroom settings, (Lyon, 1996).

Further findings reveal that even special educators themselves do not possess sufficient content knowledge to address the unique needs of learners with LD. Teachers who are inadequately prepared have a tendency to refer children for specialized assistance because they feel ill-equipped to provide the necessary early

identification. (Lyon,1996; Moats,1994). Teachers that are well-trained are empowered with skills and knowledge to identify the special educational needs, make appropriate curriculum adaptations and adopt several techniques such as peer tutoring, cooperative learning, task analysis and multisensory approach (Chadha, 2001). There is, therefore, dire need to analyze teachers' competencies and teaching strategies they use to educate learners with LD.

2.2 Identification and Classroom Instructional Assessment of Learning Disabilities

2.2.1 Identification of LD

The classroom teacher is usually the first to notice signs of learning disabilities and refers students for special education assessment. This poses the need for both the special and regular teachers to have knowledge on classification and characteristics of LD in order to identify the learners. In addition, the teachers assist in gathering assessment information and in coordination of special services. Learners may be identified disabled at any age, but mostly are noticed during the elementary years. There are two major indicators of learning disabilities. First, students appear capable but experience extreme difficulties in some areas of learning. This is a discrepancy between expected achievement and actual achievement. For example, a young child may appear bright but, very slow to learn and to say the alphabet, write his/her name and count to twenty. The second indicator is variation in performance, where there is a discrepancy among different areas of achievement. A class four student may perform well in mathematics but read and spell poorly (Lewis and Doorlag, 1983).

2.2.1.1 Phases of Early Identification

According to Lerner (1981), there are four separate but related phases of identification of children with learning disabilities. First, there is the child find, which refers to ways of pinpointing that there is a child with learning disability in class and this is done by the regular teacher. Second, there is screening which attempts to identify children who need further study. Screening is a short, low-cost assessment of children's vision and hearing, speech and language, motor skills, self-help skills, social emotional skills and cognitive development. Third, diagnostic stage that consists of determining the extent of developmental delay and devises an intervention programme. The emphasis is on methods of comprehensively examining a child through formal and authentic measures to determine whether the child's problems warrant special services. A multi-disciplinary team determines the nature of the problem, its severity and the intervention and placement that the child needs. Lastly, the evaluating stage, which concentrates on measuring progress and judging whether a child remains in a special education programme and planning for transition. This stage of assessment helps determine whether the child needs special education services, what skills the child has learned and still lacks, and what new placement will be needed.

Early detection of high risk cases will permit plans to be made to stop further development of learning disabilities. Research studies by Lerner (2006) have demonstrated that early comprehensive and intensive intervention after identification is beneficial for children with disabilities, their families and society. Many difficult conditions are alleviated, disorders are overcome and other problems managed to control the occurrence of secondary problems for better educational outcomes of the

child in future. Substantial community finances are saved by reducing the number of children in need of special education and reduce both family economic and social stress of coping with a child having LD and reduce dependency. Further, when a child's problems are recognized early, school failure can be to a large extent prevented and reduced (Guralnick, 1997).

Wafula, (2010) conducted a study on early identification of learning disabilities among standard 3 pupils of public primary schools. The researcher used both stratified and systematic sampling methods to get a sample size of 37 class three teachers, 25 headteachers from 25 sampled public primary schools. The study findings showed that most teachers lacked adequate training in special needs education, hence their ability to identify and assess children with learning difficulties is hampered. Consequently, children with learning disabilities are not helped using modified methods that would address their needs. Wafula (2010) further says that teachers who have a close contact and interaction with their pupils have the ability to provide early identification for intervention and individualized attention. The close teacher-pupil interaction enables the teacher to closely observe and identify the learning difficulties the child has. This current study sought to find out the ability of the teachers to identify learners with LD in order to provide early intervention.

2.2.1.2 Classification of Learning Disabilities

Children with learning disabilities can be classified in three categories, namely; the neuropsychological/developmental learning disabilities, academic/achievement disabilities and social disabilities. The neuropsychological model assumes that learning disabilities are due to something wrong with the child's brain or perceptual

systems, some type of neurological dysfunction, disturbances in perceptual motor functioning and imbalance of intelligence abilities (Kavale, Fornes & Bender, 1995). This neurological disorder causes difficulty in organizing information received, remembering it and expressing information and therefore, affects a person's basic function such as reading, writing, comprehension and reasoning. Such children also experience memory and attention disorders.

Academic or achievement disability on the other hand manifests itself in school subjects such as reading, writing, spelling and mathematics. These problems are rarely detected before a child joins school because few serious demands are made at pre-school (Wolery & Bailer, 2003). Socially, children with LD may demonstrate social or behaviour challenges. Some exhibit socially unacceptable behaviours with peers, they are unable to predict consequences of behaviours, misinterpret social cues or are less likely to adapt their behaviour to different social situations. They are sometimes rejected or neglected by their peers. Coupled with academic weaknesses, this experience can lead to lowered self- perceptions of competence or worth among older individuals with LD. Others who have LD have difficulty sitting at a desk for long periods of time in order to attend to classroom tasks and may develop social or behaviour problems in response to their frustration with learning tasks (<http://www.ericdigests.org/2002-2004/learning-disabilities.html>).

2.2.1.3 Characteristics of Learning Disabilities

Learners with learning disabilities are said to have average intelligence but have difficulty in one or more basic psychological processes which manifest themselves in one or more basic areas which make a child struggle to learn, (Kirk, Gallagher,

Anastasiow, 2003). Some of these basic areas are mathematics, language (both spoken and written) and reading difficulties which are the most fundamental characteristics of individuals with LD. Learning disabilities in mathematics vary greatly depending on the child's other strengths and weaknesses. A child's ability to do mathematics will be affected differently by a language learning disability, or a visual disorder or a disorder with sequencing, memory or organization. This child with a math- based learning disorder may struggle with memorization and organization of numbers, operation signs and number facts (like $5+5 = 10$) or ($5 \times 5 = 25$). In the area of language, children who experience extra- learning difficulties in language will manifest these signs- poor/oral/ expressive language, poor listening comprehension, poor basic reading skills, poor reading for comprehension and poor written expression. This forms about 74% of all children with LD. These children experience difficulties in all areas (Lerner, 1995; 2006).

A study conducted by Runo (2010) quoting Hittleman indicates that reading difficulties may be manifested in inability to understand the relationship between sounds, letters, words and comprehension problems which may be caused by inability to grasp the meaning of words, phrases and paragraphs. Signs of reading difficulties include problems with letter and word recognition, understanding words and ideas, reading speed and fluency and general vocabulary skills. Further, according to her, reading is a verbal process interrelated with thinking and all the other communication abilities such as listening, speaking and writing. It could be assumed that a child who does not have adequate abilities in thinking, listening, speaking and writing experiences serious reading difficulties.

2.2.2 Classroom Instructional Assessment of Learners with Learning Disabilities

According to Lerner and Kline (2006), there are two major reasons for conducting assessment in special needs education. These are, classification and for planning instruction. To be eligible for special education, a pupil must be identified or classified. The second important reason is to obtain information that can be used to plan ways to help the pupil learn. The closer the connection between educational assessment and instruction, the more effective the teaching process that focuses on curriculum and teaching needed for guiding instruction.

Further findings by Bagnato, Neisworth and Munson (1997) indicate that assessment typically includes an evaluation of cognitive, motor, communication, social-emotional and adaptive development. Assessment on cognitive development involves evaluating child's ability in thinking, reasoning, and planning and concept development. Tasks such as naming body parts, demonstrating place concepts like on, under, between and middle are given to the child. An assessment on motor development involves an evaluation of a child's overall physical development, gross motor skills and fine motor development. A child is engaged in tasks such as jumping, skipping, building a four block design, catching a ball or beanbag, matching and copying shapes. Communication development assessment includes speech and language skills and the abilities to understand and use language. Testers might assess articulation by having children say certain words, repeat numbers or sentences spoken by the tester. Social emotional development assessment is done by recording through observation on how a child relates with other children in class. Lastly, adaptive development assessment involves the testing of child's self-help skills such as

independent toileting, dressing skills, eating skills and generally ability to do things on his own.

2.2.2.1 Informal Classroom-Based Assessment

The information obtained through interviews and observation provides the background for further evaluation of the learner using informal and formal assessment instruments. A wide range of strategies and tools can be used to assess component areas of literacy that include word recognition, vocabulary, composition, studying and writing. One of the most serious problems with existing assessment practices is that they often lead teachers to believe that assessment and evaluation are someone else's job. When teachers rely too much on standardized test results, they may stop using their own good judgment (Valencia and Pearson, 1987). The over reliance on formal test may also cause teachers to discount or become inattentive to the high quality information they themselves have. Teachers need the information they have because it provides evidence about students' ability to perform the actual tasks required in their instructional settings. Teachers gather information from multiple samples on daily basis from different types of texts, tasks and methods that are employed as part of their regular reading activities. The opportunities are great but often go undetected.

Findings by Runo (2010) indicate that curriculum- based assessment uses a direct observation and recording of a learner's performance in the school curriculum. This acts as a basis for determining learner's instructional needs by directly assessing specific curriculum skills and arriving at what to teach. Direct observation can be used to give more information on instructional time, methods and evaluation procedures. Further, findings by Lipson and Wixson (1997) also indicate that observation in the

hands of an experienced evaluator is one of the most powerful assessment tools a teacher can possess. As Pinnell (1991) has argued, teachers need assessment tools that help them become “noticing teachers.” It is a matter of knowing what to attend to than a matter of having indefinite amounts of time to work on one-on-one with students. He further claims that noticing requires not only that teachers engage in careful observations of reading and writing as they occur in their own classrooms but also that they assign importance or significance to what they note. Lipson and Wixson (1997) have also described ways in which conversations, even casual ones, with children can provide useful assessment information.

Classroom-based assessments often are less classroom time-consuming than administering one or more structured or formal assessments. They also allow us to examine learners’ performance using familiar texts forms and tasks. To make good instructional decisions, teachers must come to trust that assessment is a continuous process that takes place within the instructional programme. It should also be designed to increase the ‘goodness’ of the materials and methods of instruction. Teachers should become expert assessors. They should possess abilities to listening, recognizing patterns, concern about an isolated event or behaviour, and connect pieces of information to create an integrated vision of the learner’s knowledge and skill. Information gathered by the teacher (assessor) should become part of a systematic, continuous and well-recognized assessment designed by well-informed assessors. Assessment is viewed as an ongoing process. Each encounter with a child must be seen as an opportunity for interactive assessment. Thus, teaching and testing become integral events. By adapting this stance, we have taken a positive

step towards providing instructional programmes that are responsive to the needs of all children.

2.3.0 Teaching and Learning Strategies and Materials

Teaching, learning strategies and materials are methods and resources used in the lesson by the teacher to ensure that delivery of instruction helps pupil learn. Learners with LD should be explicitly taught to complete a variety of academic tasks in a step by step fashion. Students with learning disabilities differ in terms of their individual strengths, weaknesses and learning style, therefore, no one instruction model can be recommended for all of them (Adams et al., 2003). Teaching and learning strategies to be discussed include, applied behaviour analysis, direct instruction, peer tutoring, cognitive strategy instruction, cooperative teaching and authentic teaching.

2.3.1 Applied Behaviour Analysis Techniques

This has successfully been used to improve the behaviours and academic performance for many children with LD. These techniques rely on the direct, repeated measurement and recording of observable behaviours targeted for change. Environmental events preceding and following these targets are arranged to increase appropriate behaviours and decrease inappropriate behaviours, (Alberto & Troutman, 1999).

2.3.2 Direct Instruction

According to Adam et al., (2003), direct instructions are brisk- paced and include teacher modelling, group and individual responding and student practice. Direct instruction is a systematic scripted form of instruction emphasizing lessons which are

fast paced, sequenced and focused. Further studies by Rosenshine (1986) indicate that the term direct instruction can be used with reference to certain teacher behaviours correlated with academic achievement for children with LD. Like applied behavior analysis direct instruction emphasizes direct measurement and careful sequencing of the component skills necessary to perform a specific task. It focuses on teaching process, offering special educators powerful techniques for improving academic achievements for children with LD. Direct instruction is a highly structured repetitive approach to teaching basic skills to disadvantaged lower grade levels. Teachers use direct instruction, present clear, well-sequenced, highly focused, fast paced lessons. They systematically present many relevant examples of the new skills or concept to be learned, elicit frequent responses from students, taught in small groups and provide immediate corrective feedback. The major components of direct approach include demonstrations, guided practice and feedback.

2.3.3 Cognitive Strategy Instruction

A study by Torgesen (1998) indicates that learners with learning disabilities often fail to transfer the skills and behaviours learned in the classroom to new situations. They also fail to take an active role in their own learning and fail to devise strategies that could help them accomplish tasks more efficiently (Torgesen, 1998). The major emphasis in cognitive strategy instruction is students becoming independent and self-directed where the learners take responsibility for both their own learning and their own behaviour. Strategy instruction combines these powerful teaching techniques of applied behaviour analysis and direct instruction with concern for cognitive process (i.e. those thoughts and feelings, children have about themselves and about their learning). Through strategy training, students are taught how to improve important

behaviour, including attending to seat work tasks, comprehending reading passages, or memorizing the content area.

2.3.4 Peer Tutoring

Peer tutoring involves students learning from each other in ways which are mutually beneficial and involve sharing knowledge, ideas and experience between participants. The emphasis is on the learning process including the emotional support that learners offer each other as much as learning itself (Boud et al., 2001). Children without severe learning disabilities serve as tutors for their counterparts in special education programmes. However, students with mild disabilities can also serve as tutors for younger peers. Fuchs and Fuchs (1998) assert that class-wide peer tutoring can be an additional means to allow all students opportunities for interactions and feedback from one another. According to these authorities, for peer tutoring to be successful, the teacher must remain actively involved.

Studies by Jenkins and Jenkins (1985) indicate that teachers must plan structured lessons for the tutors to follow, train tutors to use interpersonal behaviours that will facilitate learning, and monitor the performance of both tutors and tutees. It is also relatively easy for teachers to implement and is a practical way of providing support for learners with LD. Both the tutor and tutee benefit from the peer tutoring experience, for the tutee; there are gains in academic achievements. The child is able to learn more effectively from a classmate whose thinking process is closer to that of the child than that of the teacher. There are academic gains because the best way to learn something is to teach it to someone else. The tutor also serves as a model of appropriate academic and non-academic behaviour. The relationship between the two

children also provides opportunities for establishing additional social relationships within the classroom.

