EARLY IDENTIFICATION OF LEARNING DISABILITIES AMONG STANDARD THREE PUPILS OF PUBLIC PRIMARY SCHOOLS IN BUTERE DISTRICT, KENYA

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Declaration

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

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We confirm that the work reported in this thesis was carried out by the candidate under our supervision as university supervisors.

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Dedication

This work is dedicated to my soul mate angel Idah and lovely daughter Zawadi for the emotional, spiritual and financial support they gave me to clear it on time. Amen.

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Acronyms and Abbreviations

ATS	-	Approved Teacher Senior
BED	-	Bachelor of Education
DANIDA	-	Danish Internal Development Agency
EARC	-	Educational Assessment and Resource Centre.
ECD	-	Early Childhood Development
EFA	-	Education For All.
EFAHCA	-	Education for All Handicapped Children Act
FPE	-	Free Primary Education
FPE	-	Free Primary Education
G.O.K	-	Government of Kenya
HI	-	Hearing Impairment.
ICLD	-	Integrity Committee on Learning Disabilities
IDEA	-	Individuals with Disabilities Education Act
IEP	-	Individualized Educational Programme
IQ	-	Intelligence Quotient
KIE	-	Kenya Institute of Education.
KISE	-	Kenya Institute of Special Education
LD	-	Learning Disabilities.
M.R	-	Mental Retardation.
MDGs	-	Millennium Development Goals.
MKO	-	More Knowledgeable Other
MOEST	-	Ministry of Education, Science and Technology
NCLB	-	No Child is Left Behind
NJCLD	-	National Joint Committee on Learning Disabilities
NRC	-	National Reading Council

NRP	-	National Research Panel
P1	-	Primary One
RD	-	Reading Difficulties
RTI	-	Response to Intervention
SLD	-	Specific Learning Disorder
SNE	-	Special Needs Education
STD DEV		Standard Deviation
TSC	-	Teachers Service Commission
TTCs	-	Teacher Training Colleges
UNESCO	-	United Nations Educational Scientific and Cultural Organization
UNICEF	-	United Nation International Children Education Fund
USA	-	United States of America
V.I	-	Visual Impairment.
ZPD	-	Zone of Proximal Development

Abstract

The enigma of children experiencing extra-ordinary learning difficulties is not new. Learning disabilities occur in all cultures, nations and language groups. Nearly half of all children receiving special education services in the U.S. have learning disabilities. Studies reviewed have shown that about thirty percent of children in standard one experience learning difficulties. Even though the children look 'normal', they are unable to perform commensurate with their age and ability. These children become disenfranchised because their educational needs are not met adequately. Many develop low self esteem and eventually drop out of school. Studies reviewed indicate that early identification leading to early intervention causes a seventy percent recovery. The purpose of this study therefore, was to investigate if there was early identification of learning disabilities amongst standard three pupils of Butere District, Kenya and selective factors that influenced or hindered early identification of learning disabilities. The study also sought to establish the criteria used to determine eligibility of learning disability as well as the number of children with learning disabilities enrolled in the standard three classes of the public primary schools of Butere District. The study employed the ex-post facto design to analyze and understand relationships among variables. The socio-cultural theory formed the theoretical foundation of the study. The independent variables of this study were; teachers level of training in Special Needs Education, Teacher-Pupil ratio and Teacher-Parent Interaction over the child's academic work. The dependent variable of the study was Early Identification of Learning Disabilities. The study was delimited to the standard three pupils of public primary schools only. This is because successful early identification and intervention occurs at the age of 9 years and below (standard three and below). A sample of twenty five (25) public primary schools was drawn from the total population of one hundred and twenty six (126) public schools spread across the four educational zones of Butere District. Both stratified and systematic sampling methods were used to select the sample. Thirty seven (37) standard three teachers and twenty five (25) head teachers from the twenty five sampled schools formed the sample population. Questionnaire and interview schedules were used to collect data. Both qualitative and quantitative data methods were used. Data was prepared for analysis using the Statistical Package for Social Science (SPSS). Descriptive statistics calculated were; frequencies, means, modes and standard deviations. Inferential statistics such as The chi-square (x^2) and Pearson Product Moment Correlation were used to test the hypotheses of the study. The study revealed that about 24% of children in the regular sampled schools were learning disabled. Most teachers were not trained in special needs education and handled very large classes of above sixty (60) pupils. There was a significant relationship between teacher-pupil ratio and early identification of learning disabilities but not between teacher level of training in Special Needs Education and teacher-parent interactions with early identification of learning disabilities. To enhance early identification of learning disabilities there is need to train more teachers in Special Needs Education, encourage trained teachers to use their skills in early identification of learning disabilities, employ more teachers to reduce the high teacher-pupil ratio and sensitize the community on the importance of early identification of learning disabilities for successful early intervention and subsequent success in education.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The enigma of children experiencing extra ordinary difficulties in learning is not new. Learning disabilities occur in all cultures, nations and language groups. Seventy percent (70%) of children who have learning disabilities experience learning difficulties in language areas while 26% experience difficulties in maths (Cass, 2003 , Learner, 2002 ; 2006 ; Lyon, 2001).

Children with learning disabilities seem bright, enthusiastic and with the potential to perform well in education just like their peers of the same age. They perform well in most subjects but for some unexplained reasons fail in specific areas of Maths (Maths reasoning and Maths calculation/computation). They also fail in language (oral language, listening comprehension, reading comprehension, basic reading skills and written language) unlike other children of the same age and ability even when given same learning opportunities (Chadha, 2001; Learner, 2006).

Therefore, despite appearing 'normal' children with learning disabilities are unable to perform commensurate with their age and ability levels due to a basic psychological problem. This psychological problem causes a discrepancy between the child's achievement and their actual intellectual ability in; oral, listening comprehension, reading and written expression skills. Due to this children with learning disabilities require specialized education (Chadha, 2001; KISE, 2002).

The causes for learning disabilities are not clear. Some people argue that it is intrinsic and others say it is extrinsic. The basic processing disorder could be attributed to pre, peri and post-natal factors such as; mothers use of unprescribed drugs, contracting Rubella/German measles when expectant, anoxia or injury incurred during delivery and malnutrition after birth (Chadha, 2001; K.I.S.E, 2002).

Learning disabilities have several negative implications on the child's development. To begin with, the child becomes disenfranchised because his/her educational needs are not adequately met in the education services. Secondly, the disability is a probable cause for the high drop out rate among primary school children. Thirdly, a child with learning disabilities develops low self esteem and performs poorly. The child will be forced to require special educational services in the future which will not only cost the parents a lot of money but also the society (Chadha, 2001 ; Education of Handicapped Children, 1970; Guralnick, 1997; Jones, 1986; Scholl, 1986; Woolery & Bailey 2003).

Moreover, learning disabilities make the child be a tax receiver and not a tax payer. The disability has a major social and economic impact to the society. A lot of financial resources that would have been used for other development projects are pumped into the special education service. The child's family is made to suffer from social stigmatization associated with having a disabled child. Finally, the disability prevents the child from not only becoming a productive member of the society but also make them not to maximize their potentials in life and thus enhancing poverty and high dependence ratio (Chadha, 2001; Learner, 2006 ; Weinberg, 1978).

However, research studies indicate that early identification and intervention of learning disabilities have good results. For example research studies indicate that early identification

and intervention of learning disabilities leads to a seventy percent recovery/rehabilitation of the children at risk. Early identification leads to early alignment of the child to the special intervention programmes which reduces or ameliorates the devastating effects of the impairment to the child's future academic and career achievement. Early intervention makes the child a productive member of the society who is a tax payer and not a tax receiver (Guralnick, 1997; Lerner, 2006; Linder, 1983; Lyon, 2001; N.P.C, 2004 ; Woolery and Bailey, 2003).

The child who gets early intervention of learning disabilities will have good future academic outcomes while the child's family and the whole society will save a lot of finances that would have otherwise been used on the costly special education services (Jones,1986; Scholl, 1986; Vaughn & Fuchs, 2003).

Early intervention will also lead to improved academic performance, thus watering down the social stigma attributed to the learning disability and this in addition enhances the child's self esteem and a positive self concept. Early intervention also saves parents from the social and economic stresses related to rearing a child with learning disabilities. Eventually, a child with learning disabilities who receives early intervention is brought back to their successful academic and career journeys (Jones,1986 ; Morris, 2003 & Weinberg, 1978).

Internationally, various legal instruments and policies have been put in place to facilitate a smooth and successful early identification and intervention of children with learning disabilities. Such instruments for example in the U.S.A are; the Education for All Handicapped Children and Individuals with Disabilities Education Act. These have not only sought to formulate a universal definition of LD but have also sought to establish universal

criteria of determining eligibility of children with learning disabilities for early identification/assessment and intervention (EAHC, 1975 ; IDEA, 1990; 1997 & 2004).

However, research studies indicate that there have been some impediments to the successful intervention of children with learning disabilities in the U.S. These include; discrepancies in determining eligibility for learning disability, training status of most teachers in the regular schools in special needs education, high teacher-pupil ratios, policies and practices, the language used for instruction, intervention strategies and the methods used for instruction (Lyon, 1996).

In Kenya, the literature reviewed does not seem to indicate the exact situation of learning disability. However, the studies indicate the effort being made by the Government of Kenya to offer early identification through assessment and intervention to children with various kinds of disabilities. This can be inferred from the numerous commissions of education established to look into issues pertaining to disabilities from independence to date (KISE, 2002; 2008). Such reports include; The Ominde report which noted that many children with mild handicaps were in the regular schools. However, for them to receive quality education, it was recommended that all certified teachers be given appropriate skills to handle these children. All the Teachers Training Colleges (TTCs) were to acquaint teachers with strategies for teaching children with special needs education. Had these recommendations been adhered to and implemented right from the pre-primary colleges, then early intervention could have been realized. However, this has not been the case and thus the need to address this issue (GOK, 1964).

The Gachathi report also fronted ideal recommendations towards early identification and intervention of children with special educational needs. These included; the government

coordinating early identification and assessment of children with special needs, creating awareness on the part of the public concerning the causes of disabilities to facilitate prevention, collecting data on existing handicaps and ascertaining the need to provide special needs education and formulating policies on how to integrate learners with special needs into the regular schools for early intervention (GOK, 1976)

This lead to the coordinated assessment of learners with special educational needs and consequently the establishment of the Educational Assessment and Resource Centres (EARCs) in 1984. This was done by the Kenya government in collaboration with the Royal Danish Government (DANIDA). The Kenya Government established the Kenya Institute of Special Education (KISE) in 1986 and tasked it with the role of training personnel handling learners with disabilities and coordinating the activities of all EARCs. The institute was also tasked to offer early assessment and intervention to various forms of disabilities. Great achievements were realized in the areas of mental, visual, hearing and physical impairments as compared to learning disabilities. This is so because the instrument used for assessing disabilities has a very small section for assessing learning disabilities. The instrument only seeks to establish if the child experiences speech and maths difficulties and the time the child started experiencing such difficulties (K.I.S.E, 2002).

In 1988, the Kamunge commission visited Special Institutions and interviewed many stakeholders on special needs education. Investigations dwelt on the specific categories of learners with special needs giving birth to the following recommendations; First, there is need for the survey or data collection to ascertain the number of persons having different disabilities, Second, to develop an appropriate curriculum for children with special educational needs, Third there is need to train all teachers in regular schools in methodology and on how to guide and counsel children with special education needs, integrate learners

with various handicaps into regular pre-primary and primary schools, provide the necessary facilities and equipments for learners with special needs, Fourth, the curriculum should cater for the teaching and examination of learners with special needs and use the media; and last, but not the least, regular schools and the community programmes to create awareness on the existence of children with special educational needs (GOK, 1988).

Also in the Koech report, various positive recommendations were fronted in relation to the education and training of children with special educational needs. These recommendations were; KIE should develop and standardize diagnostic assessment tools which have a local bias to promote proper identification and assessment leading to early accurate intervention and develop the Individualized Education Programme (IEP) (GOK, 1999).

However, to realize successful early identification of learning disabilities leading to early intervention, fundamental factors like teacher training in SNE, teacher-pupil ratio and teacher parent relationships are worth considering. A study to establish factors influencing integration of learners with SNE into regular primary and secondary schools established that trained teachers enhanced integration of learners with SNE into regular schools than untrained teachers (Lyon, 2001; Omurwa, 2007).

Further studies on the relationship between nutritional knowledge and nutritional practices revealed that teachers who had been trained in nutrition, practiced nutrition activities more than those who had not been trained in nutrition (Muting'au, 2006). This meant that training is important in enhancing early identification of learning disabilities.

The number of children a teacher handles per class greatly influence their ability to offer early identification of learning disabilities. Studies show that teachers who handle fewer

children have a close contact and interaction with their pupils. The close teacher pupil interaction enables the teacher to closely observe, identify the learning difficulties the child and theater offer early intervention (Boler, 2003;Ndani, 1994). There is need therefore, to hire more teachers in the developing countries to cut down the high teacher pupil ratio. This will in turn promote early identification of learning disabilities leading to intervention (Desai, 2005; UNESCO, 2005).

Other studies emphasize the need for parents and teachers to cultivate a cordial relationship which in turn enhances good teacher pupil relationship. A good teacher pupil relationship does not only bridge home school gaps, but also creates a close teacher pupil contact which promotes early identification of learning disabilities leading to intervention (Cowan, 2005, Gakii, 2003 ; Learner &Mcwayne, 2004). It is against this background that the researcher sought to establish whether or not the primary school system could identify children with learning disabilities leading to early intervention to achieve increased educational outcomes.