2.3.5 Cooperative Teaching

Cooperative teaching is meant to improve the academic achievements and social acceptance of students with LD as well as other students with low achievements in inclusive classrooms. These learners learn in groups, rather than competing against one another for grades. Group members share the responsibility of helping each other to learn because the emphasis is on group cooperation. A study by Kagen Spencer (1994) shows that cooperative learning increases pupil retention, pupils develop social skills and helps in improving and raising the learners self esteem.

All group members must participate equally in order for the group to be successful. Cooperative teaching enhances integration into the regular classrooms and enhances instructional time. Further findings by Spencer show that cooperative learning (group work) nurtures or promotes various interpersonal skills, communication and logical thinking. These learners involved in groupwork also display their growth in tolerance, their ability to listen to others and respect each other's views, improvement of self-reliability, independency and ability in making decisions and becoming considerable and helpful towards others. It is important that teachers realize the importance of cooperative learning and enhance the same in their classes.

2.3.6 Authentic Learning

This is a technique that helps students with disabilities generalize and apply what they are learning. Teachers need to construct opportunities for real world problem-solving.

For example, arrangements can be made by teachers for their learners to participate in service learning projects whereby learners with LD read to younger children or assist older citizens in a nursing home. According to US Department of Education community-based instruction affords learners numerous ways to practise essential skills in an authentic context like using money to place an order in a fast food restaurant, or making a purchase in a grocery store. When new skills or abstract concepts are systematically applied to solve real world problems, students' motivation and learning improve. (U.S. Department of Education, 1997).

2.3.7 Teaching and Learning Materials

To help students with LD generalize and apply what they are learning, teachers may need to construct opportunities for real world problem-solving. The teacher should choose teaching materials that help promote active learning of targeted skills, add interest to the lesson, are age appropriate; closely match the students' ability level and those that lead directly to skill acquisition.

A study by Odero (2005) quoting Fisher 1995 on adequacy and utilization of teaching resources for learners with slow learning abilities in Nyanza reveals that adequacy of resources for instruction of learners with learning disabilities can make a difference in their lives. The teacher's first responsibility is to ensure that his class is adequately resourced. Resources should be available as much as possible and they should be sufficient to encourage imaginative use. Availability and adequacy of a wide variety of instructional resources and from many sources can stimulate learning. Learners with LD are known to be less able to grasp abstract concepts when compared with

individuals of normal intelligence. Therefore, the more meaningful and concrete the material, the more the opportunities for LD child to learn.

Teaching resources enable children to gain a sense of pride in their own choices and differences. Giving children objects to handle helps them to listen and attend to and this enables them to remain alert as this acts as another sensory boost. Learners with LD have short attention span and memory problems and therefore, the use of instructional resources is of critical importance in their learning (Fisher, Schumaker, Deshler 1995). Learners with LD require numerous verbal, physical and visual prompts to redirect their attention and encourage their participation in familiar entities and minimize distractive activities such as wiggling in their seats, engaging in inappropriate behaviour, attempting to escape or just gazing around the room. Introducing new concepts and skills while reinforcing using materials will make children learn.

Stoodt (1981) suggests that, teachers can create opportunities for learners to experience success by selecting materials that line with learners' level of ability. Learners who associate pleasure and success in reading will be motivated to read hence learn. When teachers present new material in a decontextualized form, they tend to create a very different setting from what the learners already know. In this, teachers risk undermining learners' intrinsic motivation for learning.

2.3.8 Selection of Teaching and Learning Materials

Teachers are faced with difficulty in making decisions about which teaching materials to select for learners especially those with LD, Smith (1983) discovered that

most teachers often select materials they are most familiar with, have been trained to use, have found available and match with their teaching style. Smith further maintains that the most appropriate materials for a teacher to use with learners who have learning disabilities are those which have logical, hierarchical sequence of instructional objectives, are adaptable to a variety of learning styles, cover the same objectives in a multiple of ways, pretest to determine where teachings should begin, have a built-in evaluation mechanism for determining mastery of instructional objectives and allow learners to proceed at their own rate and skip objectives they have already mastered and have reinforcement activities.

2.3.9 Modification of Teaching and Learning Materials

Students with learning disabilities, sometimes require modifications of materials. For example, the number of problems for seat work can be reduced. If a learner works at a pace much lower than his classmates, he should be allowed to solve fewer problems if at all he is getting them right. If a learner experiences difficulties with division, why not use error analysis, that is, pinpoint what he/she is procedurally causing the same error to occur in several problems. Another type of modification is to change the response mode of the questions. For example, the teacher can change the usual way of teaching spelling tests, that is, pronouncing words orally and having students write them by introducing the use of cloze procedure where the teacher deletes selected letters which must then be filled in by learners.

2.4 Collaboration

According to Friend and Cook (2003), collaboration is an interactive process which enables people with diverse expertise to generate creative solutions to mutually

defined problems. It involves direct interventions that characterize many types of processes and it is based on ongoing participation of more individuals committed to working with each other to achieve a common goal. Through collaboration, two or more individuals interact in a supportive manner that benefits each member, as well as the people they are supporting. The Education Act (1989) entitles children with special needs to full inclusion in the state education system. As more learners are placed in the inclusive setting of the general education classroom, collaboration becomes essential for effective inclusion (Friend & Cook, 2003; Walther-Thomas, Korinek & Mclaughlin, 2000).

Friend and Cook (2003) also maintain that successful collaboration requires mutual goals, voluntary participation, and equality among participants, shared responsibility for participation and decision-making, shared responsibility for outcomes and shared resources. For learners with learning disabilities, partnership between regular teachers and special needs teachers become important as a greater number of learners with learning disabilities are placed in general education classrooms for instruction. Finding ways to facilitate a team effort is necessary for successful inclusion of students with learning disabilities and related disorders.

2.4.1 Roles Played by Teachers in a Collaborative Model

The regular and special education teachers each brings their skills, training and perspectives to the team. Resources are combined to strengthen teaching and learning opportunities, methods, and effectiveness. This enables the teacher to meet the needs of all learners (Dieker & Barnett, 1996). The regular teachers use their skills to instruct learners in curricula dictated by the school system. They bring content

specialization, while the special education teacher provides instruction by adapting and developing materials to match the learning styles, strengths and special needs of each learner. Their collaborative goal is that all learners in their class are provided with appropriate classroom and homework assignments so that each learner with LD participates in the learning process.

2.4.2 Planning for Effective Collaboration

Collaboration involves commitment by the teachers who work together, by school administrators, the school system and community. It involves time, support, resources, monitoring and persistence. Walther-Thomas, Bryant, Land (1996) maintain that major consideration should be made in arranging planning times for co-teachers. Co-planning must take place once a week. Planning must also be ongoing to allow teachers to review progress on a regular basis, make adjustment, evaluate learners and develop strategies to address problems either in discipline or learning. In their studies, they also found that five planning themes were identified by co-teachers who considered themselves to be effective co-planners.

These themes included confidence in partners' skills, design of learning environment that require active involvement, contributions by all persons in creating learning and teaching environment, development of effective routines to facilitate in-depth planning and productivity, creativity, and collaboration overtime. It is important that teachers take collaboration as part of teacher preparation programmes. This begins with the understanding that all teachers will be working with all the learners. Every teacher thus needs to study teaching techniques, subject area(s), disability, individualization, accommodation and skills for collaboration in the classroom.

Walther-Thomas, Bryant, Land (1996) further conducted a study on inclusion and teaming to assess collaboration between general education and special education staff. Improvements were attributed to more teacher time and attention, reduced pupil-teacher ratio and more opportunities for individual assistance.

2.4.3 Activities that Would Promote Co-teaching

Co-teaching occurs when two or more teachers deliver instruction to a diverse group of students in a general education classroom. Both teachers share the teaching and must be ready to accept responsibility. Co-teaching has been likened to a marriage. To be successful, both partners have to make 100% effort (Friend & Bursuck, 2002). Co-teaching would be very successful if these activities would be used, first by having time for co-teaching activities. This is because productive work requires space, time, and the assurance of uninterrupted sessions. Second, recognizing that the skills in co-teaching and collaboration are learned through developmental process, this implies that, co-teachers must go through developmental stages as they learn to understand each other and to work together. Third is the use of coaching strategies that help learners with learning disabilities.

The special education teacher might take the role of the coach, giving instructions or demonstrating a specific skill while the regular classroom teacher learns the skill. The co-teachers then decide on the skill they wish to teach. Lastly, open communication which is the key to co-teaching is encouraged. If problems are allowed to persist without an opportunity for face-to-face communication, dissatisfaction increases and misunderstanding develops. To avert such situations, oral and written communication must be clear. Effective co-teachers are active listeners, they are sensitive to the

contributions and ideas of others and recognize non-verbal messages, they also ask for continuous feedback and they are willing to say they don't know and they also give credit to others where applicable.

2.5 Summary of Literature Review

The literature reviewed indicates that children with learning disabilities are found within all cultures, language groups and nations. These children look normal but they may be unable to do what their peers of the same age are able to do. They experience difficulties in some areas of learning such as writing, reading, spelling, comprehension and arithmetic. Literature reviewed also outlined qualifications of teachers teaching children with LD, identification and assessment of children with LD, classification and characteristics of LD, teaching and learning strategies and materials of LD and finally teachers' collaborative efforts when serving learners with learning disabilities. Existing research data that have been reviewed relate to learners in developed countries. As a result of clear policies and elaborate research activities developed in these countries, there are specific programmes for learners with learning disabilities. It is unfortunate that learning disabilities in developing countries is not well documented. Limited research has been conducted in these countries with the consequences that teachers may not have the knowledge on identification of children with learning disabilities. As a result, this hinders early and appropriate intervention.

Most of the research conducted in Kenya is mainly on causes of LD, prevalence of LD and teacher-parent collaboration in curbing the condition of LD. Considering that LD is regarded as a complex emerging area in the country, teachers may not be well-equipped with proper knowledge of identification of LD and hence do not use those

teaching and learning strategies that would address the needs of these learners. This proposed study is an attempt to analyze teachers' competencies, teaching and learning strategies they utilize to educate learners with LD.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

The aim of the study was to analyze teachers' competencies, teaching and learning strategies teachers to educate learners with LD. This chapter describes research design, study population, sampling technique and sample size, instrumentation, piloting, data collection procedures and methods of analysis that were used in the study.

3.1 Research Design

The study adopted a descriptive design that employed both qualitative and quantitative research measures to identify teaching and learning strategies used by teachers when serving learners with LD. Descriptive design attempts to describe characteristics of subjects or phenomena, opinions, attitudes, preferences and perceptions of persons of interest to the researcher. (Borg 1982). Moreover, a descriptive survey aims at obtaining information from a representative selection of the population and from that sample, the researcher is able to present the findings as being representative of the population as whole. Quantitative data were derived from questionnaires while qualitative data focused on oral questions and gave respondents a chance to state their problems and participate in seeking solutions to these problems.

3.2 Variables

Variables are key ideas that researchers seek to correct information to address the purpose of their studies (Creswell, 2005). Mugenda and Mugenda (2003) describe different classifications of variables such as dependent, independent, intervening,

confounding and antecedent. This study considered the dependent and independent variables.

3.2.1 Dependent Variables

In this study, the dependent variables were improved learning outcomes and high rate of completion.

3.2.2 Independent Variables

Independent variables are those that cause change in the dependent variables (Bless, 1987). The independent variables of this research were identification and assessment of children with LD, qualifications of teachers teaching learners with LD, teaching strategies and materials used by teachers and teachers' collaborative efforts and support provided when educating learners with learning disability.

3.3 Location of the Study

The study was carried out in Thika West District. The district is in Central Province. It is bordered by Ruiru, Gatanga, Gatundu and Thika East districts. Thika West District has 17 public primary schools. Because of the heterogeneous nature of the condition of LD, it was selected for study since it accommodates learners across all cultures and languages. The location of the study was also chosen because of researchers' familiarity and proximity to the schools locations.

3.4 Target Population

Thika West District has 17 primary schools. The schools that were selected for study had 113 teachers and 1350 pupils. The study targeted, classes 1-4 teachers, pupils

with learning disabilities of these classes, and headteachers from 4 public primary schools, namely; Kalimoni, Thiririka, Jomo Kenyatta and Gachororo in the district. The 4 schools were purposively selected because of their accessibility.

3.5 Sampling Techniques and Sample Size

Sampling involves selecting a subset (portion of cases in order to generalize information gathered). A sample is a small part of the large population which represents the larger populations.

3.5.1 Sampling Technique

The researcher purposively selected the schools to be studied within the zone. The schools were purposively selected because they accommodate learners of diverse origin and therefore, data generated would be representative. The headteachers in these schools were also purposively selected in order to provide the required information. Double streamed classes 1-4 were also purposively selected for study because learning disabilities can be identified as early as pre-school years. These learners are also expected to have acquired skills in literacy and numeracy. Thus, identification for intervention was possible.

Teachers who handled learners with LD were also purposively selected because they were instructors of these learners hence in a position to provide rich information required for the study. Four weeks prior to the study, the researcher had a session of 45 minutes with the sampled teachers in each of the 4 schools. The teachers were briefed on identification of learning disabilities using an identification tool (Annex E). This tool contained 5 components of characteristics of LD and the components

included academic disabilities, perceptual motor difficulties, language and speech disorders, difficulties with the thought process, behavioural and effective characteristics. Teachers were supposed to identify learners in their respective classes who portrayed the characteristics. Two learners were then randomly selected from each of the 4 double-streamed classes. All the learners identified had an opportunity to be selected to constitute the sample. This gave a total of 16 learners per school giving a total of 64 learners used in the study.

3.5.2 Sample Size

The sample for the study comprised 4 headteachers, 64 learners from classes 1-4 and 32 teachers (special and regular if any) in the 4 schools (Table 3.1).