1.2 Statement of the Problem

Education is increasingly being regarded as a fundamental right of every child as stipulated in the EFA goals and Millenium Development Goals (MDGs). Studies show that there is a large number of children in earlier grades who experience learning difficulties. Due to this learning disabilities, these children become disenfranchised because their educational needs are not met, they develop a low self esteem, a negative self image and may fail to realize their future academic goals.

However, other studies show that early identification of learning disabilities leading to intervention causes a significant recovery not only to the child's academic but also the child's social and economic life. For this to be achieved, teachers ought to have been trained and

therefore, equipped with knowledge, skills and attitudes to offer early identification leading to intervention, there should be a low teacher pupil ratio to enable the teacher have a personal contact with each individual child to enhance early identification of learning disabilities. There is need for a cordial teacher parent relationship, which in turn cultivates a close teacher pupil relationship necessary for early identification of learning difficulties leading to intervention. With these in mind, the researcher sought to answer these pertinent questions: Are class three teachers of Butere district offering early identification of learning disabilities? How many children have been considered to be having learning disabilities? What criteria did the teachers use to consider these children as having learning disabilities? In which subject do these children exhibit learning disabilities? Further still, how is teacher training in Special Needs Education, teacher pupil ratio and teacher parent relationship influencing early identification of learning disabilities in Butere district? These questions needed to be answered, hence the need to conduct the study in Butere district.

1.3 Purpose of the Study

The purpose of this study was to find out if there was early identification of learning disabilities amongst standard three children of Butere District public primary schools and selective factors influencing or hindering early identification of children with learning disabilities. The study was also to investigate if standard three teachers and head teachers undertook early identification of learning disabilities, criteria used to determine eligibility, status of learning disabilities and selective factors influencing early identification of learning disabilities.

1.4 Objectives of the Study

The objectives of this study were: -

1. To find out if there is early identification of children with learning disabilities.
2. To find out how many children with learning disabilities had been enrolled in standard three classes of public primary schools in Butere District.
3. To investigate the criteria used by teachers to determine children with learning disabilities.
4. To find out the subject (maths or language) in which the children exhibited learning disability.
5. To investigate selective factors that influenced or hindered early identification of children with learning disabilities.

1.5 Research hypotheses

The following were the hypotheses of the study;

H_1O - There is a relationship between early identification of learning disabilities and the teachers' level of training.

H_2O - There is a relationship between early identification of learning disabilities and pupil-teacher ratio.

H_3O - There is a relationship between early identification of learning disabilities and parent-teacher relationship.

1.6 Significance of the Study

The findings of this study may be used by the Ministry of Education Science and Technology (MOEST) to formulate and implement ideal policies to enhance early identification and intervention of learning disabilities. The Kenya Institute of Education (K.I.E) may use the

findings of the study to develop standardized assessment tools, suitable curriculum and individualized education programme to facilitate early identification and intervention for children with learning disabilities. Trainers may use the findings of the study to equip trainees with relevant knowledge, attitudes and skills to effectively handle children with learning disabilities and offer early identification and intervention of learning disabilities. The other stakeholders may appreciate the importance of early identification and intervention of learning disabilities as a means of enabling children with learning disabilities succeed in their academics like their peers.

1.7 Scope, Delimitations and Limitations of the Study

The scope of this study included 25 public primary schools sampled from the four educational zones of Butere District. The study was delimited to teacher's age, teacher's experience and pupil's gender. The limitations of this study included; finances, limited time to conduct the study and nature of the disability that was not restricted to the special schools only unlike the other forms of disabilities.

1.8 Assumptions of the study

The investigator made several assumptions which underlay the study. In the first place it was assumed that; standard three teachers had some basic knowledge on the meaning and perception to determine eligibility of a child with learning disability. Secondly, the teachers who were knowledgeable in early identification of learning disabilities did so while the opposite applied to those who were not knowledgeable and incapable of identifying learning disabilities. It was also assumed that P1 teachers handled pupils of any class and that the level of professional qualifications and level of training in special needs education did not dictate the class they handled.

1.9. Theoretical Framework and Conceptual Framework

The research study adopted the Social Cultural theory of Lev Vygotsky. This theory was formulated in 1962 and stipulates that social interaction leads to continuous changes in children's thought and behaviour. He was born in Czarist Russia in 1896. Vygotsky is best known for being an educational psychologist. He also suggests that children's development depends on interaction with people and the cultural tools provided to them especially language (Vygotsky, 1978).

1.9.1 Vygotsky Social Cultural Theory on Learning

According to Vygotsky (1978), determining eligibility for a learning disabled child is social in nature as it largely depends on teacher-pupil interaction in the educational context. A close interaction between teachers and pupils facilitates close observation of the child's areas of academic difficulties. The teacher can further use a check list and tests to determine the child's learning disabilities' status. Teacher-parent relationship can also enable the teacher to get the child's family history and the parent's concerns about the child's learning disability status. Then through scaffolding, a teacher can raise the learning disability child's level of competence in areas of weakness. Therefore, the social cultural theory becomes suitable in this study.

According to Vygotsky (1978), there are three ways knowledge is passed on to a child. The first is Imitative Learning, a child imitates or copies another. Secondly, Instructed Learning which involves a child remembering the teacher's instructions and using them to self regulate and Collaborative Learning, where a group of peers strive to understand each other and work together to learn specific knowledge and skills.

This theory is governed by various principles aimed at enhancing the child's learning experiences. The principle of value which states that each child is a unique individual who learns distinctively. Therefore, learning should be planned in line with the child's unique developmental abilities. Secondly, the principle of knowledge which states that learning is an ongoing process occurring in a social context only. Thirdly the principle of learning which states that learning should be planned in line with the child's maturational or developmental needs (1978).

The child's Zone of Proximal Development (ZPD) which is the child's level of development as determined by the child's ability to solve problems independently and the level as determined by the child solving problems under the guidance of an adult is greatly enhanced when the child is in interaction with a More Knowledgeable Other (MKO). The social environment in the school must be created for individual instances. Concerning the education of children with special needs (disability), Vygotsky (1987) pointed out that changes in the context of education may have profound consequences for the child's developmental process. Children with disabilities therefore, should be included in the general education classroom and not separated into self-contained classrooms, because he felt that those children who were educated separately from the "normal children" would not grow in a beneficial manner. He further says that a child impeded by disability is not a child less developed but has developed differently. Therefore, this theory is relevant to this study because it addresses a number of the independent variables of this study such as:-

- **Nature of Teacher Training**

  Vygotsky (1978) defined those who teach as the "More knowledgeable other" (MKO). An MKO, is a person who should have a better understanding or higher ability than the learner, in regard to a specific task, concept or process. Secondly, the teacher should guide learners and raise their competence through the Zone Of Proximal Development.

To do this, the teacher has to break complex tasks to small subtasks and make learning easy and enjoyable. This controls learners from becoming frustrated with difficult tasks. The teacher has also a collaborative task of developing and guiding the child's activity by grouping a less competent learner with a more competent one. This enables the competent learner to raise the competence of the less competent learner.

The teacher should also provide many opportunities for learners to apply their previous skills, knowledge and experiences with 'authentic' activities connected to real-life environment. Since each child is unique and learns distinctively from others, the teacher has to plan for individualized educational programmes, design ideal methodologies and use developmentally appropriate language which are culturally oriented. To achieve these roles effectively, the teacher needs specialized training in handling learners with special needs (Vygotsky, 1987).

❖ **Instructional methods**

Vygotsky advocated for methodological procedures for teaching in a classroom. As such Vygotsky looked at each child as a unique individual who should learn distinctively. Therefore, the knowledge and skills one learns have to be in line with their individual needs and differences. This caters for individual educational need which is an ideal principal for early identification and eventual intervention of children with learning disabilities.

Vygotsky (1987) stressed the importance of using children's past experience (what they know) to enable them make sense of the new knowledge, situation or experiences. A child with learning disabilities shows symptoms of poor memory of what is learnt. Linking daily experiences to new knowledge enables them to not only make sense of the new experiences but also remember easily as it has become meaningful to them.

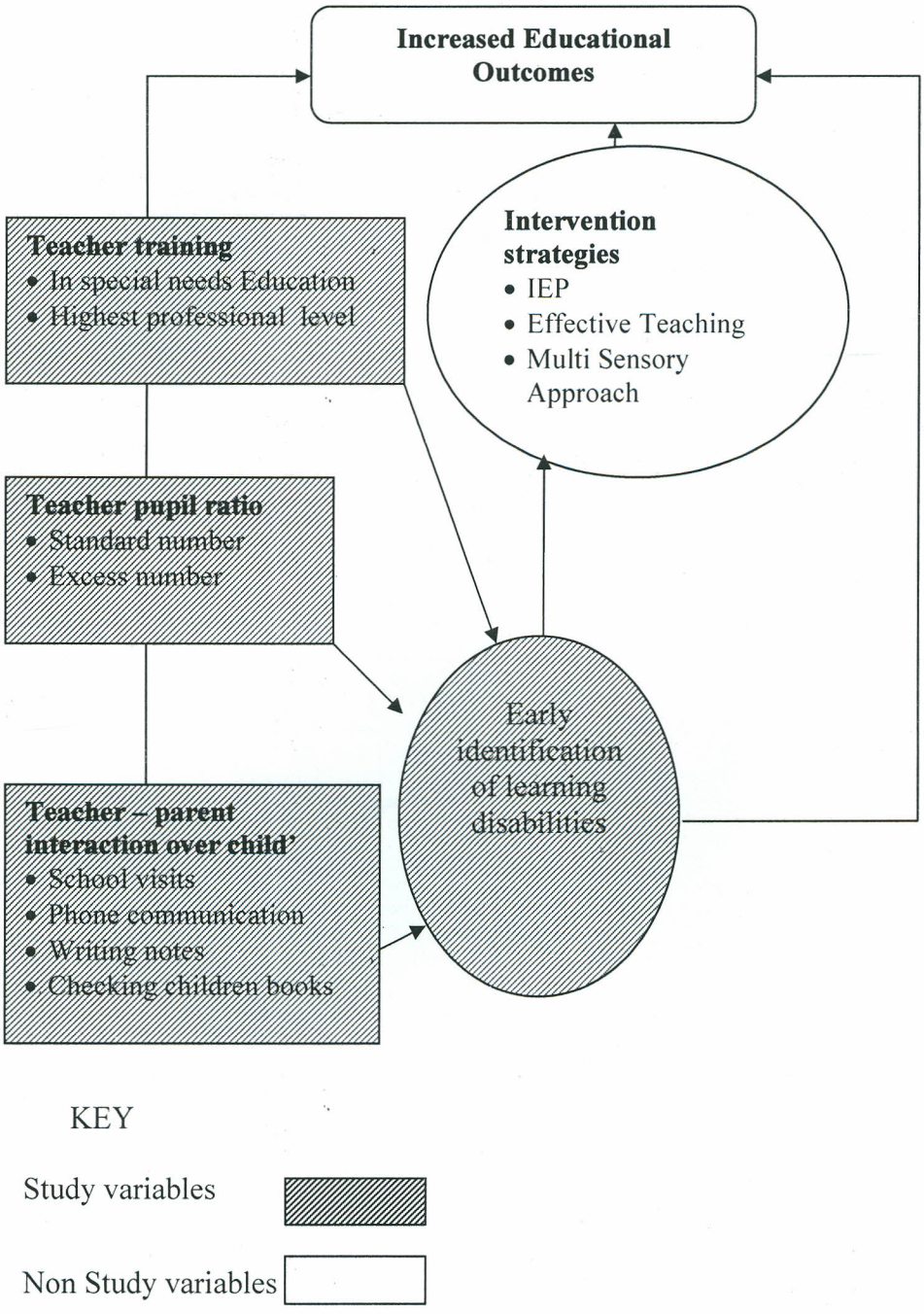
According to Vygotsky (1987) when a more competent learner is paired with a less competent one, the competent learner elevates the competence of the less competent learner. This promotes sustained achievement and cognitive growth for the less competent learner. Also, by imitation the child experiencing learning difficulties in areas like oral language can imitate the competent one and improve in their oratory skills.

Instructed learning involves a learner remembering the instructions of the teacher and uses these instructions to self regulate. Through instructed learning, a teacher empowers the learner to accomplish a task that he/she cannot do alone without the help of a skilled person (teacher). Therefore, instructed learning helps a child with learning disabilities to do things systematically or logically and even recall what is learnt easily. Guidance reduces failure in task accomplishment and this boosts the child's self esteem and competence skills needed to overcome the social stigma of learning disabilities.

In conclusion, this theory is ideal for this study as it addresses the variable of training as an important ingredient in the process of early identification and intervention of learning disabilities. The teacher being more knowledgeable in the areas the child is weak will scaffold the child with learning disabilities and raise their competence in the areas of weakness. On pupil-teacher ratio, the theory advocates for a close interaction between the teacher and the child for the teacher to observe and note the learning difficulties the child is undergoing. There is need therefore, to ensure teachers handle fewer children for easier identification of learning disabilities. Concerning children with learning disabilities, the theory looks at them as learning differently and not less developed. Therefore, given early identification and intervention, a child with learning disabilities learns and succeeds just like the peers.

1.9.2 Conceptual Framework

Figure 1.1: Conceptual Framework on factors influencing early identification of learning disabilities leading to intervention for increased educational outcomes.