Table 3.1: Sample Size

District	Zone	Primary School	Head teacher	Teachers	No. of children	
ThikaWest district	Juja	Jomo Kenyatta	1	8	16	25
		Kalimoni	1	8	16	25
		Gachororo	1	8	16	25
		Thiririka	1	8	16	25
Total	1	4	4	32	64	100

3.6 Research Instruments

Research instruments are tools the researcher use to enable her to gather information from the respondents. For the purpose of this study, the researcher used interview schedules for the headteachers, questionnaires for teachers and observational schedule for the learners and materials. An interview is an appropriate instrument in any study

because all the dimensions of the investigation through probing of participants would be done. An interview was used in order to cover all the dimensions of the investigations through probing the participants. Questionnaires were used to obtain data from the respondents since they offer considerable advantage in the administration. Large number of people were used simultaneously and the respondents were not likely to be manipulated by the researcher since they filled the questionnaires independently. The questionnaire was divided into four sections. Section A contained directory information of the teachers and headteachers and section B, C and D gathered information in line with the objectives of the study. Observation schedule was very useful in the study, the researcher observed pupils' responses during instruction, materials used by teachers and learners' participation during learning.

3.7 Pilot Study

The pilot study was done in St. Paul Primary School Gachororo in Juja zone, Thika West District. The school was selected for pilot study because it consisted of similar characteristics as study schools. The objective of the pilot study was to measure validity and reliability of the research instruments. Another objective was to help determine if teachers and headteachers understood the questions asked. This school was not to be used in the main study. The pilot study helped to find out faults in the study instruments which were corrected by deleting or adding items prior to the main study. Respondents were asked to point out all the questions that were not clearly stated. Piloting helped in refining the checklist containing characteristic of LD to five major components, (Annex E). Initially, the checklist contained many items that were flowing without segmentations and this gave teachers problems when using it as a

tool for identification. The interview schedule for the headteachers was also refined after the researcher realized that very many items had been captured in the teachers questionnaire and that they even suited the teachers not headteachers.

3.7.1 Validity

Validity shows how accurately the data obtained in the study represent the variables (Mugenda & Mugenda, 2003). In this study, the tools were validated during a pilot study, which took place at St Paul Primary School, Juja Zone in Thika West District. One headteacher and 2 teachers who were used in the pilot study helped to clarify the items in the interview schedule and questionnaires. The teachers also advised the researcher to refine the checklist that was to be used by teachers to identify learners with LD. It was flowing without segmentation but after validation, it was categorized into 5 major components.

Colleagues and supervisors also went through the instruments and corrected content validity and language clarity. For example, on teachers questionnaire, questions on collaboration, item number 7, the question was very shallow in achieving objective number 4, which asked whether the headteacher supported collaboration. Part “b” was, therefore, added to that question that required teachers to give their opinions on support they received from the headteachers. Two trained research assistants who were earlier trained by the researcher were subjected to all the tools and asked to answer the questionnaires and respond to the questions in the interview schedule. All instruments were amended as per headteachers, teachers and research assistant’s responses. For example, the teachers assisted the researcher to refine the checklist for identifying learners with LD by putting the characteristics into 5 major components.

3.7.2 Reliability

Reliability is a measure of how consistent the results of a test should be to ensure reliability for the tools. The researcher used test-retest method, in this case, it involved administration of the same instruments twice to the same group of sampled subjects in a span of 10 days time lapse between the first and the second one. Pearson Product Moment Correlation Co-efficient was used to establish reliability. Correlation coefficient of 0.75 was considered adequate to judge reliability of the instruments. According to Mugenda and Mugenda (2003), a correlation co-efficient of 0.8 and above indicated strong correlation between measures. The following steps were followed in the test –retest method:

- i. Selection of an appropriate sample group of subjects.
- ii. Administration of the test to the subjects.
- iii. All the initial conditions were kept constant and the test was administered to the same subjects.
- iv. Finally, a correlation of the scores from both testing periods was calculated.

3.8 Data Collection Procedures

Data were directly collected with the help of two well-trained research assistants. The researcher had to personally carry out lesson observation in order to capture the data needed for the study. It was not possible for the researcher to carry out the lesson observation and at the same time collect data from the other respondents alone. This necessitated the need to train two research assistants to assist in administration of the questionnaires to the teachers and interview some of the headteachers. Before going to the field, the researcher obtained a research permit from the Ministry of Education for authority to carry out the research. Thereafter, the District Education Officer was

contacted before commencement of the main study. A courtesy call was paid to the individual schools to talk to the headteachers and teachers who were briefed on how to identify learners with LD. The research assistants were later introduced to both the headteachers and the teachers. The teachers were assured of anonymity and confidentiality of any information they provided.

3.9 Data Analysis

Kerlinger (1973) defines analysis as categorization, ordering, manipulating and summarizing data to obtain answers to research questions. Data collected from questionnaires, interview and observation schedule were carefully organized and analyzed. Data in this study were analyzed quantitatively and qualitatively. Qualitative analysis involved making inferences and conclusions from teachers' responses from open-ended items in the questionnaires and responses from the interviews. Quantitative data were derived from questionnaires using the Statistical Package for Social Sciences (SPSS). Descriptive statistics for each scale and summary were compiled. Results were presented in form of mean, frequency, percentages and tabulations to show an analysis of teaching and learning strategies used by teachers serving learners with learning disabilities. Information gained through observation was further used to explain results got from the statistical data that were collected and analyzed.

3.10 Logistical and Ethical Considerations

The researcher sought permission from the Ministry of Education (MoE) before collecting data. The researcher also went through the heads of institutions sampled before interacting with the teachers. Consultations were further made with the

teachers concerned on what lessons the researcher would observe. Good rapport was established with all the respondents to ensure that they honestly responded to the questions. They were assured that all information given would be treated with utmost confidentiality. Lastly, the researcher disseminated information gathered during educational forums and seminars.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction

In this chapter, the results of the study are presented and analyzed. This chapter is divided into two main sections. Section one presents the demographic data of the teachers and headteachers from the four schools studied for the purposes of sample description. The second section presents the results of the research questions formulated in the study and thematically discussed. Each research question was tallied with respective questionnaire items from both sampling units and analyzed using frequency and percentages. The summaries of these analyses are presented in tables and figures for interpretation.

4.1 Section One: Demographic Data for Teachers and Headteachers

This section presents demographic data collected from 4 headteachers, 32 teachers and 64 learners with learning disabilities. The total population was 100 respondents.

The demographic data were analyzed alongside variables such as age, gender distribution in schools, teacher pupil-ratio, number of years teachers have taught and numbers of years headteachers have been in administration.

Table 4.1: Demographic data for teachers and headteachers

Variables		Teachers		Head teachers	
		Freq	% age	Freq	% age
Age	35-40 years	15	47	-	-
	40-45	10	31	1	25
	45-50	5	16	1	25
	Over 50	2	6	2	50
	No response	-	-	-	-
	Total	32	100	4	100
Gender distribution in schools	Male	3	9	1	25
	Female	29	91	3	75
	Total	32	100	4	100
Teacher- pupil ratio	40-60 Pupils	28	89		
	Over 60 pupils	4	11		
	Total	32	100		
Number of years teachers have taught	1 year	-	-		
	2 years	-	-		
	3years	4	12		
	Over 4 years	28	88		
	Total	32	100		
Years in administration	1year			-	-
	2 years			-	-
	3 years			-	-
	4 years			-	-
	Over 5 years			4	100
	Total			4	100

Both headteachers and teachers age bracket ranged from 35-40 years to over 50 years as shown in table 4.1 above. Majority of the teachers were between 35-40 years and majority of headteachers were over 50 years. This is an indication that majority of the teachers and headteachers have a wealth of experience in teaching and in administration respectively. Among the 32 teachers who were engaged in the study, 91% (29) were females and 9% (3) were males. The female headteachers comprised 75% and 25% were male. Coincidentally, the 4 schools that were purposively selected, 3 headteachers were females and (1) was a male teacher. This can be an indication that most of the teachers who teach and head the schools in the district are females. Table 4.1 presents the results.

On teacher pupil- ratio, results indicated that majority of the teachers, 89% (28) teach relatively large classes between 40-60 pupils and 4(11%) of the teachers teach over 60 pupils. This can be explained by increase in enrolment following the introduction of free primary education in 2003. The enrolment increased from 5.9-million 2002 to 7.4 million in 2004. This may indicate that teachers may not develop individualized programme for learners with learning disabilities because of the big class sizes. In relation to number of years teachers have taught and number of years headteachers have been in administration, 28 (88%) of the teachers have taught for over 4 years and only 4 (12%) have taught for 3 years. The 4 headteachers who participated in the study have experience of over 5 years This is a clear indication that at least all the headteachers have ample experience in administration. Table 4: 1 summarizes this information and where the table has missing entries shows that a certain variable did not apply for that subject.

4.2 Section Two: Results of the Study that Were Analyzed in Themes

4.2 .1: Professional Qualifications of the Headteachers and Teachers

This first objective sought to establish the professional qualifications for both teachers and headteachers used in the study. Results are presented in table 4.2.

Table 4.2: Professional Qualifications and Areas of Specialization of the Head Teachers and Teachers

		Teachers		Head teachers	
		Freq	% age	Freq	% age
Professional qualifications	P1 teacher	19	58	1	25
	ATSI	3	10	1	25
	Bachelors Education	7	22	1	25
	Diploma in special needs training	3	10	1	25
	Total	32	100	4	100
Areas of specialization	Learning disabilities	1	3	1	25
	Inclusive education	-	-	1	25
	Mentally Challenged	1	3	1	25
	Early childhood education	-	-	1	25
	No specialization	30	94	-	-
Total		32	100	4	100

Table 4.2 above shows that majority of the teachers had attained primary teacher certificate (P1) and this comprised 19 (58 %), bachelors degree comprised 7(22%), both Diploma in special needs training and Approved Teacher One Certificate (ATSI) comprised 3(10%) each. Out of the 4 headteachers used in the study, 25% had bachelors in special needs training, 25% had attained ATSI certificate, 25% attained P1 certificate and 25% had attained diploma in special needs training.

Findings on the areas of specialization as shown in table 4.2 above indicate that 94% (30) of the teachers had not specialized in any disability. Those teachers that had specialized in the area of LD and mentally challenged were only 1 (3%) each. Three headteachers had specialized in different areas of special needs education and (1) in the area of Early Childhood Education. Twenty-five per cent had specialized in the area of LD, another 25% in the area of mentally challenged, another 25 % in the inclusive education and lastly another 25% in the area of early childhood. These head

teachers are hence expected to enhance identification and provide some support. Interestingly, only in one school (Gachororo Primary) where a special unit for mentally challenged had already been established. Further, the fact that only one headteacher and one teacher had specialized in the area of LD shows that there is an inadequate number of teachers trained in LD. This calls for a proposal for improvement in teacher training curriculum so that teachers can be equipped with skills to handle learners with LD. Literature reviewed on professional qualifications for teachers educating learners with LD shows that teachers need to be equipped with appropriate skills and knowledge if they would teach these learners effectively. According to Bureau of labour statistics in USA (2010-2011) teachers already trained can obtain a specific specialization by completing an additional year of training. It is not very clear from the study findings whether teachers who have furthered their studies have done so for promotion purposes or to acquire professional skills necessary so that they can help learners with learning disabilities.

4.2.2 Identification and Classroom Instructional Assessment of Learners with LD

This second objective sought to establish whether teachers have knowledge of identifying and assessing learners with LD.

4.2.2.1 Identification of Learners with LD

Table 4.3: Knowledge of Identifying Children with Learning Disabilities

Teachers' knowledge on identification	Frequency	Percentage (%)
Able to identify	25	78
Not able to identify	7	22
Total	32	100

According to the data summarized in table 4.3 above, 25(78%) of the teachers claimed to have knowledge of identifying pupils with learning disabilities while 7(22%) said they are not able to identify these learners. Headteachers in the study when asked to give their views on challenges experienced by teachers during identification of learners with LD, 50% said that teachers lacked adequate skills and knowledge on identification, 25% said that the large class sizes discouraged the teachers from sparing time for the child with LD. When further asked to give their opinions on what steps should be taken, 75% of the headteachers said that teachers needed to be equipped with skills and knowledge of identification of these learners in order to provide early intervention. This is because some characteristics of LD are not easily identifiable and especially for a teacher who does not know the characteristics, the teacher might assume that the learner is stubborn or lazy. Further, lack of an identification tool in class was a clear indication that though teachers claimed to have knowledge in identification, they did not have adequate knowledge to develop one. Twenty-five percent of headteachers said that workload should be reduced for the teachers to give them ample time to deal with individual learners.

Literature reviewed showed that when a child's problems are recognized early, school failure can be to a large extent be prevented. (Guralnick et al., 2003). Wafula (2010) further asserts that teachers who have ability to identify learners with learning disabilities are able to provide early intervention and individualized attention according to the needs of the learners.

4.2.2.1.1 Information on Checklist Used by Teachers to Identify Learners with LD

Table 4.4: Checklist for Identifying Learners with LD

Characteristics exhibited by the learner		Teachers' findings					
		Yes	%age	No	%age	Not sure	%age
Academic disability	• Reverses letters and numbers when writing	43	67	21	33	-	-
	• Have problems spelling words that show little relationship to the sound.	42	66	21	33	1	1
	• Unable to apply skills learned in reading and arithmetic.	44	69	17	27	3	4
Perceptual motor-difficulties	• Poor visual perception	27	42	26	41	12	17
	• Gross motor awkwardness or clumsiness	29	45	26	41	9	14
	• Only uses one hand or side of the body	35	55	24	38	5	7
Language and speech disorder	• Distorted speech, omits or adds sound	50	78	12	19	2	3
	• Slow oral delivery	50	78	11	17	3	5
	• Poor sentence structure	42	66	20	31	2	3
Difficulties with thought process	• Takes time to organize thought before responding	41	64	14	22	9	14
	• Unable to pay attention	27	42	24	38	13	20
	• Unable to respond to in orderly version	31	48	16	25	13	27
Behaviour and effective characteristic	• Excessive body or verbal activity	52	81	9	14	3	5
	• Rather lethargic and non-active(hypoactive)	34	53	24	38	6	9
	• Easily disturbed by noise	28	44	20	31	16	25

Source: (Kirk, Gallagher, Anastasiow2003)

Table 4.4 above presents a summary of teachers' findings on those characteristics that were identified, not identified and the characteristics the teachers were not sure of. Identification was done under five components with the purpose of selecting learners with LD. On the academic component, as shown in table 4.3, out of 64 learners used in the study, 43(67%) reverse letters and numbers when writing and 21(33%) do not. Forty two (66%) have problems spelling words that show little or no relationship and 21(33%) do not have problems that show little relationship. Lastly, those learners who were unable to apply skills learned in reading and arithmetic were 44 (69%) and those who could be comprised 17(27%). Regarding perceptual motor difficulties, learners with poor visual perception were 27(42%) and learners who did not have poor visual perception were 26(41%). Learners with gross motor awkwardness comprised 29(45%) and those who did not manifest the characteristics were 26(41%). Learners who only used one hand or one side of the body were 35(55%) and those who did not manifest the characteristic were 24(38%).

Findings on language and speech disorder showed that learners who have distorted speech, omit or add sound comprised 50(78%) and those who did not comprised 12(19%). Learners who showed slow oral delivery comprised 50(78%) and those who did not show these characteristics comprised 11(17%). Lastly, learners who had poor sentence structure comprised 42(66%) and those who did not show these characteristics comprised 20(31%). Further findings on difficulties with thought process indicated that 41(64%) of the learners take time to organize thought before responding in orderly manner, while 14(22%) do not show the characteristic. Twenty seven (42%) were unable to pay attention while 24(38%) manifested the characteristics. Lastly, learners that were unable to respond in orderly version

comprised 31(48%) and those learners who were able comprised 25%. Findings on behaviour and effective characteristics indicated that learners who portrayed excessive body or verbal activity during instruction comprised 52(81%) while 9(14%) did not manifest the characteristics. Learners who showed that they were rather lethargic and hypoactive comprised 34(53%) and those that did not show the characteristics comprised 24(38%). Lastly, learners who showed that they are easily disturbed by noise comprised 28(44%) and those who did not manifest the characteristic comprised 31% (20).

Though teachers claimed to have knowledge of identifying learners with LD, the researcher observed that they did not have any identification tool. This could be why they were not able to establish whether certain characteristics existed in children and thus indicated that they were not sure. This is an indication that if simple identification tools would be introduced to the teachers, they would perfect their skills in identification and establish the specific skill deficits learners with LD have and provide appropriate intervention. Findings according to Kavare, Forness and Bender, (1988) indicate that learning disabilities are due to something wrong with the child's brain or perceptual systems, neurological dysfunction, disturbance in perceptual motor function and imbalance of intelligence abilities. This neurological dysfunction leads to academic disability that manifest itself in reading, writing, comprehension, memory and attention disorders, this calls for early identification of the skill deficit in the learner using appropriate identification tool so that early intervention is done. Teachers' findings on characteristics of LD they identified, not identified and those they were not sure are presented in table 4.4 above.

4.2.2.2 Classroom Instructional Assessment of Learners with Learning

Disabilities

Objective two further sought to establish whether teachers were able to assess learners with LD during classroom instruction. Results are presented in table 4.5.

Table 4.5: Classroom instructional assessment of learners with learning disabilities

Assessment of learners with LD	Frequency	Percentage (%)
Ever assess learners	31	97
Never assess learners with LD	1	3
Total	32	100

Out of the 32 teachers used in the study, table 4.5 above shows that 31(97%), have ever assessed learners with learning disabilities, while only 1(3%) have never assessed them. This assessment is done through individual teacher-made test, observation and an already prepared test. The high percentage of teachers who assess these learners is an indication that learners with learning disabilities are not neglected when it comes to assessment of learners and therefore, teachers are able to establish their weaknesses and remediate using appropriate teaching and learning strategies. Literature reviewed indicated that the closer the connection between the educational assessment and instruction, the more effective the teaching process. Lerner et al., (2006).

4.2.2.2.1 Tools used for Classroom Instructional Assessment

Figure 4.1: Tools Used for Classroom Instructional Assessment

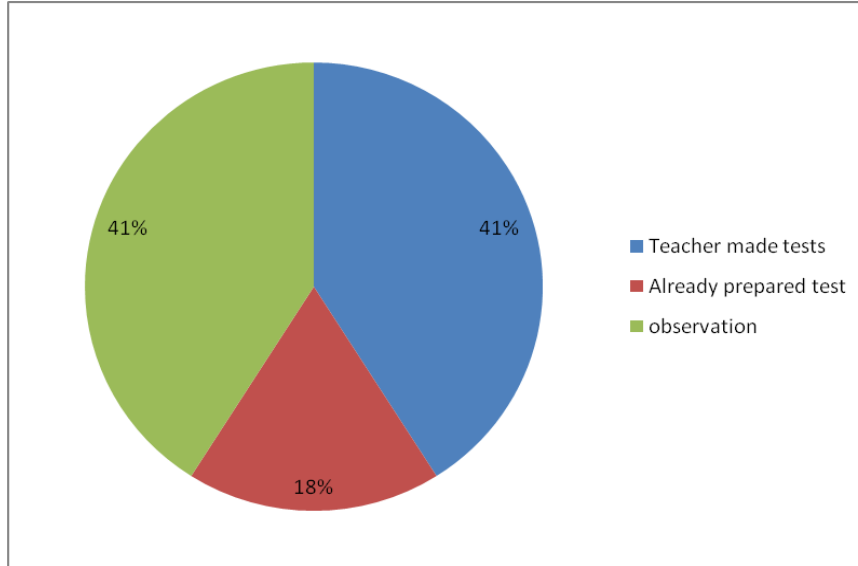


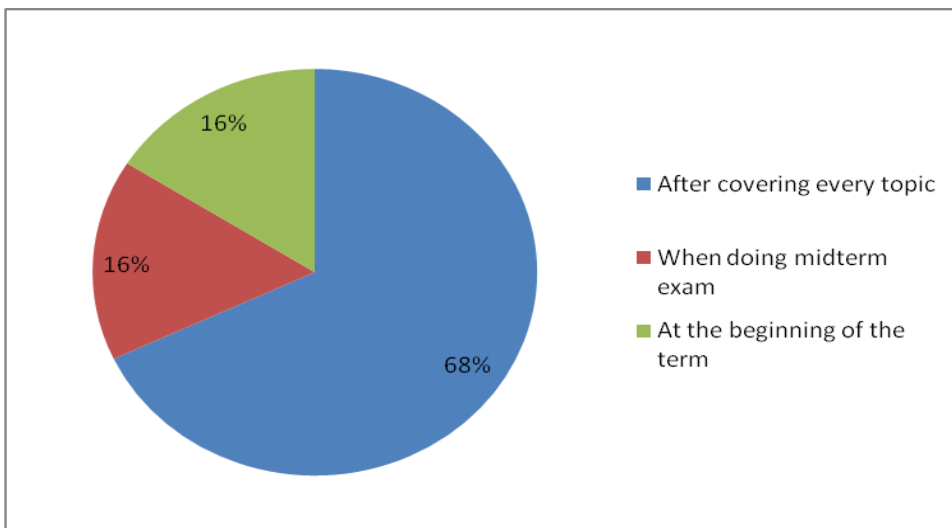
Figure 4.1 shows the tools used for classroom instructional assessment by teachers which were teachers made test comprised 13(41%) and already prepared test which are bought by school administration and comprised 6(18%). The study further found that 13(41%) assess learners through observation. It is important that teachers establish the learners' weak areas so that the skills deficit in the learner can be addressed. Interestingly, none of the teachers had kept any observation checklist in class. Pinnel (1999) has argued that teachers need assessment tools that help them become 'noticing teachers, it is a matter of knowing what to attend to than a matter of having indefinite amount of time to work on one-on -one. Teachers should assign importance on what they note. Lipson (1997) further says that casual conversations with children can also provide useful assessment information. Further findings through lesson observation indicated that 80% of the teachers gave immediate feedback while 20% did not. Further findings indicated that 53% of the teachers used

assessment results for remediation, 39% used the results to improve teaching strategies among other reasons.

4.2.2.2.2 When Learners with Learning Disabilities are Assessed

Teachers were asked to indicate when they assess learners with learning disabilities and results are indicated in figure 4.2.

Figure 4.2: When learners are assessed



Out of 32 teachers used in the study, 22(68%) said that they assess them after covering every topic and those who assess them when they do mid-term exams and at the beginning of the term comprised 5(16%) each. This type of assessment is meant to help the teachers make instructional decisions. The teachers' responses agree with literature reviewed because according to Lerner (1997), assessment information obtained can be used to plan ways to help a pupil learn. According to her, the closer the connection between educational assessment and instruction, the more effective the instruction. Further findings by Lipson (1997) indicate that classroom-based assessments are less classroom time-consuming and they allow teachers to examine

learners' performance using familiar text forms and tasks and this enables them to make good instructional decisions. Teachers must come to trust that assessment is a continuous process that takes place within the instructional programme and should be designed to improve teaching methods and materials.

4.2.2.2.3 Perception of Teachers towards Classroom Instructional Assessment

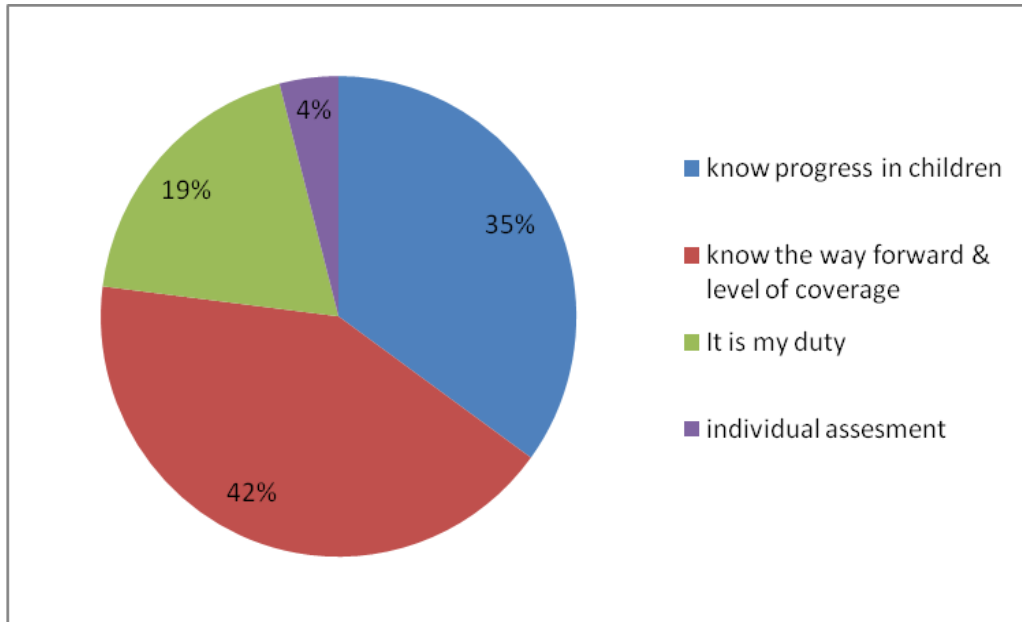
Table 4.6: Perception of teachers towards classroom instructional assessment

Perception of teachers	Frequency	Percentage (%)
Other teachers responsibility	5	16
Own responsibility	27	84
Total	32	100

Table 4.6 indicates teachers' perception towards assessment which is presented in frequency and percentages. 27(84%) of the teachers felt that it was their own responsibility assessing learners and 5(16%) of the teachers felt that it was someone else's responsibility. This is very encouraging because it is an indication that majority of the teachers handling children with LD have positive attitudes towards the learners and can help them realize their full potential. Further, teachers who view assessment as their own responsibility say that they are able to establish the learner's weaknesses and help them.

4.2.2.2.4 Opinions of Teachers on Classroom Instructional Assessment

Figure 4.3: Opinions of teachers on classroom instructional assessment



Teachers who view assessment as their own responsibility were further asked to give their own opinions why assessment was their own responsibility and 42 % said that it helps them to know the way forward and the level of coverage. Thirty-five per cent (35%) said that it helps them to know the progress of the children and 19% felt that it is generally their duty to do assessment among other responses. This is summarized in Figure 4.3 above. However, none of the teachers seemed to have knowledge in assessing and evaluating cognitive development (Thinking, reasoning and concept development) assessment on motor development (gross and fine motor skills), assessment (social interactions) and social emotional development assessment (child help skills). This knowledge is very vital when identifying learners with LD for early intervention.

4.2.2.2.5 Usefulness of Classroom Instructional Assessment to Teachers

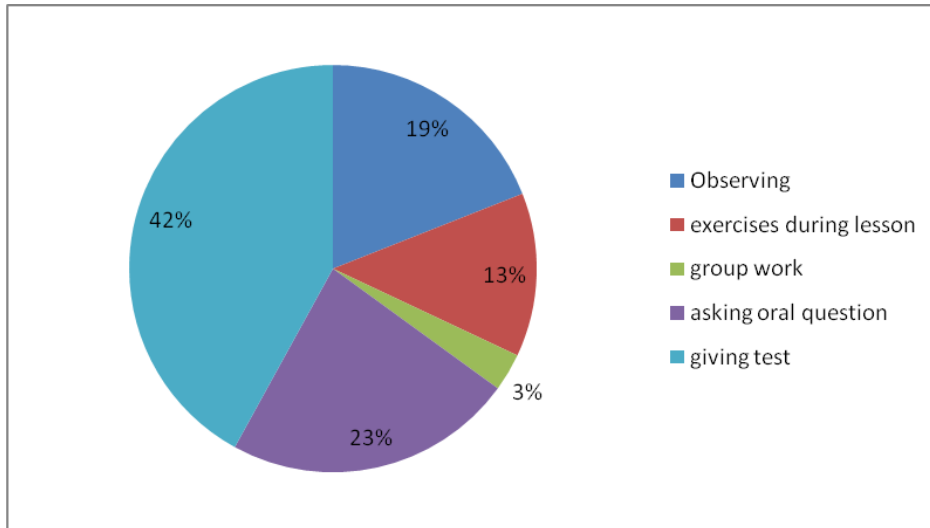
Table 4.7: Usefulness of classroom instructional assessment to teachers

	Frequency	Percentage
Feels assessment is helpful	29	91
Feels assessment is not helpful	3	9
Total	32	100

As summarized in Table 4.7, 29(91%) of the teachers said that assessment is very helpful to them while only 3(9%) felt that assessment is not useful. Teachers who view assessment being useful said that they are able to establish whether learners have understood the topic clearly and also identify slow and weak learners and give them special attention they require. Generally, assessment enables the teacher to design programmes that are responsive to the needs of learners with LD. The responses by majority of the teachers concur with Choate et al., (1992) who assert that direct observation which is a method of assessment enables the teacher to record the learners' performance in school curriculum as a basis for determining learners' instructional needs. This is done by assessing directly specific curriculum skills and arriving at what to teach. He further says that assessment information is used to formulate instructional goals and objectives to decide on placement and to make specific plans for teaching.