From the above conceptual framework diagram, the learning disabled children's educational outcomes are increased when there is early identification of learning disabilities leading to early intervention. Different factors also influence early identification of learning disabilities (Source; Author's interpretation from the literature review).

1.10 Definition of Operational Terms

Nature of Teacher training in special needs Education - This refers to the level of training the teacher has undergone to handle learners with special needs.

Teacher-pupil ratio - This refers to the number of children the teacher is handling per class.

Parent-teacher interaction - It refers to the parents' visits to school, calls made to the teachers, notes written to the teacher or vice versa over the child's academic work.

Learning Disability - This refers to a state in which a child who seems bright and capable of good performance like peers of same age/ability and who performs well in other subjects, experiences an unexpected failure in maths and English language. This failure occurs even when the peers seem to do well under similar circumstances.

Early Identification of Learning Disability - This refers to the teacher's ability to determine or note a specific learning disability a child has during early years (below 9 years) for effective intervention.

Early Intervention - This refers to aligning the child who was learning disabled to specialized education programmes to help him/her overcome the effects of the disability.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents literature review which includes; the definition of learning disabilities causes for learning disabilities and kinds of learning disabilities. The chapter also describes the identification strategies and selective factors influencing early identification of learning disabilities and a summary of the literature review.

2.1 Definition of Learning Disabilities

Learning Disability is a hidden form of disability because a child with learning disabilities might exhibit problems in reading similar to a child with visual impairment, have problems in paying attention like a child with hearing impairment and needs practices or repetitions like a child with mental impairment (Chadha, 2001). Therefore, there has been a long metamorphosis not only in formulating a universally acceptable definition but also to get a clear-cut distinction between a child who has learning disability from other closely related impairments such as :- Visually, hearing or mentally impaired learners.

The term learning disability gained rapid acceptance in the 1960s and 1970s because it helped in not only addressing the needs of parents and other professionals, but also helped in classifying and meeting educational needs of children whose failure could not be attributed to visual, mental or learning impairments. These children were disenfranchised from special education services and hence their educational needs could not be fully met (Education For All Handicapped Children, 1975 ; Zigmond, 1993).

Children with "Unexpected Underachievement, in listening, speaking, reading, writing or developing adequate mathematical skills even when there was adequate opportunity to learn were also considered to have learning disabilities. Later on, children who experienced difficulties were called Learning Disabled (Kirk, 1962).

Learning disability is a condition in which there is a significant discrepancy between what the child has the potential to do and what they are doing. The child has problems in gathering and processing information accurately, has difficultly with listening, reading, speaking, writing and or performing mathematical operations (www.wplc.org). This disability results to the child being unable to perform/achieve consumerate with his/her age and ability levels in language or mathematical operations. The child has a severe discrepancy between his/her achievement and intellectual ability in oral expression, listening comprehension, written expression, basic reading skills, reading comprehension, mathematical calculation or mathematical reasoning (Chadha, 2001 ; Mercer,1991 & 1992). Therefore, the child may be slow and lag behind other children of his/her age and class. Learning disability is "Unanticipated learning problems in a seemingly capable child."

The child is retarded or has developmental delay in one or more of the basic psychological processes of speech, reading, spelling, writing or arithmetic resulting from a possible cerebral dysfunction but not from mental retardation, sensory deprivation, cultural or instructional factors (Kavale & Forness, 1995 ; Kirk,1962).

Kirk (1962) further noted that learning disabilities (LD) represented an amalgam of disabilities given a single label. These cause a discrepancy between a child's achievement and his/her apparent capacity to learn. To achieve uniformity in the definition of the term learning disability, various legislations have been enacted especially in the United States.

For example; the Education For All Handicapped Children's Act (1975); Public Law 94-142, the Individuals with Disabilities Education Acts (IDEA; 1990; Public Law 102-476; IDEA, 1997 Public Law 105-17 and the current IDEA, 2004; Public Law 108 – 446).

According to IDEA (2004) "Specific Learning Disability" is a disorder in one or more of the basic psychological processes involved in understanding, using language; spoken or written. The child manifests an imperfect ability in listening, thinking, speaking, reading, writing or spelling words and doing mathematical calculations.

Other organization's aiming at making universally acceptable definitions were; Interagency Committee on Learning Disabilities (ICLD) and National Joint Committee on Learning Disabilities (NJCLD) (Learner, 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 Mathematical calculations which is intrinsic to the child (NJCLD, 1997) and a state in which the child has difficulties in listening, speaking, reading, writing, reasoning or doing mathematical calculations (ICLD, 1988).

The U.S. Office of Education (1977) defined Learning Disability as a state in which the child does not achieve a proper age and ability levels in one or more specific areas even when provided with appropriate learning experiences, has a severe discrepancy between his/her achievement and intellectual ability in one or more of these seven areas;- oral expressions, listening comprehension, written expression, basic reading skills, reading expression, mathematical calculations and or mathematical reasoning. The definition excludes problems that are primarily caused by visual, hearing, motor disabilities, and mental retardations emotional disturbances, environmental, cultural or economical disadvantages.

In summary, Learning Disability:-will refer to a state in which a child who seems bright and capable of good performance like peers of same age/ability and who performs well in other subjects experiences an unexpected failure in maths and language. This failure occurs even when the peers seem to do well under similar circumstance. A child with learning disabilities has a basic psychological processing deficit, has difficulty in academic and learning tasks and shows discrepancy between their potential and achievement. The under achievement is not as a result of a visual, auditory, emotional, social, cultural, economic and mental problems (Chadha, 2001; IDEA, 2004; Learner, 2006).

2.2. Causes of Learning Disabilities

There is little agreement on the causes of Learning Disabilities, neither is there any single or a primary cause for the condition. Some people argue that the condition is extrinsic (lies in the child's environment; inappropriate instruction, lack of ideal reinforcement) and others say it is intrinsic (Lies within the child). However, the definition of the condition implies that it is related to the central nervous system (Basic neurological processing disorder). The neurological processing disorder could be due to; pre-natal, peri-natal and post-natal factors. When the child is in the mother's womb, the basic neurological processing deficit can be caused by the mother's use of unprescribed drugs, excess alcohol consumption, Malnutrition, Rubella (German Measles) or suffering from severe fever/sickness till she cannot physically move and emotional instability (Chadha, 2001).

During birth, anoxia (Lack of oxygen) due to prolonged labour, injury the child may incur as it passes through the birth canal or injury due to delivery instruments like forceps could also cause Learning Disabilities. After birth, the child can get a neurological deficit due to low blood sugar (Hypoglycemia), malnutrition, food allergies (especially sugar, eggs, wheat and

chocolate), hyperactivity caused by food substances e.g. artificial colour or some chemicals in fruits, use of unprescribed drugs, accidents and trauma to the brain (Chadha, 2001: Learner, 2006).

2.3 Prevalence of Learning Disabilities

Studies indicate that children with learning disabilities form 6% of all school age children in the U.S. They also form approximately one half of all children receiving Special Education Services (Learner, 2006; Lyon, 1996).

Moreover, other research studies indicate that about 5 -20% of the total number of children in public primary school populations have learning disabilities. Further studies estimate that between 1-30% of the total school population suffer from learning disabilities. The prevalence rate is estimated to be between 7-15% (Chadha, 1995; Gearheart, 1985 ; Learner, 1995 ; Mercer, 1991 & US Office of Special Education, 1989).

In India, research studies estimate that 4–15% of school going children have learning disabilities. 10–15% of all children receiving elementary (Primary) Education have learning difficulties which constituted the biggest chunk of school drop outs. This is to say that India which has a population of 300 million people risks having between 18-20 million children with learning disability (Gearheart, 1985 ; Pandey, 1995).

However, the studies reviewed do not show the prevalence of learning disabilities in Kenya. The studies only indicated the existence of a Kenyan Institute charged with the task of developing programs on special needs and managing educational assessment resource centers country wide. Much achievement had been realized in the areas of mental, visual, physical and hearing impairments as compared to learning disabilities. This was easily inferred from

the level of assessment included on assessment tools. The tools only looked for the existence of language or maths difficulties, the time the disability was noted and family history (K.I.S.E, 2002). Hence the need to investigate if there is early identification in Butere, methods used, status of learning disability children and selective factors influencing the same.

2.4.0 Kinds of Learning Disabilities

Research studies indicate that 70 percent of children considered being with learning disabilities experience problems in language acquisition and use. Other studies indicate that about 26% of children with learning disabilities exhibit problems in Maths. Therefore, children with learning disabilities manifests problems in language and/or Maths (Cass & Jackson, 2003 ; Lyon, 2001)

2.4.1.0 Mathematical Disabilities

Some of the children experiencing Maths difficulties may do well in languages but not Mathematics and quantitative learning. They experience problems in Mathematical Calculations and mathematical reasoning. They constitute 26% of all children with learning disabilities (Cass, Cates, Smith and Jackson, 2003 ; IDEA-2004).

Maths disability starts in early years and continues if the child is denied a chance to count, match, sort and group objects, compare and understand one-to-one correspondence and continues through secondary school. This makes the child fear maths and become confused (Butter & Miller, 2003; Cass & Jackson, 2003 ; Cawley and Foley 2001 ; Miller & Mercer, 1997 and Shalev & Manor ,1998). Maths disability manifests in different forms such as: Computational and conceptual (reasoning) problems.

2.4.1.1 Mathematics Calculation/Computations Problems

A child with learning disabilities will experience these problems: - Inability to put together (add), putting away (Subtracting), dividing (sharing) and multiplication. The child fails to apply mathematical rules, does not finish problems, cannot read multi digit numbers, cannot differentiate between numbers such as 6,9,2,5, cannot differentiate between coins of various values, cannot copy numbers or symbols well, has problems with oral drills, doing word problems, writing numbers from dictation and writes numbers illegibly. The child is very slow and inaccurate, has problems telling time and has problems solving multi-step problems. The child is unable to correctly use arithmetic vocabulary, manifests a lot of careless computational mistakes, is disinterested and easily gives up in solving Maths problems (Chadha, 1999 ; 2001; Gearheart, 1985 ; Lerner, 2006; Lyon, 1996 ; Mercer, 1992).

2.4.1.2 Mathematical Reasoning/Conceptual Problems

The children with learning disabilities manifest these intrinsic problems:- poor understanding of questions, poor shapes discrimination, poor quantity discrimination, poor spatial orientation, poor mastery of Maths concepts, unable to perceive distance between numbers on a ruler, unable to distinguish between; up-down, over-under, top-bottom and high-low. The child cannot also count objects in series without grasping them, cannot perceive shapes as complete entries and has poor number recognition (Learner 2006; Thornton, 2001; Vande Walle, 2004).

Children having Learning disabilities have a poor sense of time and direction, they easily get lost and cannot find their way home from school and have poor time estimation. They are also poor in abstract thinking, sequencing items and establishing relationships such as: big, small, more and less. They are poor in following procedures and respond quickly but

wrongly in oral drills. These children also rub their work regularly, do not attend to details in solving problems and lack interest in maths activities (Learner, 2001; Gearheart, 1985; Lyon, 1996 ; Mercer, 1992).

2.4.2.0 Language Disabilities

The children who experience extra-learning difficulties in language will manifest these signs-have poor/oral/expressive languages, poor listening comprehension, poor basic reading skills, poor reading for comprehension and poor written expression. This forms about 74% of all children with learning disabilities. These children experience difficulties in all areas (Gearheart, 1995 ; Lerner, 1995; 2006 ; Lyon, 1995 ; 1996).

2.4.2.1 Oral/Expressive Language

Children with oral language problems have problems with pronunciation, vocabulary and experience trouble finding the right word. They may also have difficulty in expressing self in conversation. These children also exhibit grammatical errors or incorrect word order and may be slow in responding verbally. They are unable to formulate complete sentences, forget words but remember sounds (Chadha, 2001 ;Gearheart, 1985 ; Learner, 2006 ; Fey & Windsor, 1995).

2.4.2.2 Listening/comprehension

The child with listening problems is unable to follow routines and direction, does not gain information from teacher or lecturers and may be slow in responding verbally. The child has difficulty expressing self in conversation and has difficulty responding to and formulating questions. The child cannot understand meaning of even single word, has problems with long sentences and may not remember a word in context for example 'sit' on the chair. The child

repeats words like a parrot without understanding meaning and cannot discriminate tone/pitch or sounds (Chadha, 2001 ; Linder, 1983).

2.4.2.3 Basic Reading Skills and Reading Comprehension

A child who has poor basic reading and reading comprehension skills will manifest these problems:- low achievements in all subjects, does not read as expected, has severe reading problems, does not read willingly or fluently, reverses letters 'b" and 'd" words 'was' and 'saw' frequently, reads words inconsistently for example 'girl' as 'gril' omits or repeats words when reading passages, has trouble following oral or written instructions, does not focus on one word where there are many words, has poor sense of sentence structures, does not combine sounds to form words for example b-a-t as 'bat' but can repeat if someone else reads the word. The child breaks words into many parts, has poor oral reading ability, dislikes reading, cannot retain information read, cannot evaluate or interpret the content of what he or she has read. The child cannot also retell a story which he/she has read and has poor left to right orientation (Chadha 2001; Gearheart 1985; Lerner 2006).

2.4.2.4 Written Word Expression

Children experiencing written expression difficulties constitute 8-15% of the total number of pre-school children in the US and manifest the following problems;- Grasps pencil awkwardly, reverses letters 'b' and 'd', does not copy print correctly, has poor sentence structure and organization, spaces letters either too close or far, experiences grammatical and punctuation problems, incorrect words order, cannot organize and write their thoughts, has problems with sequencing for example, a story in picture form. The child does not enjoy writing and writes poorly, poor in written expression, untidy in their work and poor in paragraph formation (Chadha, 2001; Hooper, 1994 ; Lyon, 1996).

2.5.0 Identification of Learning Disabilities

Learning disabilities is also a hidden and controversial form of disability that may need specialized means of identification (Chadha, 2001). Hence the divergent ways of identification.

2.5.1 Differential Diagnosis

Learning disability is hidden and may manifest itself like other commonly known disabilities for example visual, hearing and mentally retarded. Hence, the need to differentiate a child having learning disabilities from a hearing, mental and visually impaired child (Chadha, 2001; Geartheart, 1985).

2.5.1.1 Learning Disability in Comparison to Visual Impairment

A child with LD can read both large and small print unlike the visually impaired who only reads large print or Braille alone. However, the LD child reads with behaviors such as frequent reversals, omissions, insertions and substitutions. The child with LD can read but not willingly or frequently unlike a VI who have problems with eyes and may not read at all. A child with LD keeps the book at a normal range but a VI keeps the book too close or far. An LD child moves constantly unlike the visually impaired who has problems with motion. A child with LD will not stumble on objects/people but a VI child bumps into people or objects. Also a VI constantly asks others what is written on the chalkboard unlike the child having LD who sees normally (Chadha, 2001).

2.5.1.2 LD in Comparison to Hearing Impaired

A HI child has problems with listening and reads the speaker's lips to understand whereas a child having LD is only distracted and may easily look at a wrong stimulus for example a teacher's necklace and not color of the pen he/she is displaying. Secondly, a HI will have

limited language but a child with LD might have or not have limited language and will be hyperactive changing from one activity to another, while a HI looks lost, not hyperactive and may not grasp ideas because of limitation in hearing (Chadha, 2001).

2.5.1.3 LD in Comparison to Mental Retardation

A child with LD might or might not have delayed milestones like an MR who has delayed milestones such as delayed sitting, walking and talking. A child having LD might not read but can understand the word from an explanation unlike an MR who can read but cannot understand the meaning. An MR will not understand abstract concepts and has a short attention span whereas a child with LD can easily understand abstract concepts and might or not have short attention span because they have average or above average intelligence unlike the MR, who has a sub-average intelligence.

Furthermore, a child with learning disabilities might have a problem in one area such as reading, writing or arithmetic's unlike an MR who has difficulties in comprehending all areas–academic and non–academic. A typical LD experiencing child might only have problems in written language than spoken language unlike a mentally retarded child who exhibits problems both in spoken and written language (Chadha , 2001).

All children might not show all these symptoms, but if they show any four of these, then care should be taken to differentiate learning disability from visual, hearing impairments and mental retardation (Chadha, 2001).

2.5.2 Criterion Tests

A criterion test is a standardized test used for checking a student's or a learner's progress against some established criterion, for example a child may be asked to spell ten words of which a teacher expects a criterion of seven. The performance is measured in terms of actual

skills or tasks performed and compared with criterion to see whether or not the students can achieve the criterion. These assess progress on a span of skills or specific skills. The criterion tests include work sheets formed to sample a child's academic work but can also sample student's behavior for a specified period of time. The child works on the worksheet for some time and the teacher notes the rate of correct and incorrect responses and the error patterns.

2.5.3 Recognizing the Student's Strengths and Clusters of Characteristics

Children with LDs have much strength, for instance, some might do well in maths or computer applications but have problems with reading skills. Some have strong social skills and acquire many friends. Others do well in artistic and creative endeavors, and some excel at physical activities and sports. It is important to recognize the child's strengths, and to use them when designing their teaching plan. It is also helpful to look for clusters of characteristics when evaluating a child with LD. For example, a child with severe hand writing problems may also have difficulty with other fine-motor skills. A child with reading problems may also have underlying oral language disorder. A child who is poor in expression may have a history of delayed speech, speech-motor difficulties that affect articulation, and difficulty with remembering words (Chadha , 2001 ;Gardner,1999 ; Levine, 2002 ; 2003).

2.5.4 Considering the Concerns of Parents

Internationally, the U.S, Government has formulated policies like, IDEA-2004 which stress the importance of strengthening the role of parents and ensuring that families have meaningful opportunities to participate in the education of their child at home and at school. The law recognizes the key role that parents have in their child's education.

In Kenya, parents too have a role to play in their children's education. No assessment can be done without involving the parent and parent's concerns on the child's learning forms a basis for assessment as a means of determining the eligibility for child's learning disability status (Chadha, 2001 & K.I.S.E, 2002).

2.5.5. Checklists

A checklist comprises of a series of statements to provide information about the studies. Checklists are flexible and can be used in any area of learning disabilities such as reading, writing or arithmetic. They can also be useful in monitoring the academic achievement of students (Chadha, 2001; K.I.S.E, 2002; Learner, 2006)

2.5.6. Direct Observation

Careful observation of students in a class is very valuable. When walking around the classroom and checking their work, a teacher can note a child performing maths and detect any trouble the child has. These observations can be used in any area of concern to paint an overall picture using words about a child and suggest a beginning point for making remedial measures. In Kenya, a rating scale is used to conduct a systematic observation in different situations to know the child's areas of strength and difficulties (Chadha, 2001; Learner, 2006; K.I.S.E, 2002).

2.5.7. Assessment

Parents, Federal State, Legislators, Executive Leaders and the General public want to know the extent to which students with special needs are profiting from their school experiences. The schools are increasingly being held accountable for the performance of the children (Salvia & Yselldyke, 2004).

Hence, the need for early identification and intervention of learning disabilities. Assessment is the process of collecting information about a child and using it to make judgments and decisions on their educational needs. The assessment process involves screening which is a cursory evaluation done to ascertain which student needs intensive evaluation; referral which involves seeking additional assistance from other professionals concerning the child with learning problems, classification meaning categorizing learners basing on their disabilities; instructional planning which includes formulating instructional and specific learning plans for the disabled child and monitoring, meaning continued reviews of the students to establish the level of rehabilitation.

Assessment can be undertaken using two models: discrepancy between achievement and intellectual ability method and the responsive to intervention Method

(Fletcher, 1994; Learner, 2006).

In Kenya, assessments are done basing on parent's concerns about the child's seemingly areas of learning difficulties or teachers' observation of the child's actual or anticipated failure in some specific areas (maths or language). The teacher then informs the parents to visit the EARCs for further assessment. Individualized Educational Programs are then designed for the child to address the specific area of learning difficulty (K.I.S.E, 2002).

2.5.8 The Discrepancy Method

Here the LD is identified if the child has a severe discrepancy between the score of intellectual ability and the score of achievement in oral expression, listening comprehension, mathematical calculation, or mathematical reasoning and written comprehension. This involves comparing a student's standard achievement in a test (for example, Reading

Achievement test) to the child's capacity of learning derived from intelligence test or cognitive ability test. A difference between these two scores indicating 1.5 - 2.0 standard deviation indicates the presence of a learning disability in the child and is eligible for special services in the U.S.A. Discrepancy score is a mathematical calculation for qualifying discrepancy between achievement and intellectual ability or potential of the learning disabled child (Salvial/Ysseldyke, 2004).

However, there are a few concerns on the use of this method: - There is need to combine the quantitative and qualitative information about the child. Many parents in the U.S say the discrepancy score alone ignores the clinical judgments and actual experiences when interacting with the child (Chalfant, 1989 ; Mastropieri, 1987).

The discrepancy scores also ignore learning characteristics that are unique for individuals within hours and does not consider many significant human and clinical factors. However, the clinical judgment of the evaluation team can override discrepancy scores in determining a child with LD.

Secondly, many people argue that IQ tests do not necessarily measure intelligence, Moreover, IQ scores can be adversely affected by the child's culture or native language and the child can have a low IQ due to the nature of the disability (Fletcher, 2004). The discrepancy score method implies that the child must fail before they can be identified as having LD. This might delay intervention and eventual rehabilitation.

Finally, the discrepancy formulae vary from state to state. States and school districts differ in their discrepancy formulae for identifying LD. Thus, a child could be identified as having LD in one state but may be declined for services after moving to another state. Hence, delaying early identification and intervention of learning disabilities and thus aggravating the effects

of the LD which makes this a golden opportunity of excelling in academics like other children of their age.

According to Fletcher (1994), in the U.S, a child who displayed a gap or discrepancy between their measured IQ and their achievement in oral language, reading, writing and/or maths were viewed as not achieving at levels consummate with their potential and hence considered having learning disabilities. Its use commenced in 1977 shortly after the passage of EAHCA, to "objectively and accurately" distinguish the child with LD from children with other academic deficiencies (E .H.C, 1997).

However, this criterion classified low-achieving children (LDs with unexpected underachievement) and with those who simply underachieved. Researchers and clinicians advocated for the need to distinguish between low achievers (with mental limitations) from those with normal intelligence but performed poorly.

This measurement too cannot be relied on because the child must fail or fall below a predicted level of performance before being considered for intervention. Also reliable achievement failure sufficient to produce a discrepancy from IQ cannot be reliably measured until the child is 9 years. This model constitutes a "trait to fail' notion, which can cause lifelong devastating consequences. According to Learner (2006) Ideal identification and intervention should be done during the first 9 years of learning (Learner, 2006, Dorris, 1993 ;Francis & Shaywitz, 1994).

2.5.9 The Responsiveness to Intervention strategy (RTI)

In the U.S according to the IDEA (2004), an RTI's strategy is used as a remedial intervention that also generates data to inform instruction and identify students who may require special

education and related services. Today, many educators, researchers and professionals are exploring its usefulness as an alternative approach that can provide data for more effective and earlier identification of students with LD and a systematic way to ensure students experiencing educational difficulties receive more timely and effective interventional service. (Gresham, 2002; LDRT, 2005; NRC 2004, ; PCENE, 2002).

According to this strategy, a student qualifies to be having LD if he or she has a significantly low achievement with insufficient response to intervention. This student who is regarded as being at risk for LD in turn possibly needs special education and related services (Fuschs, & Speece, 2002). A student without disabilities will make satisfactory progress when provided with quality instruction and remedial services.

The core concept of an RTI approach is the systematic application of scientific research based interventions in general education, measurement of students' response to this intervention and using the data to inform instruction.

The consensus of the 14 organization forming the 2004 LD Round Table (A collaborative work group formed to give recommendations and comments on IDEA (2004) regulations for identification and illegibility of LDs) stated that data should include; High quality research based instruction and behavioural support in general education, Scientific research based intervention focused specifically on individual students difficulties and delivered with ideal intensity, use of a collaborative programme between the staff for developing and implementing intervention process, data based documentation reflecting continuous monitoring of student performance and progress during the intervention.

Documentation of parent's involvement throughout the process, systematic assessment and documentation that intervention used were implemented with fidelity and Documentation of

the time lines described in the federal regulation be adhered to unless extended in written form by the child's parent and team of qualified professionals

In Kenya, the Government through, the Kenya Institute of Special Education (K.I.S.E) which was established through Legal Notice No.17. In 1986 has undertaken to; - Implement Government policies regarding Special Needs Education, develop programmes related to Special Needs Education and run a functional and educational centre for training and intervention for persons with special needs. The institution has ten departments. One of which is referred to as a department for "Intellectually Different". This trains teachers and other personnel on how to work with children who have: Mental Disabilities, Learning Disabilities or are Gifted and Talented. There are several possible ways of perceiving eligibility for a learner who is learning disabled and thereby forming basis for further assessment to determine eligibility and eventual intervention (KISE, 2008).

2.5.10 Case History

This involves getting information about the child's historical background and development. This may include; any learning problems other members of the family may have had; specific learning disability may be inherited, pre-natal experiences, both conditions, experiences after birth such as accidents, illness or malnutrition and age at which the child acquired various developmental milestones. For example; sitting, standing, and talking,s among others.

Parents or any close care giver may be given the needed information. The main purpose of case history is to provide an indication of learners who may be at risk of developing L.D. This information is important because it forms the basis for further assessment to determine the child's legibility for L.D and thereafter offering early intervention (K.I.S.E, 2002).

2.5.11 Informal Testing

Following the information collected in the child's case history, observation and general tests, a teacher designs a test covering all the skills the child is supposed to cover in the area they are failing continually (Maths or Language). The test is then administered to all children to avoid causing unnecessary attention to the child. The child's behaviors during the test and time taken to complete the test are noted. The result of this test enables the teacher to design a test addressing the child's specific learning difficulties. A criteria for a pass is determined. This enables the teacher to know the level at which the child is performing in specific skills in comparison to other children of the same age/ability. Early intervention programs can then be designed.

2.5.12 Parents Concerns

Some parents who suspect that their children are not performing some activities as to their age or abilities, consult teachers and Educational Assessment and Resource Centres (EARCs) for further assistance in determining the child's Learning Disability status (K.I.S.E, 2002; 2008).

2.6.0 Selective Factors Influencing or Hindering Early Identification and Intervention

There is no shortage of horror stories about the misidentification of LD and reports that the category is seen as a "catch all" for any youngster who is not meeting the expectation of parents and teachers (Lyon, 1996). There are several reasons for these and these are presented in the following section.