4.2.2.2.6 Classroom Instructional Assessment Methods Used by Teachers

Figure 4.4: Classroom instructional assessment methods used by teachers



Assessment methods that most teachers use to assess learners with learning disabilities include giving test which comprised 13(42%), asking the learners oral questions which comprised 7(23%) among other responses as illustrated in Figure 4.4 above. This is an indication that learners with learning disabilities are not left out. This agrees with Valencia et al., (1987), who argue that when teachers rely on standardized test results, they may stop using their own good judgment and become inattentive to high quality information they may themselves have. Teachers gather information on daily basis from different types of texts, tasks and methods that are employed as part of their regular learning activities. Teachers should use observation as one of the methods in order to gather information about learners so that they can make right instructional decisions.

4.3 Teaching and Learning Strategies and Materials

The third objective sought to establish teaching and learning strategies used. Both teachers and headteachers gave several views, suggestions in the following areas, specific teaching and learning methods they used, difficulties encountered by teachers when helping learners with LD, views on research on current trends in LD instruction, whether they need in-service training to acquire LD instructional skills, suggestions on additional assistance they needed and whether headteachers organized seminars and workshops for teachers in order to upgrade their skills. Results are analyzed below.

4.3.1 Teaching and Learning Methods Used

Table 4.8: Teaching and learning methods used by teachers

Teaching/ Learning methods	Frequency	Percentage (%)
Individual teaching	7	22
Peer teaching	3	9
Group teaching	5	16
Remedial teaching	2	6
Creating extra time with the learner	3	9
Story telling and drama	2	6
Do some question on the black board	1	3
Phonics to teach reading	4	13
Demonstration	4	13
Task analysis	1	3
Total	32	100

Teachers were asked to express their views on teaching and learning methods they used to help learners with learning disabilities. Among the responses given, 7(22%) said that they teach learners as individuals, 5(16%) said they use group teaching, 6% said they used remedial teaching among other responses. The teachers' responses indicated that some of what they referred to as teaching methods may not actually be

teaching and learning method. This is because a teacher may individualize attention but if the right method of teaching is not used, learning cannot take place. For example, learners with LD experience problems when tackling complex tasks. These tasks need to be broken down to simple tasks and taught in step by step fashion. Literature reviewed indicated that there are very powerful strategies that can be used to help children with LD. For example, direct instruction is highly structured as a repetitive strategy in teaching basic skills to disadvantaged lower grade levels. It includes demonstrations, guided practice and giving feedback Rosenshine (1976). He further asserts that teachers use direct instruction, present clear, well-sequenced and highly focused lessons. According to him, many relevant examples are presented to teach new skills and this greatly helps learners with LD. Other teaching and learning strategies that have been reviewed include cooperative teaching, authentic learning, cognitive strategy instruction among other strategies. Table 4.8 presents the results.

4.3.1.1 Difficulties Encountered by Teachers when Teaching Learners with

Learning Disabilities

Table 4.9: Difficulties encountered when teaching learners with learning disabilities

Difficulties encountered	Teachers views		Headteachers' views	
	Frequency	Percentage (%)	Freq	Percentage
Lack of time/ time consumption	17	53	1	25
They are slow	8	25	-	-
Lack of relevant teaching skills	7	22	1	25
inadequate materials		-	2	50
Total	32	100	4	100

Table 4.9 above shows that out of the 32 teachers and 4 headteachers who gave their responses on difficulties teachers encountered teaching learners with learning

disabilities, 17(53%) and 25% of the teachers and headteachers respectively said that they lacked time to teach since a lot of time is needed in order to cope with the speed of the learners. Twenty-five percent of the teachers said that learners are slow and may not cope with their speed in class. From the lesson observation, it was also found that 91% (29) of the learners were not able to complete given tasks while only 9% attempted to finish. This is an indication that learners with LD require a teacher who understands them and is ready to move with their speed. Twenty-five per cent 25% of the teachers said that they lacked relevant teaching skills to handle the learners while 25% of the head teachers said the same. This was confirmed through lesson observation because majority of the teachers, (55%) taught learners as a whole class, 25% were organized as groups and 20% as individuals. Further findings through lesson observation showed that 25(77%) of the learners did not raise up their hands while only 23% did. It is very unfortunate because the teachers only engaged only those learners who raised their hands in learning activities. Learners with slow oral delivery were observed to be 51% (16) while those that were a bit fast in self-expression were found to be only 49%. On lack of adequacy of teaching materials, 3% of the teachers said materials were not adequate and 50% of the headteachers said the same. This is an indication that a child with LD is likely to move on to the next level with her difficulties without being identified and hence not addressed.

4.3.1.2 Further Teachers' Views on Teaching and Learning Strategies

Table 4.10: Views on research on current trends, whether teachers are equipped with skills and knowledge, and whether they needed in-service training

Further views on teaching and learning strategies		Frequency	Percentage
Research on current trends	Read from internet and other sources	10	31
	Do not read from internet and other sources	22	69
	Total	32	100
Equipped with skills and knowledge	Was equipped	12	38
	Not equipped	20	62
	Total	32	100
Need for in-service training	Need for in-service training	30	97
	Do not need in-service training	2	3
Total		32	100

Out of the 32 teachers used in the study, when asked whether they carry any research on current trends on LD instruction, 10(31%) of the teachers said they sought information from the internet and other sources in order to equip themselves with the latest teaching and learning strategies to help learners with learning disabilities. Twenty two (69 %) do not update themselves with the latest teaching and learning strategies from the internet. This is an indication that most teachers may not have latest knowledge in LD instruction and they should be encouraged to do so. Teachers need to access both locally and international documentation. They should read about the experiences of other teachers working in similar contexts. This will help teachers reflect upon their own experiences and gain confidence to try out new ideas. Results are summarized in table 4.10 above.

Teachers were further asked to say whether they were equipped with skills and knowledge on how to teach learners with learning disabilities during their training. Sixty-two per cent of the teachers said that they were not adequately equipped while 38% said that they were. The small percentage indicated that training curriculum does not adequately address the area of LD. It is important that this is taken seriously so that learners with LD do not continue suffering on the hands of teachers who teach learners with LD. Out of 32 teachers used in the study, 97% (30) of the teachers felt that they needed in-service training on how to instruct learners with learning disabilities. Three percent of the teachers felt they did not need the training. This shows that a high percentage of teachers felt inadequately prepared to handle learners with learning disabilities. It is of paramount importance that teachers be in in-serviced so that they can be equipped with skills in order help the child. Results are presented in table 4.10 above.

4.3.1.2.1 Additional Assistance Teachers Need in Order to Help Learners with LD

Table 4.11: Additional assistance teachers need in order to help learners with LD

Assistance needed by teachers	Frequency	Percentage
Be provided with audio-visual aids	2	6
Adding valid resources	5	16
Extra time	4	13
Resource person	2	6
Provision of teaching guidelines	4	13
Seminars	4	13
More training	8	24
Parents to help children at home	1	3
Refresher courses	1	3
Manageable class size	1	3
Total	32	100

Teachers were asked to suggest additional assistance they needed in order to help learners with learning disabilities. Twenty-four per cent said that they needed more training, 16% said that they needed more valid learning resources, 13% suggested that they needed extra time to handle learners with LD among other responses. Table 4.11 summarizes the results. This is an indication that teachers are willing to assist learners with learning disabilities so long as they get necessary support.

4.3.1.3 Organizing Seminars and Workshops for Upgrading Teaching Skills

Table 4.12: Organizing seminars and workshops for upgrading teaching skills

Seminars and workshops for upgrading teaching skills	Frequency	Percentage
Organize seminars	1	25
Do not organize seminars	3	75
Total	4	100

Table 4.12 above shows that only 25 % of the headteachers organize seminars and workshops that enable teachers to acquire skills and knowledge on how to instruct learners with learning disabilities, while 75 % of them said they did not organize. This calls for a need to sensitize all head teachers on the need to organize seminars for teachers. Seminars and workshops will enable teachers to share their experiences of handling learners with LD and also acquire modern teaching skills.

4.3.2 Teaching and Learning Materials

The third objective further sought to establish the teaching and learning materials used by teachers. The following views and suggestions were analyzed.

Table 4.13: Teaching and learning materials and use of the materials by teachers

		Frequency	Percentage
Teaching and Learning Materials	Supplementary books	5	16
	Charts and maps	16	50
	Visual aids	3	9
	Pictures and flashcards	3	9
	Locally available materials	5	16
	Total	32	100
Usage of teaching and learning materials	Same materials	18	57
	Variety of materials	12	43
	Total	32	100

Table 4.13 above presents results on teaching and learning materials and use of materials by teachers. Out of 32 teachers used in the study, 50% indicated that they used charts and maps as instructional materials to help learners with learning disabilities, 16% used supplementary books and 9% used visual aids among others responses. The use of a variety of materials by the teacher agrees with literature reviewed because according to Fisher 1995, it is the responsibility of the teacher to ensure that their classes are adequately resourced. Adequacy of teaching materials stimulates learning and encourages imaginative use. Further studies by Torgesen (1998) indicated that practical approach to learning would help the learners with LD. This is because these learners are less able to grasp abstract concepts since their memory is impaired. The practical approach would be made possible through provision of variety of materials for learners to manipulate and this acts as a memory boost. Table 4.13 above shows that on usage of materials during remediation of learners with learning disabilities, 18(57%) of the teachers use same materials during the normal teaching while 43% (14) use a variety of materials. Variation of materials is of paramount importance when it comes to teaching children with learning

disabilities because individual differences will be catered for. Moreover learners with LD require numerous verbal, physical and visual prompts to redirect their attention and encourage participation, minimize distractive activities or just gazing around.

4.3.2.1 Reasons for Selecting Teaching Materials

Figure 4.5: Reasons for selecting materials for teaching

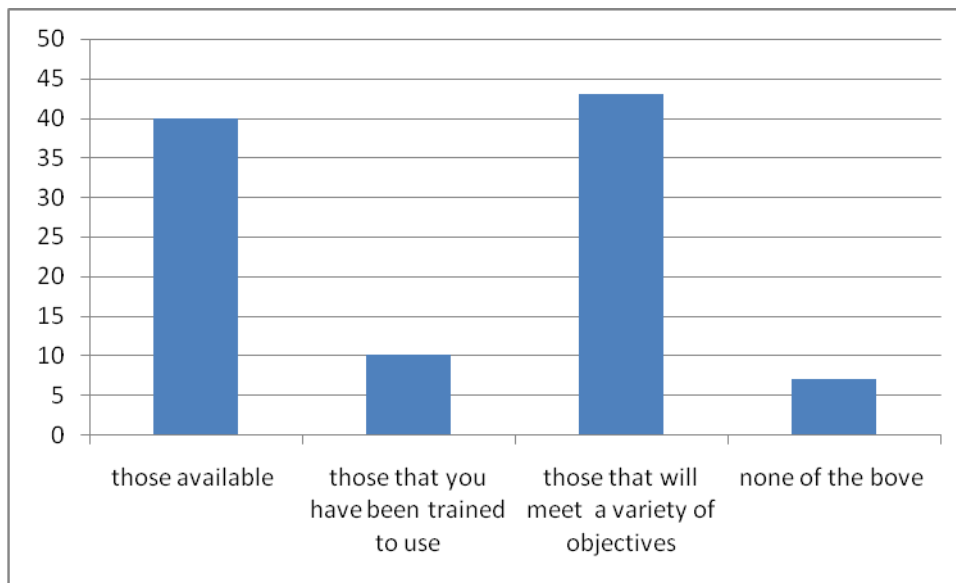


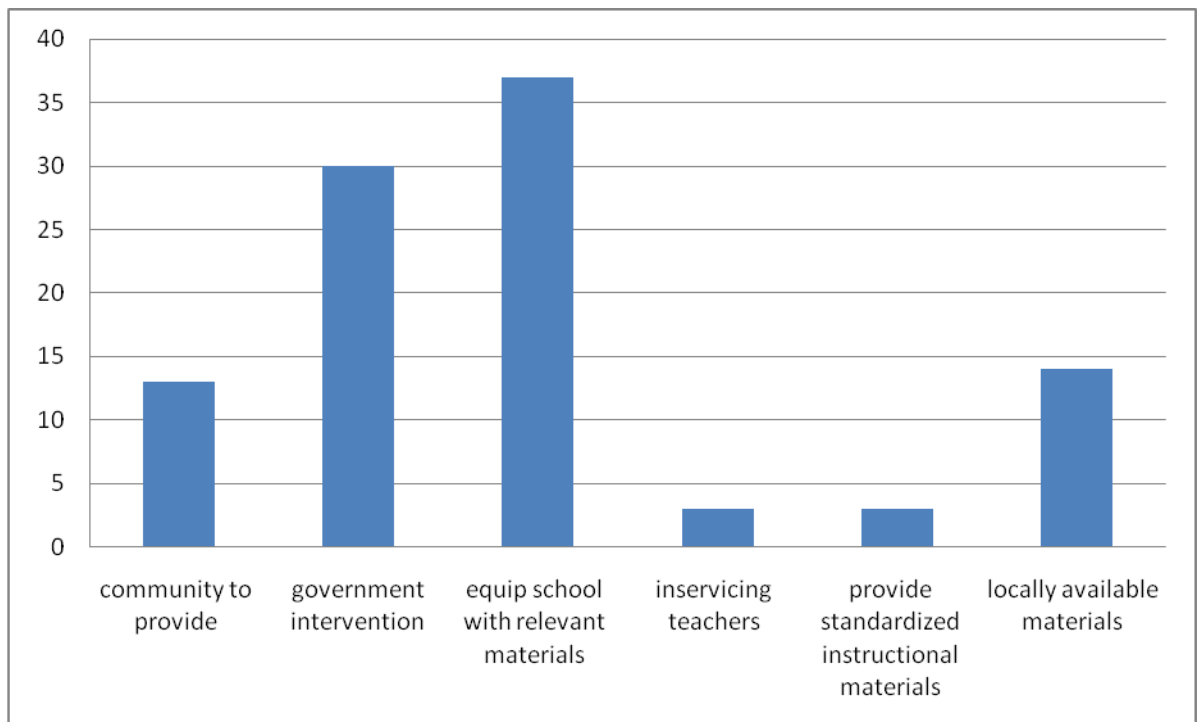
Figure 4.5 above shows the responses given when teachers were asked to give reasons for selecting teaching and learning materials. Forty-three per cent of the teachers said that they select materials that meet a variety of objectives, 40% said that they rely on those materials that were available, 10 % said that they use those materials they were trained to use and 7% had nothing to say. Some of these findings agree with literature reviewed because according to Smith (1983), teachers often select materials they have been trained to use, those that are available and match with their teaching style. However, it is important that teachers select materials that help promote active learning of targeted skills, add interest to the lesson, are age appropriate, closely match the student ability level and those that lead directly to the skill acquisition.