2.6.1. Teacher Training in Special Needs Education

Studies indicate that intensive instruction of appropriate duration provided by a trained teacher remediate the deficient reading skills of many children with learning disabilities. The success of even the best-designed reading intervention program is highly dependent upon the training and skills of the teacher. If phonological awareness problem is identified early and taught by expert teachers, children having learning disabilities in language will eventually perform well not only in the middle classes but also in the high school years (Lyon, 1989; 1996; Adams, 1995).

Many children who can learn normally if taught by appropriate methods end up being considered learning disabled because they are not taught using appropriate methods and hence they do not receive proper instructions. The study shows that most teachers are not trained to address individual learning differences, to study and apply research (Lyon, 1996). In the U.S, studies have found out that most regular classroom teachers feel they are not prepared to address individual differences in learning abilities within classroom settings.

Further research findings reveal that even special educators themselves do not possess sufficient content knowledge to address the language and reading needs of children with Learning Disabilities. Without adequate preparation, teachers have a tendency to refer children for specialized assistance because they feel ill-equipped to provide the necessary early identification (Lyon, 1989; Moats, 1994; 1996).

Therefore, teachers must be equipped with critical academic content, pedagogical principles and knowledge of learner characteristics that they need in order to impart systematic and informed instruction to their children with LD for effective rehabilitation/intervention. Intensive instruction of appropriate duration provided by trained teachers to children with

reading disabilities, were able to remediate reading skills of many of the children. This intensive treatment approach improved the reading skills of the children from an initial reading score of 77 to 98.4 on a measure of alphabetic reading skills. The success of even the best-designed reading intervention is highly dependent upon the training and skills of the teacher (Adams, 1995; Alexander, 1991 ; Foorman, 1995 ; Hall, 1999 ; Lyon, 1989; Moats, 1996 ; Torgesen, 1995; Wood, 1991).

Teachers remain seriously unprepared to address individual differences in many academic skills and particularly in reading. However, teachers cannot be expected to know what they have not been taught and clearly shown in the teachers training colleges. Therefore, as such they cannot offer successful early identification and eventual intervention to learning disabilities (Lyon, 1996).

There is need for the Kenya Government to train all regular school teachers in special needs education to make them confident and competent, to enable them enroll children with LD without reservations (Brich, 1974 ; Brooks & Bransford, 1971).

Training will also improve the teacher's professional attitudes, skills and knowledge in offering early identification and intervention. A teacher trained in special needs education will use child centered approaches which in turn will make children joyful as they learn (Copple, 1991 ; Dyer, 2003). This in turn enhances holistic development among the LD children.

Therefore, teacher training is measured in terms of the teacher's specialized training in Special Needs Education and level of training of the teacher. Training empowers the teacher with skills and knowledge to identify the special educational needs of the child, make appropriate curriculum adaptations and adopt several techniques such as, peer tutoring, co-

operative learning, task analysis and multisensory approach to ensure that the learning needs of a learning disabled child are adequately met (Chadha, 2001).

2.6.2. Teacher – Pupil Ratio

Studies indicate that one-to-one interaction learning between a pupil and a teacher leads to substantial improvement in the learner's achievement. Students with learning disabilities need one to one instructions. This individualized instruction improves their performance. The smaller the class a teacher handles, the more they are empowered to cope with these challenging tasks (Chad, 2007 ; Learner 2006 ; Slavic,2000 ; Vaughn ; Garsten, 2003).

Close teacher to pupil interaction play a vital role in shaping what children learn (Gullo, 2006). Close contacts provide the teacher with opportunity to provide his children with varied level of support to help them learn new concepts which appear challenging but achievable (Bred camp & Copple, 1997).

Studies also indicate that teachers in schools enrolling a large percentage of children have less personal contacts with them. Learning strategies and programs that were found effective in helping the children in reading become good readers; required low teacher student ratios, highly trained personnel and high level of instructional intensity. There is a pressing need for early intensive, empirically based interventions to be made readily available to children through general education (Gullo, 2006 ; Lyon, 1996).

Research has found out that effective early identification and intervention requires low teacher-pupil ratios. This in itself will ensure a quick remedy to reading problems. A small class is easy to manage and still maintain close contact with each individual child for easier identification and intervention of Learning Disabilities. In many schools of Kenya, the lower

classes and some ECD centers are overcrowded, some with as many children as 60 per class. A child with special learning needs cannot receive adequate attention from the teacher (Lyon, 1996; Ndani, 1994; The Standard, 12th July, 2006: 12).

This hampers early identification and intervention thereby denying the children relevant education, skills and a chance to compete fairly in the world like other children. The government must therefore employ and post more teachers to primary schools to decongest the classes and reduce high teacher-pupil ratio.

2.6.3. Parents-Teacher Interaction Over The Child's Academic Work

Benefits of parent–teacher partnerships are clear. There is a positive association between success in school and parents participation in children's education. Teacher–parent interactions also bridge between home and school. They give an opportunity for teachers and parents to work together to enhance the child's academic progress (Learner, 2006; Mcwayne, 2004).

The reciprocal exchanges enable the teacher to learn about particular families because there are profound individual differences across families in any cultural group. This controls teachers' assumptions and actions based on stereotypes. Teachers are likely to learn risk factors linked to children's academic gaps in schools. When communicating with parents, teachers will emphasize the importance of parental participation in their children's education and thus creating a successful transition of home-school (Lynch & Hanson, 2004 ; Pianta & Taylor, 1999 ; Seefeldt, 1998).

Teacher-parents relationships can be strengthened when teachers conduct individual meetings with parents and connecting with families through personal visits. Generally,

research studies indicate that parents engaged in positive relationship with their children's teachers, made their children get high academic scores and were well adaspted to pre-school. In standard one, these children exhibited fewer behaviour problems. How a teacher relates to a parent greatly influences how the teacher handles children in class (Cowan, 2005; Gakii, 2003). Therefore, good parents-teacher relationship is important in shaping the child's future academic achievements.

Teacher-parent collaborations over the child's academic work are done through written notes, parental involvement in classroom and extra curricular activities. Seminars, telephone conversations and email messages also play a crucial role in helping the LD child not only to emerge from school academically, emotionally and socially competent but also prepared for future life challenges (Turbull , 2004).

The relationship is enhanced through classroom based newsletters, parent–teacher meetings (Conferences) notes and phone calls and handouts on how to extend curriculum activities at home. The associations are measured as high or low level involvement in children's education. The frequency is measured as, never, rarely, sometimes, often and very often (Diffily, 2004).

2.7 Importance of Early Identification and Intervention

Research studies indicate that 74 percent of children identified as having learning disabilities especially in the area of reading problems at the age of 9 years and above, remain with these difficulties through primary to high school. Early identification and intervention programmes reduce the number of children experiencing learning difficulties in the area of reading difficulties by 70 percent. Furthermore, early intervention enables children who are

considered learning disabled to maximize their potentials in life just like 'normal children' (Lerner, 2006; Francis & Shaywitz, 1994).

Early identification also reduces the number of children with learning disabilities to be referred for special education and related services in the future and enables the children to grow up and become useful and productive members of the community. Early identification enables parents of the learning disabled children to align them to existing intervention programmes which in turn rehabilitates them academically by preventing many reading problems that these children experience (Guralnick, 1997 ; NRP, 2000 ; Reschlyd Schrag, 2001 ; Show, 1999 ; Tilly & Reschly, 1993 ; Woolery & Barley, 2003).

Early identification and intervention will prevent or ameliorate the effect of the impairment which has a high probability of manifesting itself as an educational problem in the child's later years. Early identification and intervention will substantially reduce children who might be eligible for special education to only 6% of the total number of children at risk of reading problems. It also improves the child's accuracy, fluency, word recognition skills and comprehension skills (Linder, 1983 ; Torgesen, 1996).

Early identification and intervention is not only beneficial to the child with learning disabilities and their families but also profitable to the society as a whole. Research has shown that these children become tax payers and not tax receivers. They also grow to become productive in the Society as the early years are important in laying a lifelong foundation (Guralnick, 1997; Learner, 2006).

Early identification and intervention reduce school failure greatly by accelerating cognitive and social development and reducing behavior problems resulting from the disability. 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 (Learner, 2006).

Children who are at risk of LD dramatically improve when early intervention and work with family are availed for example low birth weight infants gain good cognitive and behavior development when significant early intervention is given such as home visits, parent trainings, paediatric surveillance and community referral services. Research also shows that an ideal environment leads to the formation of many brain cell connections (nervous) if parents are not abusive, family is not disrupted and can provide the child's needs (Gophick et al, 1999; Keogh, 2001; US. Department of education, 2000b).

The influence of early environment on the brain development is long lasting. 30–40% of 300 individuals who have achieved a high level of financial success in USA had learning disabilities in school. A major business magazine: Fortune, enumerated many Chief Executive Officers (CEO's) of major corporations who had LD but received early intervention which resulted in good educational outcomes. Children with LD may be gifted and talented hence need for early intervention programmes. Early intervention of children with learning disabilities acts as a safety valve from the social stigma that disabled children get from others and the society as a whole. This social stigmatization lowers the child's self esteem and makes their self concept negative, thus making their future educational outcomes poor (Jones, 1986 Morris, 2002; Weinberg, 1978; West, 2000).

Early intervention will prevent or ameliorate the effect of the problems in the child's later academic years. The programme will also reduce the high drop-out rate of children from

school due to consistently poor performance and frustrations as a result of the learning impairments (Chadha, 2001; Linder, 1983).

2.8 Summary of the Literature Review

Learning disability is 'a hidden' form of disability in which the child's actual performance is not commensurate with their mental age and/or abilities. Though the child looks 'normal' their performance indicates that there is something wrong in their educational achievements. The cause of the disability is still not established. Studies indicate that this disability may occur during prenatal, peri-natal, and post-natal periods of the child's development.

During the prenatal stage, maternal diseases, diet, or other teratogens affect the child's neurological system. During delivery, prolonged labour, anoxia, or use of forceps can also interfere with the neurological system of the baby and thus causing learning difficulties in the later years. After birth, poor diet, childhood diseases and accidents or allergies can interfere with the basic neurological process system of the child making the child experience learning difficulties later in life.

According to studies reviewed, the condition occurs in almost all nations, language groups, races, or cultures. A high prevalence rate is noted in poverty stricken areas however, studies indicate that early identification and intervention in learning disabilities can lead to upto 70% recovery.

Early intervention will therefore help the child to succeed not only in academics but also in their career pursuit. This justifies the reason why a study like this is long overdue in Kenya. There are several methods of identifying and classifying children as Learning Disabled. For example, differential diagnosis, IQ and Achievement discrepancy test. Several intervention

programmes also exist for example Multi-sensory approach, IEP and effective teaching methods.

However, there are some factors that seem to hamper effective early identification and intervention of learning disabilities. Such as, teacher training status, teacher pupil ratio, policies and practices, Parent teachers relationships, language of instruction and methods of instructions.

The study therefore, endeavoured to establish the efforts of the public primary schools in Butere District in regards to early identification and intervention for children with LDs. In addition, the study considered the factors hindering such undertaking.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the research design, the study location, target population, population sampling and sampling procedures. The chapter also deals with research instruments, pilot study, data collection instruments and data analysis.

3.1 Research Design

The study employed an ex-post facto research design to analyze and understand relationships among the variables. In an ex-post facto design, the variables occur in a natural setting and the researcher attempts to determine the relationship and effects that occur between the variables (Kelinger, 1996; Orodho, 2005).

The ex-posto facto research also seeks relationship between any two or more variables. A value of zero (0) indicates the absence of any relationship between the variables whereas +1.0 denotes a perfect positive correlation. A negative (-ve) indicates a perfect negative correlation. If the relationship is somewhat, the coefficient will have a value between zero to +1 or zero to -1.

The descriptive survey was supposed to yield statistical information about aspects of early identification of learning Disabilities that are of interest to education policy makers (Borg and Gall, 1989). It aims at describing the nature of existing conditions and determining the relationship that exists between the independent and dependant variables (Borg& Gall, 1989; Orodho, 2005).

Therefore, the researcher studied teacher-pupil educational interaction in the natural learning environment without manipulating any variables and then gave a detailed record of events.

3.2.0 Variables

Variables are identities subjected to change or they can also be a condition or a factor that is capable of changing or being changed (Babbie, 1999, Maclave, 2000, Rosenberg, 1993; Stalt, 1998).

In any research done, it is important to identify the research variables. These include both independent and dependent variables. The variables of this study are discussed in the following sub sections;

3.2.1 Dependent Variables

Dependent variables are those that change as a result of changes in the independent variable (Bless, 1987). The dependent variable for this study was early identification of learning disabilities.

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: training in special needs Education; Teacher-pupil ratio and Teacher-parent interaction over the child's academic work.

These variables were measured as follows;

Training in special needs education – whether the teacher was trained in special Needs education or not and at what level of training had the teacher undergone in SNE; certificate, diploma or degree.

Teacher pupil ratio – The number of children a teacher handled per class; 1:10, 1:20, 1:30, 1:40, 1:50 and1:50 and above

Teacher-parent interaction –whether teachers and parents interacted over the pupil's academic work. Measured as never, rarely, sometimes, often and very often. Scored as Never – 1, Rarely – 2, Sometimes – 3, Often – 4 and Very often – 5.

3.3 Location of the Study

The study was done in Butere District. The district is found in Western Province. It is bordered by Mumias to the North, Kakamega to the South, Bungoma to the West and Siaya to the East. Administratively, the District is made up of two divisions, namely; Butere and Khwisero. This District lies along the Equator and experiences high temperatures with two rain seasons. The main economic activities are sugarcane farming and, to some extent, maize farming. The District is served by a railway line and road network. There is a high poverty index especially in Khwisero Division.

The study was conducted in Butere District because no similar study had been conducted in the area; the researcher worked in the district and had also come across statistics that indicated the existence of cases of children with learning disabilities. Hence the need to know the criteria used to identify the learning disabilities and selective factors influencing or hindering early identification of learning disabilities. The statistics are shown in the Table below.

Table 3.1: Number and Category of Children With Different Disabilities in Butere District

Type of Disability	Male	Female	Total
Hearing Impairment	1000	1110	2110
Learning Disabilities	814	448	1262
Mental Impairment	750	510	1260
Physical Impairment	700	420	1120
Visual impairment	510	340	850
Total	4184	2970	7154

Source; Butere District Education Office, Annual Statistics, 2008.

Table 3.1 above shows that hearing impairment and learning disabilities are the leading forms of impairments affecting standard three pupils of Butere District

3.4 Target Population

Butere district has 126 public primary schools and 10 private schools totaling to 136 primary schools. The study targeted standard three teachers and head teachers from the 126 public primary schools found in the district. 25 schools were selected from the four educational zones using stratified and systematic sampling methods. Head teachers and class three teachers from the sampled schools of the four zones formed the sample population. The zones included in the study are captured in the Table 3.2 below;

Table 3.2: Number of Public Primary Schools per Division and Zone

Division	Zone		Total
	West	East	
Butere	36	36	72
Khwisero	29	25	54
Total	**65**	**61**	**126**

Source: Butere District Education Office, Annual Statistics, 2008.

Table 3.2 above revealed that Butere District had two educational Divisions namely; Butere and Khiwisero. Butere had two educational zones (East and West) each with 36 schools totaling to 72. Khiwisero had two zones (East and West) with 25 and 29 schools respectively totaling to 54. In total, Butere district had 126 public primary schools.

3.5.0 Sampling Techniques and Sample Size

Sampling involves selecting a sub set (portion) of cases in order to draw conclusions about the entire set (population). A sample is a small part of the large population which represents the larger population. Any statements made about the sample should be true for the entire population. A good representative sample should constitute at least 20% of the entire population (Orodho, 2004 ; 2005).

3.5.1 Sampling Technique

The researcher used both stratified and systematic sampling methods. Stratified sampling included two divisions for study. These were Butere and Khwisero divisions. The two divisions were further divided into Butere and Khwisero west and east zones respectively. Twenty five (25) schools were selected from the four zones to form the study sample.

Using systematic sampling technique, the nth value was calculated by dividing the total number of schools in that zone by the sample size required. The nth value of five (5) was calculated. This meant that every fifth school on the zonal list of schools was selected to participate in the study.

3.5.2 Sample Size

The study sample consisted of 20% of the total number of public primary schools (126) in Butere district. This formed a sample size of 25 public primary schools. Thirty seven (37) Class three teachers and twenty five (25) head teachers from the twenty five sampled public primary schools formed the sample size as shown in Table 3.3 below

Table 3.3: Sample of Public Primary Schools in Butere District

Division	Zones	No. of schools	Sample	Total sample
Butere	West	36	07	14
	East	36	07	
Khwisero	West	29	06	11
	East	25	05	
Total		126	25	25

As shown above in Table 3.3 the selection of the public primary schools was done through stratified and systematic sampling. A total of 25 primary schools were therefore selected. Thirty seven (37) class three teachers and twenty five headteachers from the twenty five sampled schools were selected for the study.

3.6.0 Research Instruments

Research instruments are methods or tools used to gather information from respondents either directly or indirectly. This study involved the use of questionnaires and interview schedules aimed at gathering relevant data on early identification of learning disabilities.

3.6.1 Interview Schedule

A structured interview (asking each informant the exact same question) was conducted with the head teachers. This was aimed at crosschecking information given by the standard three teachers.

The interview Guide consisted of six parts. Part I contained the head teachers' demographic information; gender, highest professional qualifications, whether the teachers had been employed by PTA or TSC, Level of training in special needs education, number of children in their standard three (3) classes, number of children considered to be having learning disabilities and the subject in which the disability manifested itself (either in maths and or language).

Part II – IV used a 4 Likert Scale on the headteachers' perception of a child having a learning disabilities in maths, language and determining eligibility of a child's LD status. A score of 1 – Strongly Agree, 2 – Agree, 3 – Disagree and 4 – Strongly Disagree. A score of 2.5 and below showed that teachers agreed with the responses and a score of above 2.5 indicated disagreement with the responses.

Part V used a 5 Likert Scale on Teacher-parent interaction over the child's academic work. A score of 1 – Never, 2 – Rarely, 3 – Sometimes, 4 – often and 5 – Very often. A score 3 – implied neutral. A score above 3 indicated oftenly and below 3 rarely.

Part VI had a 6 Likert Scale on the teacher-pupil ratio in regular classes. A score 1-1:10, 2-1:20, 3-1:30, 4-1:40, 5-1:50 and 6-1:60. A core of 5 and below showed a normal ration whereas a score of 6 indicated high pupil-teacher ratio.

3.6.2 Questionnaire

In this study, a structured questionnaire (questions with a list of possible alternatives from which a respondent is required to select answers) was directly administered to standard three teachers and collected afterwards.

The questionnaire had six parts. Part I contained demographic information of the teacher including gender, Highest professional qualifications, whether the teachers had been employed by PTA or TSC, level of training in Special Needs Education, number of children in class, number of children considered to have learning disabilities and whether the disability manifested in language and or maths.

Part II contained Teachers' perception of a child with learning disabilities in maths. Part III contained Teachers' perception of child with learning disabilities in language. Part IV had Teachers' perception of determining eligibility of a child who has learning disabilities, Part V on Teacher-parent interaction over the child's academic work and Part VI on Teacher-pupil ratio.

A four Likert Scale was used for parts II, III and IV to measure Teachers perception of a child with Leaning Disabilities in Maths, Languages and Perception of determining eligibility of a child having learning disabilities. 1 – Strongly Agree, 2 – Agree, 3 – Disagree and 4 – Strongly Disagree.

These responses were awarded scores as follows, 1 – Strongly Agree, 2 – Agree, 3 – Disagree and 4 – Strongly Disagree. The instruments consisted of 10 responses. Any score of 2.5 and below signified teachers agreed with the responses on the instrument, whereas a score of 2.6 and above indicated that teachers disagreed with the responses on the instruments.

Part V had a 5 Likert Scale of 1 – Never, 2 – Rarely, 3 – Sometimes, 4 – Often and 5 – Very often. A score of 1 – 2 indicated that parents and teachers never interacted over the child's academic work. A score of 3 has neutral and a score of 4 and above showed that parents and teachers oftenly interacted over the child's academic work.

Part VI contained a 6 Likert scale on Teacher-pupil ratio in the regular public primary schools. 1:10 – 1, 1:20-2, 1:30-3, 1:40-4, 1:50-5 and 1:60-6. A score of 5 and below showed the pupil-teacher ratio was normal whereas a score of 6 indicated a high teacher-pupil ratio.

3.7.0 Pilot Study

Piloting was carried out in two public primary schools of the total population of the public primary schools outside the district of study. These schools had similar characteristics with those in the area of study.

This is because the members of these schools were likely to discuss the items in the questionnaire after the pilot and would have had an advantage if they were to participate during the actual research study.

The purpose of piloting was to discover areas of weakness in the instruments, check for clarity of the questions or items and also elicit comments from respondents that would assist in the improvement and modification of the instruments. Piloting also enabled the researcher

to detect any flaws in the administration of the research instruments. It was after piloting that reliability and validity of the instruments was established.

3.7.1 Validity

Content validity was used to test the validity of the instrument. Content validity refers to whether the instrument measures all concepts it was intended to measure or the degree to which concepts to be assessed are accurately measured (Coolican, 1996 ; Orodho, 2004). Content validity was catered for by constructing all the important items on the research instrument and ensuring that all objectives of the study were covered in the instrument.

3.7.2 Reliability

The internal consistency of the instruments was tested by the test – retest method. Reliability is a measure of the consistency by which an instrument provides similar results on different but comparable occasions or a measure of the degree to which an instrument gives similar results over a number of repeated trials (Coolican, 1996 ; Orodho, 2004).

The reliability of the research instrument was tested by administering the same instrument twice to the same group of subjects in a span of two weeks (14days) time lapse between the first and the second one.

The coefficient of stability was used to estimate the degree to which the same results are obtained on different but comparable occasions. The Cronbach's Coefficient Alpha (k-R20) was computed to determine the correlation of items contained in the instrument (Coolican, 1996). To ensure internal consistency in the tools, ambiguous questions were refined after the pilot studies. This data is presented in Table 3.4 below;

3.4: Reliability Test Results

Section	First Cronbach's Coefficient Alpha	Number of items	Second Cronbach's Alpha
Perception of LD in maths	.766	10	.768
Perception of LD in language	.656	10	.658
Methods of determining eligibility of LD	.687	10	.687
Teacher-pupil ratio	.735	06	.735
Teacher-parent interaction	.621	10	.622

Table 3.4 reveals that theAlpha Cronbach's Coefficient of scales were 62 –76% reliable. This means that the instrument had high consistency/correlation and hence reliable.

3.8 Data Collection Procedures.

The data was collected through questionnaires for standard three teachers and interview schedules for head teachers. In phase one, the researcher wrote letters of invitation to the class three teachers indicating the date, time and venue in their respective zones.

The venues were within walking distance. The researcher briefed the standard three teachers on the purpose of the visit and then personally administered the questionnaires. The questionnaires were collected as soon as they were filled. The personal administration of the questionnaires enabled the researcher achieve a hundred percent ratio return.

In the second phase, the head teachers of the sampled schools received letters of the intended visit to their schools by the researcher indicating the date and time. The researcher interviewed the head teachers as a follow up to the information given by the standard three teachers. This took a duration of one month; a week for class three teachers and three weeks for head teachers. Two head teachers were interviewed daily in the morning and afternoons.

3.9 Logical and Ethical Considerations

The researcher was issued a letter by the Graduate School of Kenyatta University to the Ministry of Education to obtain research permit and permission from the Ministry of Education and other relevant authorities before embarking on data collection. Respondents were not supposed to write their names for the sake of confidentiality.

3.10 Data Analysis

Both qualitative and quantitative methods were used to analyze the data. Data was prepared for analysis using Statistical Package for Social Sciences. Descriptive statistics calculated include: Frequencies, means, percentages, standard deviations, modes and median. Inferential statistics calculated were: Pearson Product Moment Correlation and Chi-Square. Pearson product moment correlation was used to test hypotheses H_1O and H_3O. Null hypothesis H_2O was tested using Chi-Squire. The hypotheses of the study were tested at 0.05 level of significance using the statistical tools (tests).

The Null hypotheses were:

H_1O - There is no significant relationship between early identification of learning disabilities and the teachers' level of training in the special needs education.

H_2O - There is no significant relationship between early identification of learning disabilities and teacher- pupil ratio.

H_3O - There is no significant relationship between early identification of learning disabilities and teacher- parent interaction over children's progress at school.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.0 Introduction

This chapter presents data analyses, and discussions of the research findings.

4.1 Data Analysis

Both qualitative and quantitative methods were used to analyze the data. Data was prepared for analysis using the Statistical Package for Social Sciences. Descriptive statistics calculated include: Frequencies, means, percentages, standard deviations, modes and median. Inferential statistics calculated were: Pearson Product Moment Correlation and Chi-Square.

Pearson product moment correlation was used to test hypotheses H_1O and H_3O. Null hypothesis H_2O was tested using Chi-Squire. The hypotheses of the study were tested at 0.05 level of significance using the statistical tools (tests).

4.2 Demographic Information

The descriptive and inferential results are presented in the following subsections:

Table 4.1: Distribution of Teachers by Role and Gender

Position	Gender	Frequency	Percent
Teacher	Male	10	27.03
	Female	27	72.97
	Total	37	100.0
Head Teacher	Male	20	80.0
	Female	5	20.0
	Total	25	100.0

Table 4.1 shows that there were more female class three teachers 73% (27) than males 27% (10). However, there were more male head teachers 80% (20) compared to females 20% (05). Therefore, there were more male teachers than females; especially in the area of leadership.

This may be as a result of cultural biases that promoted boy–child education as compared to the girl-child education and gender stereotypes that make women shy away from position of leadership or cultural beliefs and practices of where women are supposed to be subordinates to men.

Although the Government has put in place policies to address these gender disparities in the appointment of headteachers, deputy headteachers, seniors and heads of departments, this still shows a trend of male dominance in schools management. Women are grossly under-represented in governance of public affairs in Kenya. For example in 2006, there were only two women cabinet ministers and five assistant ministers out of two hundred and ten elected members of parliament constituting only four percent of the total representation. Governance and management of education is equally male dominated.

There is also need to revise teaching materials that often display strong models for the boy-child only. Boys tend to lead groups and are given more opportunities to ask questions than girls. Increasing the proportion of female heads will increase recruitment of female teachers and eventually boost the girl-child education (Banerjee, 2002 ; Hertz, 2003 ; MOE, 2007 ; Saitoti, 2005).