4.3.2.2 Adequacy of Teaching and Learning Materials

Out of 32 teachers, 31(96%) felt that the teaching materials available are not adequate to teach learners with learning disabilities. The teaching materials are important in that for teachers to be effective in their work, they need adequate materials to cater for the unique needs of learners with learning disabilities. According to Fisher (1995), adequacy of teaching resources for teaching learners with LD can encourage imaginative thinking and make children learn. Adequate and modified materials in a classroom will promote active learning of targeted skills and add interest to the lesson.

4.3.2.3 Recommendations for Addressing Inadequacy of Teaching and Learning Materials

Figure 4.6: Recommendations for addressing inadequacy of teaching materials



The researcher sought to establish what recommendations teachers would make to address inadequacy of teaching materials. Among the responses given, 37% said that

schools should be equipped with relevant teaching materials, 30% of the teachers felt that the government should intervene by allocating adequate funds for the provision of materials among other responses. Figure 4.6 summarizes the results. Teachers' responses agree with literature reviewed that indicate that adequate teaching resources enable children to gain a sense of pride in their own choices. When children are given materials to handle, they attend to them, remain alert and this acts as another sensory boost, Fisher et al., (1995).

4.3.2.4 Challenges Experienced by Headteachers While Providing Teaching

Materials

Table 4.14: Challenges experienced by headteachers when providing materials for learners with LD

Challenges experienced when providing teaching materials	Frequency	Percentage
Costly materials	3	75
unavailability of materials	1	25
Total	4	100

As the researcher sought to establish the challenges headteachers encounter while providing teaching and learning materials, 75 % of the headteachers said they incur high cost while 25% said these materials are not available. This is outlined in Table 4.14 and the implication could be that early intervention may not be possible due to shortage of funds and more funding should be done.

4.4 Collaboration

The fourth objective sought to establish the collaborative structure and support that have been put in place when educating learners with LD. Results are presented under the following headings: Availability of resource person, knowledge in collaboration, areas of collaboration, challenges experienced during collaboration, areas of collaboration, views of teachers and headteachers towards collaboration and lastly whether they would need any training to learn the skills in collaboration.

4.4.1 Availability of Resource Persons, Help Received from the Resource Person and Knowledge on Collaboration

Table 4.15: Availability of resource person, help received and whether teachers have knowledge in collaboration.

		Frequency	Percentage
Availability of resource persons	Have resource person	20	63
	Do not have resource person	11	37
	Total	32	100
Help Received	Adequate	4	13
	Average	12	37
	Little help	4	13
	No help at all	12	37
	Total	32	100
Knowledge on collaboration	Have knowledge on collaboration	21	66
	Do not have knowledge on collaboration	12	34
Total		32	100

From table 4.15 above, results indicated that out of 32 teachers used in the study, 20(63%) of the teachers have resource persons whom they partner with in addressing the problems they encounter when teaching learners with learning disabilities, 37% (12) of the teachers do not have resource persons. This is an indication that collaboration is evident in schools. It is also in line with literature reviewed and

according to Friend et al. (2003), collaboration is, an interactive process which enables people with diverse to expertise generate creative solution to mutually defined problems. With the presence of resource persons in schools, learners with learning disabilities are likely to benefit from combined efforts. When teachers were asked to rate the type of help they received from the resource persons as they worked together, the study found that there was some spirit of collaboration in the field. Thirty-eight per cent of the teachers received average help, 16% received adequate help, another 16% received little help and 30% got no help at all. Learning disability being a condition with various characteristics that are not easily identifiable, its important that teachers work together seeking help from experts in the area of LD.

Teachers were further asked whether they had any knowledge in collaboration, 66% (21) of the respondents said that they had knowledge while 34% (11) said that they did not have any knowledge at all. Table 4.15 summarizes this information. This is an indication that some teachers may not work together with other teachers not because they are not willing but probably due to lack of knowledge in collaboration. However, teachers need to understand that skills in co-teaching are learned through developmental process, co-teachers have to go through developmental stages as they learn to understand each other and work together, Friend et al., (2003).

4.4.2 Challenges Experienced by Teachers During Collaboration

Table 4.16: Challenges faced by teachers during collaboration

Challenges	Frequency	Percentage (%)
Less materials	4	12
Inadequate time	6	19
Poor participation of some teachers	9	28
Unable to deliver to pupil	4	12
Lack of knowledge and skills on collaboration	5	17
Lack of support from head teacher	4	12
Total	32	100

Table 4.16 summarizes results of the challenges teachers encountered during collaboration as they worked together when teaching learners with disabilities. The teachers gave very rich information that would greatly enhance partnership among teachers in schools. Out of 32 teachers, 9(28%) said that poor participation among teachers, 6(19%) said that they lacked adequate time and 4(12%) said that they lacked support from head teachers among other challenges. According to Walter-Thomas (1966), major considerations need to be made in arranging planning time for co-teachers. Time should be availed for teachers to plan together, evaluate learners on regular basis and develop strategies to address the learners' problems. It is important that teachers take collaboration as part of teacher preparation programme. A further study by Walter-Thomas (1966) on inclusion and teaming to assess collaboration between general education and special education staff showed that improvement were attributed more to teacher's time and attention, reduced pupil-teacher ratio and more opportunities for individual assistance. The headteachers should thus support teachers so that they can work as partners.

4.4.3 Environment for Collaboration

The researcher sought to find out if environment in schools is conducive for collaboration. Eighteen (56%) of the teachers felt that the environment in their schools was conducive while 44% (14) felt that it was not. This is an indication that environmental conditions need to be addressed in order to enhance collaboration. Literature reviewed according to Walter-Thomas et al., (1966), indicate that one of the themes identified by co-teachers who considered themselves as effective co-planners was to design a learning environment that led to active involvement. It is thus necessary for all the stakeholders to ensure that school environment is conducive to promote partnership among teachers.

4.4.4 Views of Teachers and Headteachers Towards Collaboration

Out of 32 teachers used in the study, 25(79%) viewed collaboration as their own responsibility while 7(21%) felt that it was a bother. For collaboration to be successful according to literature reviewed, voluntary participation, mutual goals, equality among participants, shared responsibility for participation are mandatory. Teachers should thus view collaboration as their own responsibility. Out of the 4 head teachers interviewed, 50% felt that it was their own responsibility while the other half felt that it was also a bother. Teachers who found collaboration as a bother gave different views.

Table 4.17: Reasons for not collaborating

Reasons for not collaborating	Frequency	Percentage (%)
Lack of time	3	9
Teachers not willing to work together	4	13
Teachers refuse to share ideas	3	9
Wide syllabus	3	9
Limited knowledge	8	26
No response	11	34
Total	32	100

Out of 32 teachers used in the study, 26% said that they had limited skills in collaboration, 13% said that teachers were not willing to work together among other reasons. Table 4.17 summarizes the results. This may imply that teachers may not be aware of the major role played by collaboration when teaching learners with learning disabilities. This calls for a need to enhance collaboration in schools.

4.4.5 Areas of Collaboration

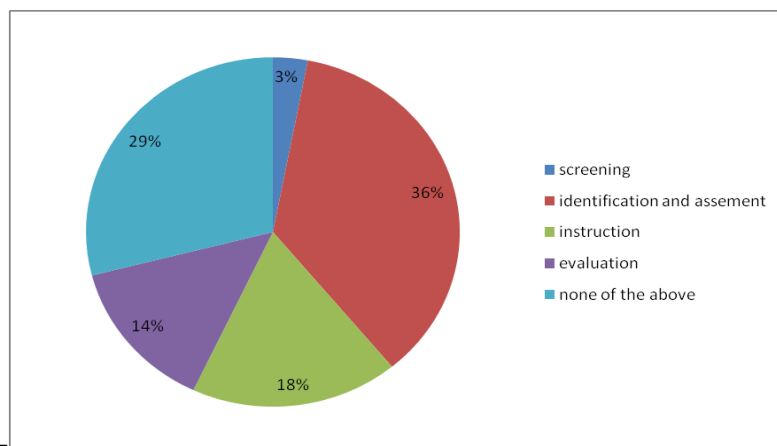
Figure 4.7: Areas that teachers work together when teaching children with disabilities

Figure 4.7 shows the results of the areas teachers worked together during collaboration. Out of the 32 teachers used in the study, 12(36%) said that they worked together in identification and assessment, 18 % during instruction among other responses. This is an indication that at least teachers have an idea of core areas they are supposed to work together and share expertise in order to help learners with diverse needs.

4.4.6 Support from Headteachers

Table 4.18: Support given

Support given by head teachers	Frequency	Percentage
Materials are provided	10	31
Resource persons from outside invited	5	16
Encouraged to get assistance from skilled teachers	7	22
Teamwork encouraged	2	6
Encouraged to have positive attitude towards collaboration	8	25
Total	32	100

Out of 32 teachers who were asked to give their views on what support they got from head teachers, 10(31%) said that they were provided with learning materials, and 7(22%) said that they were encouraged to get assistance from special education teachers, 8(25%) said they were encouraged to have positive attitude towards collaboration among other responses. Table 4.18 above summarizes the results.

4.4.7 Views of Teachers and Headteachers on Need for More Training on collaboration

Table 4.19: views of teachers and headteachers on more training in collaboration

Views of teachers and head teachers	Teachers views		Head teachers views	
	Freq	%	Freq	%
Need more training	26	97	3	75
Do not need more training	6	3	1	25
Total	32	100	4	100

Table 4.19 above shows the teachers and head teachers views on need for more training in collaboration, majority of the teachers 31(97%) felt that it was necessary while 1(3%) expressed satisfaction with the collaborative skills they already have. Majority of the head teachers as well (75%) felt that training was necessary while only 25% felt that the teachers did not need the training. Training now and then is important since the teachers will learn new skills and ways to handle learners with learning disabilities. The teachers' views are in agreement with Dieker et al., (1996), who according to them, the regular and special education teachers each bring their perspectives, skills and training to the team, resources are combined strengthening teaching and learning opportunities. This would be possible if teachers would keep on updating their knowledge so that they can acquire modern collaborative skills.

4.4.8 Challenges Faced by Headteachers When Supporting Collaboration

Challenges encountered by headteachers while encouraging teachers to collaborate was mainly lack of interest by teachers while others were reluctant to work as a team. All headteachers have knowledge and skills in collaboration and therefore can promote partnership among teachers in their respective schools.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

The aim of the study was to analyze teachers' competences and teaching and learning strategies teachers used to educate learners with Learning Disabilities . This chapter presents the summary of the findings, conclusions and recommendations of the study.

5.1 Summary of the Findings

5.1.1 Demographic Characteristics of Teachers and Headteachers

The summary of the findings is based on the objectives of the study. Almost all the teachers who teach learners in the schools selected for study were young, they were in the age-group of between 35-40 years that is 47%, followed by those in age-group 40-45 years, (31%) and those aged between 45-50 years and this comprised 16%. There are a few teachers who are of over 50 years of age and this comprised 6%. Majority of the headteachers were over 50 years, and those aged between 40-45, was only one and so was those aged between 45-50.

5.1.2 Professional Qualifications of Teachers

Basically, all teachers had professional qualifications with ample teaching experience to teach children from standard one to standard four. The levels of education of teachers were P1, Diploma in education, ATSI and degrees, most of the teachers were P1 graduates who were about 58%, followed by university graduates who comprised 22%. Though teachers had professional qualifications and majority claimed to have knowledge in identification and assessment of LD, teaching and learning strategies to help the child, and collaborative skills, 94% had not specialized in any disability.

This is an indication that there is dire need for additional training that would equip teachers with necessary skills to educate learners with learning disability. Most teachers taught classes with between 41 to 60 pupils which is relatively large class size. This can be a challenge because making an individualized education programme for the learners can be a problem.

5.1.3 Identification and Assessment of Learners with Learning Disabilities

The researcher found that, 78% of the teachers claimed to have knowledge of identifying pupils with learning disabilities while 22% were unable to identify them. However with the introduction of an identification tool in class by the researcher, they were able to identify the learners. On assessment, 97% said they had ever assessed learners with learning disabilities, while only 3% had never assessed learners with learning disabilities. Assessment tools used included, teacher-made test which comprised 41%, observation 41% and an already prepared test which comprised 18%. Majority of the teachers assessed learners after covering every topic and that was 68%, 16% of the teachers who assess the learners at the beginning of the term and 16% assessed at the middle of the term. Assessment methods that most of teachers used to assess learners with learning disabilities were by giving standardized tests, that is 42 %, 23% of teachers did it by asking the learners oral questions, 19% gave exercises during the lesson.

5.1.4 Teaching and Learning Strategies and Materials

It was found that most teachers mainly used individual teaching, demonstration, group teaching and phonics among other teaching and learning strategies to educate learners with learning disabilities. Twenty-two per cent of the teachers preferred teaching

learners as individuals and 16% preferred the use of group teaching method. Out of the 32 teachers used in the study, only 31% of the teachers searched on current trends in LD instruction from the internet and other sources in order to equip themselves with the modern teaching and learning strategies. Sixty-nine per cent do not update themselves with the latest teaching and learning strategies.