Table 4.2: Teachers Highest Professional Qualifications

Position	Highest Qualification	Frequency	Percent
Teacher	P 1	30	81.08
	S 1	1	2.70
	B. Ed.	1	2.70
	Others(ATS1V-1)	5	13.52
	Total	37	100.0
Head Teachers	P 1	5	20.0
	S 1	3	12.0
	Diploma	2	8.0
	B. Ed.	2	8.0
	Others(ATS1V-I)	13	52.0
	Total	25	100.0

Table 4.2 shows that most class three teachers were of primary one (P1) grade 81% (30) compared to the head teachers who were in the category of others (ATS IV-1). This meant that teachers' highest professional qualifications were P1 though some had been promoted to grades (ATSIV-1). This could be attributed to the fact that the TSC had denied primary teachers paid leave for undergraduate studies. Secondly, most teachers were not having academic qualifications that could allow them pursue higher studies. The minimum entry requirement for P1 had been D+ (plus) till recently when it was upgraded to C which still does not guarantee one a direct entry to a degree course.

Research studies by UNESCO reveal that large proportions of primary school teachers lack adequate academic qualifications to pursue high levels of professional training (UNESCO, 2005).

4.3 Early Identification of Children with Learning Disabilities

To achieve the universal Education for All in line with EFA goals and Millennium Development Goals by (2015), education of children with special needs like those with learning disabilities must be guaranteed. To fulfill this, early identification leading to intervention of children with learning disabilities has to be done below nine (9) years to ameliorate its devastating effects on the child's future academic achievements. This study investigated children with learning disabilities enrolled in public primary schools.

The subjects in which the children were affected by learning disabilities and teachers used to identify children having learning disabilities were either language or mathematics as discussed below

Table 4.3: Number of Children considered by teacher as having Learning Disabilities

	Number of children per class	Number of children considered as being learning disabled
Mean	73.58	19.04
Median	62.00	13.50
Mode	63	12
Minimum	29	1
Maximum	200	85
Sum	4341	1028

Table 4.3 shows that 1,028 children out of 4,341 children in the public primary schools had learning disabilities. The number of learning disabilities increased with the number of children a teacher handled. This meant that 24% of the children enrolled in the selected public primary schools had learning disabilities. Research studies in the US estimate that between 1–30% of the total school population in the U.S have learning disabilities. 15 – 20% of these children are in standard one. Further studies estimates that 10-15% of children

receiving elementary (primary) education in India had learning disabilities (Gearheart, 1985 ; Learner,1995 ; Lyon, 2001 ; Mercer, 1991).

The high proportion of children considered to be having learning disabilities may be due to lack of teacher–training in special needs education and high teacher-pupil ratio resulting from free primary education making teachers label every child showing any difficulties in maths or language as having learning disabilities.

Table 4.4: Subjects in which Children Displayed Learning Disabilities

Area of disability	Frequency	Percent
Language	30	48.4
Mathematics	32	51.6
Total	62	100.0

Table 4.4 shows that 52% (32) of the children enrolled in the sampled public primary schools had learning disabilities in maths and 48% (30) in language. This meant that children having learning disabilities in maths were more than those having learning disabilities in languages. However, research studies in the US indicate that 70–74% of children having learning disabilities have difficulties in language, whereas 26% had learning disabilities in maths (Cass, 2003 & Lyon, 2001).

The big discrepancy with the study findings in Kenya could be attributed to the fact that most teachers in Kenya were not trained in handling children with special needs and lacked personal contact with children because they handled many on average (63) children per class. The teacher-pupil ratio was also way above the Government policy requirement of 1:40 for the regular classes.

Table 4.5: Teachers Perception of a Child having Learning Disabilities in Maths

	N	Mean	Std. Dev
Seems bright and capable of good performance as peers of same age/ability but always fails in maths (reasoning or calculation) even when taught with others	62	1.56	.617
Unable to perform maths operations (+, -, /,)	61	1.80	.654
Has problems differentiating numbers (6, 9 ,2, 5)	61	1.85	.703
Always disinterested in maths and easily gives up	62	1.84	.814
Has many calculation mistakes and is very untidy	61	1.77	.783
Is very poor in abstract thinking	62	1.60	.586
Cannot perform well in sums with multiple digits	61	1.75	.789
Slow but still inaccurate and with many mistakes	62	1.44	.562
Unable to tell the relationship between objects (big/small, long/short)	62	2.02	.820
Unable to sequence objects well	61	1.89	.839
Overall Mean:	62	1.75	.40

Table 4.5 shows that the overall mean score for teachers' in perception of a child having learning disabilities in maths had a mean score of 1.75. A score below 2.5 indicated agreement with signs given in the instrument. Moreover, most teachers perceived a child as having learning disabilities in maths if the child was too slow in doing maths, had many mistakes and was inaccurate.

The child performance had a big discrepancy with achievement in reasoning or calculation and was very poor in abstract thinking. This means that any child who exhibited the signs indicated above was automatically considered having learning disabilities, hence the big percentage of children with learning disabilities in maths as shown in Table 4.6. Lack of training by teachers in special needs education also contributed to the same as contrasted with studies by Cass (2003).

Table 4.6: Teachers Perception of a Child having Learning Disabilities in Language

	N	Mean	Std. Dev
Seems bright and capable of good performance as peers of same age/ability but always fails in language (oral, listening, basic reading and writing skills)	62	1.39	.583
Cannot express themselves well	62	1.56	.617
They are slow to respond to verbal instructions	61	1.64	.633
Always disinterested in reading	60	1.40	.558
Has many spelling mistakes	62	1.48	.671
Is very untidy in their written work	61	1.77	.739
Parrots words without understanding the meaning	62	1.71	.755
The child reverses letters for example "b" and "d"	62	1.63	.633
The child has incorrect word order (poor sentence structure)	61	1.56	.620
Unable to copy words from the chalkboard well	62	1.47	.593
Overall Mean:	62	1.56	.40

Table 4.6 shows that the overall mean score for the teachers' in perception of a child having learning disabilities in language was 1.56. A score below 2.5 indicated an agreement with the options given on the instruments. Teachers still perceived a child having learning disabilities in language as one who; is always disinterested in reading, has an ability–achievement discrepancy in language, cannot copy words from chalkboard not as a result of visual impairment and is very slow in responding to verbal instructions.

This meant that any child who displayed any of the above signs was considered as having learning disabilities in language. However, the proportion may have been lower in this study than U.S due to lack of teacher training in special needs education and high teacher-pupil ratio that limited quality interaction between teachers and pupils. Close interaction could easily facilitate early identification of learning disabilities through observation.

4.4 Methods of Identifying Children with Learning Disabilities

Even though early identification of learning disabilities depends on a number of factors like teacher training in special needs education and teacher-pupil ratio, there are a number of methods of identifying children having learning disabilities. The method used to determine eligibility was therefore, a very important issue of investigation in the study

Table 4.7: Criteria used by teachers to determine eligibility of children with Learning Disabilities

	N	Mean	Std. Dev
Perform well in all subjects but has an unexplained failure in maths/language not attributed to mental, hearing or visual impairments (differential diagnosis)	62	1.68	.742
Under achieves in maths/language skills consummate with their age/ability even after being taught unlike the peers (criterion test)	62	1.55	.592
Has good performance (strengths) in all subjects except in maths/language where the child under achieves (weakness)	62	2.06	.921
Whose parents have shown concern about the child's unexplained failure in maths/language (parents' concern)	62	2.06	.807
Has shown constant failure in specific areas of maths/language and strengths as indicated by checklist	60	1.70	.671
From close observation the child seems to experience difficulties in maths/language takes long to complete assignments and easily loses interest (observation)	61	1.52	.595
Has been assessed and cleared of any mental, visual and hearing impairments	61	2.30	.919
The child's performance does not seem to be equivalent to the child's ability/age (discrepancy)	61	1.56	.620
The child's family history shows that at least one member had learning difficulties in maths/language (case history)	61	1.97	.816
The child fails regularly in specific aspects of maths/language even after being taught and retested severally	62	1.60	.586
Overall Mean:	62	1.80	.39

Table 4.7 shows that the overall mean score for the teachers' in methods used to identify children with learning disabilities was 1.80. A score below 2.5 implied that teachers used the methods given on the research instrument. Most teachers used observation criterion test, ability–achievement discrepancy method and teacher-test-retest methods.

This means that if a child was seen struggling to do maths or language activities and failed skills in which peers did or failed what had been taught and revised, could easily be labeled as having learning disabilities. This may account for the high percentage of children considered having learning disabilities in Kenya 24% compared to U.S and India which had 30% and 20% respectively.

Studies indicate that training is an important component in enabling a teacher offer early identification and intervention (Lyon, 2001 ; Omurwa, 2007). Moreover, a small class is easy to manage and still maintain close contact which is vital in early identification of learning disabilities (Ndani, 1994).

4.5.0 Factors that Influence Early Identification of Learning Disabilities

Early identification leading to intervention of children with learning disabilities enables the children to maximize their potentials in life just like 'normal children' (Lerner, 2006).

The objective was to investigate selective factors that influence or hinder early identification of children with learning disabilities. The factors investigated in this study were; Teacher training in special needs education, teacher-pupil ratio and teacher-parent interaction. To address the issues, three hypotheses were formulated and tested whose descriptive and inferential results are discussed below;

4.5.1 Teacher Training in Special Needs Education

In this section, the researcher wanted to investigate if teachers' training in Special Needs Education was significant in Early Identification of Children with Learning Disabilities. Table 4.8 below presents the results;

Table 4.8: Teacher Training in Special Needs

Position	Level of training in special needs	Frequency	Percent
Teacher	Not trained	26	92.9
	Diploma	1	3.6
	Degree	1	3.6
	Total	28	100.0
Head Teacher	Not trained	21	84.0
	Certificate	2	8.0
	Diploma	1	4.0
	Degree	1	4.0
	Total	25	100.0

Table 4.8 shows that Ninety three percent 93% (26) of class three teachers had not been trained in Special Needs Education. A further Eighty four percent 84% (21) of head teachers had also not been trained in special needs education. This meant that most of the teachers lacked the necessary knowledge, skills and attitudes to help them identify Children with Learning Disabilities.

Further statistical analysis was done to find out the relationship between Teacher Training in Special Needs Education and Early Identification of Learning Disabilities. Hence the following hypothesis was formulated and tested;

H_1O: ***There is no significant relationship between Early Identification of Learning Disabilities and Training in Special Needs Education.***

The researcher used Pearson Product Moment Correlation to determine whether there was a statistically significant relationship between Teacher Training in Special Needs Education and Early Identification of Learning Disabilities.

The question to be answered was: Is Training in Special Needs Education Significant in Identification of Children with Learning Disabilities?

Table 4.9 below presents correlation results;

Table 4.9: Correlations between level of training and early identification of learning disabilities

		Percentage of Identified cases of disabilities
Level of Training in special needs education	Pearson Correlation	-.034
	Sig. (2-tailed)	.817

Table 4.9 shows that the correlation coefficient was -0.034. The level of significance was 0.0817. The results implied that the relationship between Teacher Training in Special Needs Education and early identification of learning disabilities was negative, weak and the null hypothesis was accepted.

The findings of this study seemed to contradict the study on the importance of training in special needs education in early identification of learning disabilities. Other studies on the factors that influence integration of learners with special needs into regular primary and secondary schools revealed that trained teachers enhanced integration of learners with special needs into regular schools than the untrained teachers (Lyon, 2001 ; Omurwa, 2007). In addition, studies investigating the relationship between knowledge on nutrition and nutrition practices, found out that teachers who had undergone training in nutrition practiced nutrition activities more than teachers who had not received any training (Muting'au, 2006). This meant that training is important in enhancing early identification of learning disabilities.

4.5.2 Teacher-pupil Ratio

The researcher was interested in finding out if there was any significant relationship between teacher- pupil ratio and early identification of learning disabilities. Table 4.10 below presents the results.

Table 4.10: Teacher-pupil Ratio

Teacher-Pupil Ratio	Frequency	Percent
1:50	24	38.7
Over 1:50	38	61.3
Total	62	100.0

Table 4.10 shows that the majority of the respondents 62% (38) were handling over 50 children per class. This meant that teacher–pupil ratio was way above the stipulated government required ratio of 1:40.

Further statistical analysis was done to find out whether there was any significant relationship between the number of children a teacher handles per class and early identification of learning disabilities. Hence the following hypothesis was formulated and tested:

H_2O: There is no significant relationship between early identification of learning disabilities and teacher–pupil ratio.

The researcher used Chi-square to find out whether there was a significant relationship between early identification of learning disabilities and teacher-pupil ratio.

The Chi-square results of this hypothesis (H_2O) are in Table 4.11 below.

Table 4.11: Relationship between pupil-teacher ratio and Early Identification of Children with Learning Disabilities

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	36.336(a)	20	.014

Table 4.11 shows that the Pearson Chi Square correlation coefficient was 0.14. The results implies that the null hypothesis which states that there is no significant relationship between early identification of learning disabilities and teacher–pupil ratio was rejected. This means that the more children a teacher handled per class the fewer the chances of identifying children with learning disabilities.

The findings of this study are supported by other research studies which revealed that the fewer the number of children a teacher handled the closer the interaction and hence the easier the task of identifying children with learning disabilities. This is supported by other studies which established that teachers who handled fewer children in class succeeded most in integration than those teachers who handled more children per class. The Ministry of Education requires teachers to handle fewer children at the ratio (1-30) per class for disabilities like learning disabilities and even lower for disabilities like mental handicaps (Lyon, 1996, 2001 ; MOE, 2006 ; Omurwa, 2007).