Further findings showed that 38% of the teachers were adequately equipped with skills and knowledge on how to teach learners with learning disabilities during their training while 62% were not well-equipped during training. Ninety-seven per cent of the teachers indicated that they were in need of in-service training and 3% said that they didn't need any more training. Half of the teachers used charts and maps as teaching materials to help learners with learning disabilities. Other materials commonly used were visual aids, pictures and flashcard among others.

Reasons that most teachers gave for teaching materials they selected were that they met a variety of objectives and that comprised 43%, 40% of the teachers said that they used those materials they were trained to use during training among other responses. During remediation of learners with learning disabilities, 57% of the teachers used the same materials they had been using during their normal teaching while 43% changed the materials. On what steps should be taken on inadequacy of materials, 37% of the teachers suggested that schools should be adequately equipped, 30% said that the government should intervene and provide, 35% said that teachers should be in-serviced on use of locally available teaching materials among other responses.

It was also found that 75% of the teachers experienced difficulties when teaching children with learning disabilities. Teaching materials was cited to be the main challenge experienced when teaching children with learning disabilities and this comprised 75% and inability for the learners to respond accordingly made it hard for teachers to intervene and this comprised 25%. Sixty-seven per cent of headteachers gave assistance to teachers who were not well-equipped with skills and knowledge on how to teach learners with learning disabilities while 33% advised them to get assistance from other special education teachers. Only 25% of the head teachers organized seminars and workshops that enabled teachers to acquire skills and knowledge on how to teach learners with learning disabilities while 75% did not organize.

5.1.5 Collaboration

The researcher found that, 63% of the teachers had a resource person whom they consulted when confronted with challenges when teaching learners with learning disabilities. Also, 66% of teachers had knowledge in collaboration while 34% did not have any knowledge. The main challenge encountered by teachers during collaboration was poor participation of some teachers and this comprised 44%, inadequate time for collaboration and this comprised 27% and 5% said that they lacked support from headteachers among other challenges. It was also clear that, 79% of teachers found collaboration as their own responsibility while 21% felt it was a bother. Areas where teachers mostly worked together were in screening, this comprised 36%, instruction and evaluation 29%, identification and assessment (14%) among other responses. Almost all teachers (97%) said that they needed more training on how to teach learners with learning disabilities while 3% said that they had enough

training. Challenges encountered by head teachers encouraging teachers to collaborate were mainly lack of interest by teachers while others were reluctant to share their expertise.

5.2 Conclusion

The study arrived at the following conclusions based on the research questions and research findings. On the question about professional qualifications, the study concluded that though teachers had professional qualifications, they lacked adequate skills and knowledge to teach learners with learning disabilities. There is therefore, need for teachers to acquire training in the area of special needs and particularly in LD because learners with LD are found in almost all regular public schools. On the question on ability of the teachers in regular schools to identify learners with learning disabilities, the study concluded that though teachers claimed to have knowledge in identification, there was no evidence of an identification tool that was used in class. However, they were able to use the tool that was introduced to them by researcher correctly. There is, therefore, dire need for all primary school teachers to be equipped with necessary skills on identification of learners with LD so that these learners are not left unattended on the basis that they do not want to learn. On the question on assessment, the study found that most of the tools used were appropriate because assessment has been integrated in the learning process and it was also ongoing. However, teachers need to be encouraged to use assessment results for remediation purposes and improvement of teaching strategies.

Regarding the question of the teaching and learning strategies and materials used by teachers serving learners with learning disabilities, the study concluded that most

teachers used individual teaching, demonstration, group teaching and phonics among other strategies. These teaching and learning strategies can be very useful if geared towards the specific needs of an individual child. Further, the methods would work best if proper identification of the problem the child has is established and appropriate intervention done. Teacher training curriculum should adequately address the area of LD. Teachers already in the field should be encouraged to research on current trends in the area of LD instruction. This will equip them with modern teaching strategies. Materials commonly used are charts, visual aids, pictures and flashcards but modification of materials to cater for the child with LD was not evident.

Regarding the question on collaborative structures that have been put in place, the study concluded that most of the teachers have knowledge on collaboration. Teachers have resource persons from outside with whom they share ideas on how to identify, assess and teach learners with learning disabilities. Headteachers as well assist teachers in collaboration. However, the study concluded that a few challenges like poor participation of teachers, inadequate time to plan, teach and evaluate learners together, some teachers lacking skills in collaboration and inadequate materials hinder partnership among special educators and regular teachers. Therefore, there is dire need to organize seminars to educate teachers on importance of collaboration. This will help address the challenges highlighted.

5.3 Recommendations

Based on the results, the following are the recommendations that require short-term and long-term address by different stakeholders:

5.3.1 The Government

Teaching and learning strategies are very critical in addressing the unique needs of learners with learning disabilities. Inability to use appropriate tools for early identification of learners with LD may hinder early intervention. Inappropriate teaching, learning strategies and materials can prevent a child with learning disabilities not realize his/her full potential in school. Consequently, this child fails to become a productive member of the society thus enhancing high dependency ratio. It is therefore; of paramount importance that the Government of Kenya, put in policies and proper mechanism of ensuring that teachers are adequately trained and equipped with modern teaching and learning strategies that will enable them accommodate learners with LD. This will encourage learners to remain in school since they will not be demotivated and frustrated to an extent of dropping out from school.

The government should also ensure that teachers handle small class sizes preferably at the ratio of 1:30 so that teachers can develop IEP for learners with LD. Adequate funding specifically for learners with special needs should be enhanced so that ample specialized teaching and learning materials can be provided. This would ensure that no child suffers in the hands of the teachers due to lack of specialized learning materials. Collaboration among teachers would also be enhanced because they would have adequate materials to share.

5.3.2 Kenya Institute of Education

Teacher training college should also focus on LD curriculum as a significant component in the training syllabus. This is because most teachers leave colleges without being fully equipped with skills and knowledge on how to handle learners

with learning disabilities. It is also recommended that the area of special needs education especially in primary teachers college be taught by special needs education tutors who are well-grounded with knowledge and skills. Kenya Institute of Education should take the initiative of developing assessment tools that will be used by teachers to establish specific skill deficit in learners with LD so that learners can be helped early enough. Modified teaching and learning materials should be developed so that teachers handling learners with learning disabilities will not have excuses for not accommodating learners with LD in their classes.

5.3.3 Teacher Advisory Centre Tutors

The Teachers Advisory Centres (TAC) tutors should be in-serviced on usage of appropriate teaching and learning strategies for learners with learning disabilities so that they can equip the teachers handling these learners with the same skills.

5.3.4 Headteachers and Teachers

Headteachers and teachers should work as partners with an aim of helping learners with LD so that they can realize their full potential. The headteacher should create enabling environment for both special needs education teacher and regular teachers to screen and identify learners with LD, plan together, assess together and share resources for the benefit of the child. In-service training, workshops should be encouraged at either school or zonal level so that teachers would be equipped with skills and knowledge on how to teach learners with learning disabilities. Head teachers should advocate for this when called for meetings by the district education officers so that they can get support from the office. Headteachers should recognize the presence of teachers who are specialists in the area of learning disabilities. These

teachers should act as resource persons in their respective schools. Pull-out-programmes can be initiated in all the schools where a learner with learning disabilities in a specific area is assisted by the resource teacher and then joins the rest in class.

5.4 Areas of Future Research

Basically, though the study was a fair presentation of all the learners in public primary schools, it was limited to classes 1-4, a study can be carried out in the upper classes to establish whether there are other teaching strategies that can work with older children. A study is required to identify teaching and learning strategies that can address the specific skill deficits in learners with learning disabilities. Another study can also be carried out to establish the area of strength individual learners with LD have so that the potential in the child can be exploited and enhanced. This study also did not work on environmental modification for learners with learning disabilities and the activities that these learners should be engaged in so that they can learn. Therefore, another study is recommended.

REFERENCES

- Adams G., & Carnine, D. (2003) *Handbook of Learning Disabilities* New York, NY: Gulliford press.
- Bagnato, S.J., Neisworth, J. T., & Munson, S. M. (1997). *Linking assessment and early intervention, an emerging Evidence based Practice* T, Kehle, Oxford *Handbook of psychological Assessment*, New York NY: Oxford University Press
- Bell, J.(1993) *Doing your Research project*. Buckingham; Open university press.
- Borg, W.R .(1982). *A practical guide for teachers*. New York: Longman.
- Boud, D., Cohen R., and Samson, J. (2001) *Peer learning in high education: learning from each other* London, Kogan press.
- Bless, C.& Achola, P.P.W(1997). *Fundamentals of social research methods; an African approach*. Lusaka University: Zambia
- Bruner, J. S. (1966). *Toward a theory of instruction*, Cambridge, Mass: Belkapp Press.
- Bruner, J. S. (1971). *The relevance of education*. New York: Norton.
- Bureau of Labor statistics (2010-2011). *Teacher-Special Education: Occupational outlook Handbook: US department of labour*.
- Chadha, A, (2001). *A guide to educating children with learning disabilities*. Vikas publishing house; PVT Ltd.
- Creswel, J. W. (2005) *Educational Research Planning, Conducting, Evaluating Quantitative and Qualitative Research (2nd.)* Ohio: Prentice Hall.
- Daily Nation (2010). *School disaster in the making: Research by Kenya National Examinations Council*. June 22, Nation Media Group, Nairobi.

- Daily Nation (2010). Kenya Census Report; Kenya Bureau of Statistics.2nd September, Nation Media Group, Nairobi.
- Dakar framework of action (2000). United Nations Education and Cultural organization(UNESCO).
- Dieker, L.A., & Barnett, C.A.(1996). Effective co-teaching. Teaching exceptional children, white plains, NY: Longman.
- Fisher, J., Schumaker, J., Deshler (1995). Searching for validated inclusion Practices: A review of the literature focus on the exceptional children.
- Friend, M.,& Bursuck, W (2002). Including children with special needs: A practical guide for classroom teachers (3rd ed.). Boston: Allyn & Bacon.
- Friend, M., & Cook, L. (2003). Interactions: Collaborative skills for schools professionals (4th ed.). New York: Longman.
- Fuchs, D., & Fuchs, L. (1998). Reseachers and Teachers working together to adapt instruction for diverse learners. Learning Disabilities Research & Practice. Mahwah, NJ:Erlbaum.
- Gardener, H. (1997). Intelligence reformed: Multiple intelligences for the twenty-first century. New York: Basic Books.
- Garmet, K., & Lackanya, T. (1993). Modifying and adopting methods and materials for students with learning disabilities in mainstreamed classrooms. New York: Hunter College.
- Gulliford, R. (1971). Special education needs. London: Routledge and Kegan Paul Limited. Retrieved from [Http.www.ericdigest.org/2002.2004. learning disabilities.html](Http.www.ericdigest.org/2002.2004.learning_disabilities.html). (30th May, 2009).
- Guralnick, M.J (Ed). (1997). The effectiveness of early intervention. Baltimore: Paul H. Brookes.

- Heilman, A.W. Blair, T.R. & Rupley, W.H. (1981). Principles and practices of teaching. (5th ed.) Columbus E. Merrill.
- Hittlemen, D.R. (1983). Developmental Reading, K-8: Teaching from psycholinguistic Perspective (2nd ed). Boston: Houghton Mifflin.
- Individuals with Disabilities Education act of 1997, Public law 105-17, 10th cong., 1st sess (January 7, 1997)
- Jenkins, J., Jenkins, L., (1985). Peer tutoring in elementary and secondary programs. Focus on exceptional children, 17 (6) 1-12.
- Kavale, K. & Forness, S. (1995). The nature of learning disabilities. Historical perspective on education of learning disabled. autism. Texas: PROED, 103-152.
- Kamunge, J.W. (2009). Factors affecting teachers intervention for primary school pupils with slow learning abilities. Kasarani Division, Nairobi. Unpublished Masters Thesis. Kenyatta University
- Kerlinger, F. (1973), Foundations of Behavioural Research. (2nd ed.). New York: Holt
Reinert and Winston Inc
- Kinyua, J. N. (2006) Promoting teacher parent collaboration in curbing the condition of LD. Unpublished Med Thesis. Kenyatta University. Kenya: Kenya.
- Koegh, B.R. (1998). Learning disabilities diversities in search of orders in M.C. Wang, M.C. Renolds, H.J. Walbera (Eds). The Handbook for special Education Research & practice volume 13 P.4. Oxford Pergamon Press.
- Kirk, S.A., Gallagher, J., & Anastasion, N.J. (2003). Educating exceptional learners (10th ed.). Boston. New York: Houghton Mifflin.

- Kombo, D.K., & Tromp, L.A. (2006). Proposal and thesis writing: An Introduction. Kenya: Paulines Publication Africa.
- Lerner, J. (2006). Learning disabilities and related disorders: Characteristics and teaching strategies. (10th ed). Boston: Houghton Mifflin.
- Lerner, J. (2000). Learning disabilities: Theories, diagnosis and teaching strategies. 8th ed.). Boston: Houghton Mifflin.
- Lerner, J., (1997). Learning disabilities. Theories diagnosis and teaching strategies (7th ed.). Boston: Houghton Mifflin.
- Lerner, J. (1981). Learning Disabilities, Theories, Diagnosis and Teaching Strategies(3rd ed.). Boston
- Lerner,J.,Kline,F.2006.Learning Disabilities and Related Disorders. New York:Houghton Mifflin Company.Meyer,M.
- Lewis, R.B., & Doorlang, D.H. (1983). Teaching special children in the mainstream. Columbus. Ohio: Charles. E. Merrill.
- Lipson, M. Y,& Wixson, K.K. (1997) Assessment & instruction of reading and writing Disability : Interactive approach (2nd ed.). New York, Longman.
- Lyon G. R. (1996).Learning disabilities.In child psychopathology. E. Marsha and R. Barkleyeds New York: Guiliford Press.Pp 390-434.
- Martin, H. R., Ramsey. S., & Robert, F.A. (2006). Characteristics of and strategies for teaching students with mild disabilities (5th ed.) U.S.A: Cicil D.
- Moats, L. C.(1994). The missing foundation in teacher education. Knowledge of the structure of spoken and written language. Annuls of dyslexia, 44: 81-102.
- MoEST (2003): Report of the task force on Special Needs Education. Government press: Nairobi.

- Mugenda, O.M, & Mugenda, A.G. (2003). Research methods: Quantitative and qualitative approaches. Nairobi: ACTS Press.
- Odera ,O.A.(2005) Adequacy and utilization of teaching resources for learners with slow learning abilities in Nyanza. Unpublished Med project. Kenyatta University.
- Pinnel, G.S. (1991). Reading recovery: Helping at risk learners learn to read. *Elementary School Journal* 90. 161-184.
- Runo, M. N. (2010). Identification and teachers oriented challenges in teaching reading to standard fire learners in Nyeri and Nairobi Districts. Unpublished Ph.D. Thesis. Kenyatta University.
- Republic of Kenya. (1999). Kenya national development plan (2002- 2009) Nairobi: Government Printers.
- Republic of Kenya. (2005. Sessional Paper No 1 of 2005 on a policy framework for Education, training and research. Nairobi: Government Printer.
- Republic of Kenya. (2005). Strategic plan of the Ministry of Education. Nairobi:
- Rosenshine, B. (1986). Synthesis of research on explicit teaching. Educational leadership, New York: Macmillan.
- Smith, R.S. (1983). Learning disabilities. The interaction of learner, task and setting. Boston: Little, Brown.
- Stoodt, B. D. (1981). Reading Instruction. Boston: Houghton Mifflin.
- Torgesen, J .K(1998). Learning disabilities: A historical and conceptual Overview. In Wong, B.Y.L. (Ed), Learning About Learning Disabilities, (2nd ed.) San Diego: Academic Press.
- [http:// www. Ehow. Com / info 7931646 qualifications- education-teacher.](http://www.Ehow.Com/info7931646/qualifications-education-teacher)
- <http://www.eric digest.org/2002-2004/learning -.html. disabilities>

<http://www.understanding-learning-disabilities.com/history-learning-disabilities.html>

UNESCO (2005) Education for all. EFA Global Monitoring Report, 2003.

UNICEF,(United Nations Children Education Fund,1998). The State of the World's children. NewYork: Unicef.

Uwezo – Kenya. (2010). Are our children learning? An annual learning Assessment report. Nairobi, Kenya: Geogebensons Media.

U.S. Department of Education. (1997). To assure the free appropriate public education of all children with disabilities. Washington D.C: U.S. Government Printing Office.

Valencia,S.W.,& Pearson, P.D (1987). Assessment accountability and professional prerogative in J.E. Redence & R.S. Baldwin(Eds.). Research in literacy: Merging Perspectives,(pp.3-16).Rochester, NY: National Reading Conference.

Walther-Thomas C., Korinne, L.,& McLaughlin, V. (2000). Collaboration for inclusive education: Developing successful programs. Boston: Allyn & Bacon.

Wafula R.W. (2010). Early identification of learning disabilities among standard three pupils of primary schools in Butere District Kenya. Unpublished Med Thesis.

Weinberge, N. (1978). Examinations of pre-school attitudes towards the physically handicapped. Rehabilitation and counselling bulletin.

Wolery, M., & Bailey,D., Jr.. (1992). Early childhood special education research. Journal of Early Intervention.

WHO, (World Health Organization, 2006). Mental retardation: Meeting the challenge. Joint Commission on International Aspect of Mental Retardation (WHO) offset publication No 86. Geneva.

www. Acp. Edulink e.u./EN. Education for children with learning disabilities.

African Cooperation for Promoting Higher Education and Research.

www.Learning disabilities.com6thmay (2010).

(htt://www. ehow. com/info7931646qualifications-special-education-teacher

Wheellock, A. (1995). Empowered teachers, empowered learners: Reform in progress in Lousville's High Media School. Columbia University. NCREST Teachers College.

APPENDICES**APPENDIX A****Introduction Letter**

Dear Sir/Madam,

My name is Milkah Njuguna and I am conducting a research on teaching and learning strategies utilized by teachers when serving learners with learning disabilities of public primary school pupils. I am particularly interested in standard 1-4 children whose early literacy and numeracy skills form foundation for further learning. During your interactions with these children with learning disabilities, something bothers you because of their inability to perform and excel like other children. Sometimes you utilize teaching and learning strategies that do not accommodate these learners. For this reason, I would like to ask you a few questions that may help us improve our teaching and learning strategies that will help us serve these children better. I assure you that all information given here will be treated with utmost confidentiality and only be used for research.

Please spare some of your precious time to answer these questions. It is not necessary to write your names.

Thanking you in advance.

Milkah Njuguna

Masters Student, Special Education Department

Kenyatta University

Date _____

APPENDIX B

Questionnaire for teachers on teaching and learning strategies and materials utilized when teaching learners with learning disabilities

A. Directory Information

Please provide the following information by filling as requested.

i. Your age bracket

30- 35 [] 35-40 [] 40-45 [] 45-50 [] over 50 []

ii. Gender Female [] Male []

iii. Name of your school..... Zone Location
division..... District..... Province

iv. Your professional grade:

P2 [] P1 [] S1 [

] Diploma in Ed [] ATSI [] Graduate

teacher []

Untrained [] others (Specify).....

.....

v. Year of graduation from teachers training college

vi. Areas of specialization (for those with special needs education training)

.....

vii. What is the total number of pupils in your class?

viii. Indicate the number of years you have taught.

1 Year [] 2 years [] 3 years []

over 4 years []

B. Information on identification and assessment of learners with learning disabilities

1. a) Do you have knowledge on how to identify children with learning disabilities?

Yes [] No []

b) Do you ever assess learners with learning disabilities?

Yes [] No []

c) What tools do you use for assessment?

Teacher-made test []

An already prepared test []

observation []

d) When do you assess your learners?

Beginning of the term []

Midterm []

After covering every topic []

2. a) Do you take assessment as someone else's job?

Yes [] No []

b) If 'Yes' or 'No' explain how you feel about assessment

.....

c) (i) Do assessment results help you as a teacher?.

Yes [] No []

(ii) if yes, how ?

(iii) if no, how ?

d) Briefly describe how you assess learners in your class

.....

C. Questions on teaching and learning strategies and materials

3. How many pupils do you teach?

4. What teaching and learning methods do you use to help learners with learning disabilities?.....

5. What teaching and learning methods have worked best for you?

.....

.....

6. What difficulties do you encounter when teaching learners with learning disabilities?

7. a) Do you research more on current trends in LD instruction ?

Yes [] No []

b) Explain further.....

8. During your training, were you equipped with adequate skills and knowledge on how to teach learners with learning disabilities?

Yes [] No []

9. Do you think you need some in-service training on how to teach learners with learning disabilities?

Yes [] No []

10. Suggest what additional assistance you would need in order to help learners with learning disabilities

11. What type teaching and learning materials do you use when teaching learners with learning disabilities?.....

12. a) What criteria do you use to select materials for teaching? (tick one or more than one)

- Those available []
- Those that you have been trained to use []
- Those that will meet a variety of objectives []
- None of the above []

b) Are materials adequate?

Yes [] No []

c) What do you think should be done about inadequacy of teaching and materials?.....

13. During remediation of learners with learning disabilities, do you use the same materials you used in your normal teaching earlier or do you change?
 Yes [] No []

D. Questions on collaboration

14. Do you have any resource person you can consult or collaborate with, to help you address the problems you encounter when teaching learners with learning disabilities?
 Yes [] No []

15. How would you rate the help you get from the ones you have mentioned above?
 i. Adequate []
 ii. Average []
 iii. Little help []
 iv. No help at all []

16. a) Do you have any knowledge in collaboration?
 Yes [] No []

b) What challenges do you face during collaboration?

17. Is the environment in your school conducive for collaboration?
 Yes [] No []

18. a) Collaboration is an added responsibility for the teacher. Do you find it as a bother?
 Yes [] No []

b) i if yes, how ?
 ii if no, why ?

19. In which of the following areas do you work together when teaching children with learning disabilities? (Tick all or any of them)

Screening []

Identification and assessment []

Instruction []

Evaluation []

None of the above []

20. a) Does the Head teacher in your school support collaboration?

Yes []

No []

b) What support do you get?

.....

21. Do you need some more training in collaboration?

Yes []

No []

APPENDIX C

Interview schedule for the headteacher on learning disabilities

1. Directory information.

Please provide the following information as requested.

i) Your age Bracket.

35-40 [] 40 -45 [] 45-50 []

ii) Gender female [] Male []

iii) Your professional grade:

PI []

ATSI []

Diploma in Education []

Others (specify) _____

(vi) Area of (specialization)

Number of years as administrators

1 Year []

2 Years []

3 Years []

4. Years []

Over 5 years []

B. Information on Identification and Assessment of Learners with Learning Disabilities.

1. When pupils in your class perform below average, do you establish the cause.

Yes [] No []

2. What challenges do teachers in school face during identification of learners with learning disabilities

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

3. What steps do you think should be taken to improve performance in your school

C. Information on teaching and learning strategies & materials

4. What difficulties do teachers in your school encounter during the teaching of children with LD?

.....

5. Do you organize seminars and workshops in your school for teachers to upgrade their knowledge on teaching strategies for child with LD?

.....

6. What challenges do you experience when providing teachers with teaching materials in your school?

.....

D. Information on collaboration

7. What support do you give teachers during collaboration?

.....

8. What are your views as a head teacher towards collaboration?.

.....

9. Do you think teachers in your school need training in collaboration?

.....

APPENDIX D

Lesson observation schedule on teaching, learning strategies and materials used by teachers teaching learners with disabilities

(To be filled by the researcher or research assistant)

SECTION A

Childs Name _____ class _____ School _____

Zone _____ Division _____ District _____

Province _____ Teachers' name _____

SECTION B

Information on identification and assessment

1. Has the teacher identified learners with learning disabilities?

Yes [] No []

2. What assessment tools does the teacher use?

Teacher made tests []

Observation []

Both []

None of the above []

3. After assessment, does the teacher give immediate feedback?

Yes [] No []

4. How does the teacher use assessment results?

For remediation []

Vary teaching and learning strategies []

Administration purposes []

SECTION C

Information on teaching, learning strategies and materials

5. Is the teacher teaching the learner with learning disabilities able to handle the learner? Yes [] No []

6. Does the learner raise up her hand when teacher asks questions in class?

Yes [] No []

7. Does the learner finish the task given in time?

Yes [] No []

8. Is the learner given time to express her/himself?
Yes [] No []
9. Is the learners' effort appreciated when she/he attempts to answer a question or gives correct answer?
Yes [] No []
10. During the lesson, how does the teacher organize the pupils?
Individually []
In Pairs []
In Groups []
Whole Class []
11. Is the learner able to do the task given by the teacher?
Yes [] No []
12. Does the learner appear ready to be taught?
Yes [] No []
13. Does the learner benefit from the instructional techniques?
Yes [] No []
14. Does the learner benefit from teaching and learning materials utilized in class?
Yes [] No []
15. Does the teacher experience difficulties teaching learners with learning disabilities?
Yes [] No []
16. Does the teacher individualize attention when teaching the learner?
Yes [] No []
17. Are the materials utilized by teachers relevant to the topic taught?
Yes [] No []
18. Are the teaching and materials achieving a variety of objectives?
Yes [] No []
19. Are the materials appropriate in terms of age of the learners?
Yes [] No []
20. Are the materials safe for the learners to manipulate?
Yes [] No []
21. Are the letters on teaching and learning materials legible?
Yes [] No []

SECTION D: Information on collaboration

22.a) Is the regular teacher working together with special education teacher?

Yes [] No []

b) If Yes, in which areas?

Planning together []

Individualizing attention as the other teacher teaches []

Assessing together []

None of the above []

23. Does the teacher seem to have skills on collaboration?

Yes [] No []

APPENDIX E

Checklist on characteristics of learners who may have learning disabilities

(To be filled by the teachers prior to the study and the findings verified by the researcher)

SECTION A

Child's name _____

Gender _____

Class _____

School _____

Age _____

SECTION B

Go through the following list and tick if the given characteristics are portrayed by learners in your class.

(1) Academic disabilities

		Teachers findings			Researchers Findings	
		Yes	No	Not sure	Yes	No
	Learner					
(i)	Reverses letters and numbers when writing					
(ii)	Have problems spelling words that show little relationship to the sound.					
(iii)	Unable to apply skills learned in reading and arithmetic.					

(2) Perceptual motor-difficulties

		Yes	No	Not sure	Yes	No
	Learner					
(i)	Poor visual perception					
(ii)	Gross motor awkwardness or clumsiness					
(iii)	Only uses one hand or side of the body					

(3) Language and speech disorder

	Learner	Yes	No	Not sure	Yes	No
(i)	Distorted speech, omits or adds sound					
(ii)	Slow oral delivery					
(iii)	Poor sentence structure					

(4) Difficulties with thought process

	Learner	Yes	No	Not sure	Yes	No
(i)	Takes time to organize thought before responding					
(ii)	Unable to pay attention					
(iii)	Unable to respond to in orderly version					

(5) Behaviour and effective characteristics

	Learner	Yes	No	Not sure	Yes	No
(i)	Excessive body or verbal activity					
(ii)	Rather lethargic and non-active(hypoactive)					
(iii)	Easily disturbed by noise					

APPENDIX F

Research Authorization Letter and Permit

REPUBLIC OF KENYA



NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Telegrams: "SCIENCETECH", Nairobi
 Telephone: 254-020-241349, 2213102
 254-020-310571, 2213123.
 Fax: 254-020-2213215, 318245, 318249
 When replying please quote

P.O. Box 30623-00100
 NAIROBI-KENYA
 Website: www.ncst.go.ke

Our Ref: **NCST/RRI/12/1/SS011/1264**

Date: **30th August, 2011**

Milkah Njeri Njuguna
 Kenyatta University
 P.O BOX 43844-00100,
 NAIROBI

Dear Madam,

RE:RESEARCH AUTHORIZATION

Following your application for authority to carry out research on; *"Identification of instructional techniques used by teachers educating pupils with learning disabilities in regular public primary schools in Thika West District"* I am pleased to inform you that you have been authorized to undertake research in **Thika West District** Kenya for a period ending **30th October 2011**

You are advised to report to **The District Commissioner, The District Education Officer, Thika West District** before embarking on the research project.

On completion of your research project you are advised to submit **one hard** copies and **one soft** copy of your thesis/ project to this office.


P.N NYAKUNDI
FOR: SECRETARY/CEO

Copy to:

The District Commissioner
 Thika West District