However, as shown in Table 4.3, this study revealed that most teachers handled as many as 60 children per class. This meant that the quality of education being offered was wanting because teacher-pupil ratio is an important determinant of quality of education. It has been suggested that the high teacher-pupil ratio is as a result of HIV/AIDS pandemic (Desai, 2005; UNESCO, 2005). A new study in Kenya has revealed that HIV/AIDS has considerably

exacerbarated teacher turn over rates and placed a significant strain not only on Ministry of Education but also on human resource requirements by doubling the mortality rates.

Therefore, because teachers are prime movers in the achievement of EFA Goals and MDGs, there is need to hire more teachers to lower the already high teacher-pupil ratio. This will bolster a closer teacher-pupil interaction in learning and thereby enhance not only early identification but also early intervention of learning disabilities (Boler, 2003).

A small class is easy to manage besides having a close contact with the learners which is an essential ingredient in early identification of learning disabilities. The learning disabilities identified may have been as a result of the assumption that any child showing any difficulty in maths or languages had learning disabilities (Ndani, 1994).

4.5.3 Teacher-Parent Interaction over the Child's Work

The researcher was interested to establish if there was any significant relationship between early identification of learning disabilities and teacher-parent interaction over the child's work. The researcher tested this relationship using means and standard deviations as stated below in Table 4.12;

Table 4.12: Rate of teacher–parent interaction over the child's work

Position		Mean	Std. Dev
Teacher	I inform parents about their children's strength and weakness	3.000	.866
	I discuss with parents how to support their children's education	3.182	1.044
	I give children homework and expect parents to assist children and sign the children's books	2.812	1.330
	I use newsletter or notes to communicate with parents over their children's academic work	2.030	.918
	I discuss the children's report card with the parents	2.970	1.015
	I raise my concerns with the parent over the children's areas of learning difficulties	3.121	1.083
	I educate parents on how children grow to enable them note any deviation	2.813	.998
	I discuss with parents on how to help children in reading, writing and doing maths	2.710	1.131
	I advice parents to take a child for assessment if there is consistent failure in maths or language only to assess learning disabilities	2.273	1.126
	I listen to parents concerns about their children's learning needs	3.667	.736
	Overall Mean for Teacher Parent Interaction	2.864	.652
Head Teacher	I inform parents about their children's strength and weakness	3.385	.752
	I discuss with parents how to support their children's education	3.667	.832
	I give children homework and expect parents to assist children and sign the children's books	2.680	.988
	I use newsletter or notes to communicate with parents over their children's academic work	2.192	1.201
	I discuss the children's report card with the parents	2.800	.957
	I raise my concerns with the parent over the children's areas of learning difficulties	3.577	.703
	I educate parents on how children grow to enable them note any deviation	3.750	.676
	I discuss with parents on how to help children in reading, writing and doing maths	3.154	1.255
	I advice parents to take a child for assessment if there is consistent failure in maths or language only to assess learning disabilities	2.731	1.373
	I listen to parents concerns about their children's learning needs	4.038	.871
	Overall Mean	3.168	.605

Table 4.12 shows that the overall mean for the teachers' parent interaction was 2.8 while that of head teachers was 3.2. The results imply that the teacher –parent interaction over the child's academic work was low or less.

Further statistical analysis was done to find out the relationship between teacher–parent interaction and early identification of learning disabilities. Hence the following hypothesis was formulated and tested.

H_3O: There is no significant relationship between early identification of learning disabilities and teacher–parent relationship.

The researcher used Pearson Product Moment Correlation to determine if there was any significant relationship between teacher-parent relationship and early identification of learning disabilities and results are presented in Table 4.13 below.

Table 4.13: Relationship between teacher-parent interaction and early identification of children with learning disabilities

		Parent - Teacher Relationship
Percentage of Identified cases of disabilities	Pearson Correlation	-.229
	Sig. (2-tailed)	.114

Table 4.13 shows that the correlation coefficient was -.229. The level of significance was .114. Insignificant negative correlation (r = - 0.229) and (p = 0.114). The results show that the relationship between early identification of learning disabilities and teacher-parent relation was not significant. The null hypothesis was therefore accepted.

The findings of this study did not agree with other studies which sought to investigate if teacher-parent relationship had any importance on children's academic work. The study revealed that teacher-parent relationships were important in improving the child's academic

work. Other studies revealed that teacher-parent relationships bridged home-school gap and in turn improved the child's academic scores and how teacher-parent relationship influenced teacher-child interaction, established that children whose parents had good relationship with the teachers, were treated well and performed better in their academic work too (Cowan, 2005, Gakii, 2003, Learner, 2006 ; Mcwayne, 2004).

Therefore, there is need to formulate policies that will promote more quality interactions between parents and teachers over their children's education in order to enhance/facilitate early identification of learning disabilities and also to realize the EFA Goals and MDGs.

In conclusion, it was established that a large number of children in the earlier grades experience learning difficulties. However, early identification leading to early intervention causes significant recovery socially, educationally and economically both to the child and society.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents a summary of the study findings. The implications arising from the findings and the conclusions derived from the results of the study are also discussed. This chapter concludes by presenting the recommendations of the study and suggestions for further research.

5.1 Summary of Findings

The main findings of the study are as follows;

- There were more male head teachers (80%) than female head teachers (20%).
- There were more female class three teachers (73%) than male than male class three teachers (27%).
- Gender disparities still existed in the management of public schools in Butere District contrary to the gender policy of 2007.
- Most class three teachers (80%) and head teachers were P1 though most head teachers had been promoted to ATS 1V-1. That means that most public primary schools were taught by teachers whose professional qualifications were below diploma level.
- Most respondents (94%) were employed by the Ministry of Education and were therefore in better terms and conditions of service.
- Most class three teachers (80%) and head teachers (84%) were not trained in the area of Special Needs Education. Which means that they lacked the necessary skills and knowledge to identify children with learning disabilities.

- There was early identification of children with learning disabilities. From the 4,341 children enrolled in standard three classes of the sampled schools, 1,028 children had learning disabilities. This means that about 24% of the total children enrolled in the sampled schools had learning disabilities.
- Most children from the sampled schools exhibited learning disabilities in maths (52%) and (48%) in language.
- Most teachers used direct observation, criterion tests and ability-achievement discrepancy methods to identify children with learning disabilities.
- Most class threes in the sampled public schools was over-crowded; one teacher handled as many as sixty (60) children. Thus the teacher-pupil ratio was too high to allow quality learning and eventually early identification of learning disabilities.
- The relationship between the levels of teacher's training in special needs education and early identification was insignificant.
- The relationship between teacher-parent interaction over the child's academic work and early identification of learning disabilities was insignificant. This is because of low teacher- parent interaction over the child's academic work.
- The relationship between teacher-pupil ratio and early identification of learning disabilities was significant. Meaning that teachers who handled classes with fewer children identified children with learning disabilities better than those who handled large classes.

5.2 Implications of the Findings

- Lack of training in special needs education hinder early identification of learning disabilities. This is because untrained teachers lacked necessary knowledge, skills and attitudes to offer early identification of learning disabilities.

- Teacher training in special needs education encourage early identification of learning disabilities. Most class three teachers and head teachers lacked training in special needs education, thus there is need to train teachers in specific areas of special needs education to enhance early identification of learning disabilities.
- High pupil-teacher ratio hinders early identification of learning disabilities. This is because a teacher handling many children lacked personal contact with each pupil not only to identify learning disabilities but also scaffold them to learn normally like their peers.
- Strong teacher-parent interactions or partnerships over the child's academic work enhance early identification of learning disabilities. The means that there was need for schools to promote teacher-parent interactions over academic work.
- General teacher training does not enhance early identification of learning disabilities. Teachers offered general training in special needs education did not identify learning disabilities just like the untrained teachers.

5.3 Conclusions

The findings of this study reveal that about 24% of standard three pupils from the sampled schools have learning disabilities. However, most teachers lacked training in special needs education. Moreover, the classes were crowded and high teacher-pupil ratio. This makes successful early identification and intervention of learning disabilities a far dream. Therefore, to achieve the MDGs and EFA Goals, there is need for the Ministry of Education to train more teachers on specific skills of special needs education and employ more teachers so as to lower the high teacher-pupil ratio.

5.4 Recommendations

To realize the Universal Education for All (EFA) and the Millennium Development Goals (MDGs) by 2015, the Ministry of Education should do the following;

5.4.1 Ministry Of Education-Enhance gender parity in the management of educational .institutions.

- Train more teachers in specific content areas of Special Needs Education to enhance early identification and intervention of learning disabilities.
- Employ more teachers to lower the high teacher-pupil ratio impeding close teacher – pupil interaction that promotes early identification of learning disabilities.
- Encourage more teachers to pursue further studies by reversing unpaid leave policy for primary teachers intending to study in Special Needs Education. This will equip teachers with essential skills, knowledge and attitude for effective early identification of learning disabilities.

5.4.2 Parents

- Monitor their children's growth and learning to identify any learning disabilities, and thereafter offer early intervention.
- Scaffold and support children whose performance either in maths or language seems to differ from their expected potential to enable them excel in their academics like their peers.
- Establish parents' information centers and support programmes to empower parents in supporting the education of their children with learning disabilities so as to cope with the stigma of having a child in need of Special Needs Education.

5.4.3 Universities

- ❖ Conduct further research on children with learning disabilities. To enhance early identification and intervention of learning disabilities.
- ❖ Develop ideal assessment tools to offer early identification and interventions to children with learning disabilities to enable them succeed in their education and future life like their peers.

5.4.4 Curriculum Developers (KIE)

- ❖ Develop ideal assessment tools to offer efficient early identification of learning disabilities,
- ❖ Develop teaching programmes and teaching/learning materials to enable teachers scaffold children with learning disabilities and make them excel in their academics like their peers.

5.4.5 Teacher Training Colleges

- ❖ To equip teacher trainees with ideal skills and knowledge to offer early identification of children with learning disabilities.
- ❖ Train teachers to offer effective early intervention of learning disabilities to enable these students succeed in their academics like their peers.

5.5 Suggested areas for Further Studies;-

Replicate this study in other districts and compare the findings. Investigate the influence of teachers' experience on early identification of learning disabilities. Find out the methods being used by teachers to help children with learning disabilities learn normally like their peers, establish other factors that influence early identification of learning disabilities and ascertain the effectiveness of the methods used by teachers to identify learning disabilities.

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APPENDIX I

Questionnaire for teachers

The purpose of this study is to find out if there is early identification of children with learning disabilities in Butere District. A child having learning disabilities is a child who seems bright, enthusiastic and capable of performing well like peers, performs well in all other subjects like the peers but experiences an unexplained failure in the areas of maths; reasoning or calculations and language in the areas of; oral, listening comprehension, reading comprehension, basic reading skills or written skills. Despite the child appearing normal and capable of performing well, there is a severe discrepancy between their achievement and their actual potential especially in maths and language .The information you give will exclusively be confidential and thus for this study only.

SECTION a: Background Information

1) Tick the appropriate responses to state your background/ demographic information

Gender: Male [ ] Female [ ]

2) Your highest professional qualifications?

- P3 [ ] B.ED [ ]
- P 2 [ ] MED [ ]
- P 1 [ ] Any other specify [ ]
- S 1 [ ]
- Diploma [ ]

3) Your level of training in special needs education?

Not trained [ ]
Certificate [ ]
Diploma [ ]
Degree

4) How many children do you have in your class?_____

5) Of these, how many do you consider as being learning disabled?_____

6) In which subject, do most of them display learning difficulties?

Language [ ] Mathematics [ ]

SECTION B

Teachers' Perception of a Child with Learning Disabilities in Maths

Please tick the column that best suits your views in the following statements.
I consider a child who is learning disabled as one who;

Responses	**Strongly agree**	**Agree**	**Disagree**	**Strongly Disagree**
1) Seems bright and capable of good performance as peers of same age/ability but always fails in maths (reasoning or calculation) even when taught with others.				
2) Unable to perform maths operations (+, - ÷, ×).				
3) Has problems differentiating numbers (6,9,2,5).				
4) Always disinterested in maths and easily gives up.				
5) Has many calculation mistakes and is very untidy.				
6) Is very poor in abstract thinking.				
7) Cannot perform well in sums with multiple digits.				
8) Slow but still inaccurate and with many mistakes.				
9) Unable to tell the relationship between objects(big/small, long/short).				
10) Unable to sequence objects well.				

SECTION C

Teachers' Perception of a Child with Learning Disabilities in Language

Please tick the column that best suits your views in the following statements.
I consider a child who is learning disabled as one who;

Responses	**Strongly agree**	**Agree**	**Disagree**	**Strongly Disagree**
1) Seems bright and capable of good performance as peers of same age/ability but always fails in language (oral, listening, basic reading and writing skills.				
2) Cannot express themselves well.				
3) They are slow to respond to verbal instructions.				
4) Always disinterested in reading.				
5) Has many spelling mistakes.				
6) Is very untidy in his/her written work.				
7) Parrots words without understanding the meaning.				
8) The child reverses letters for example 'b' and 'd.'				
9) The child has incorrect word order (poor sentence structure).				
10) Unable to copy words from the chalkboard well.				

SECTION D: Teachers perception of determining eligibility of a child as being learning disabled

A child who is learning disabled ;

Responses	**Strongly Agree**	**Agree**	**Disagree**	**Strongly Disagree**
1) Performs well in all subjects but has an unexplained failure in maths/language not attributed to mental, hearing or visual impairments (differential diagnosis).				
2) Under achieves in maths/language skills consumerate with their age/ability even after being taught unlike the peers (criterion test).				
3) Has good performance (strengths) in all subjects except in maths/language where the child under achieves (weakness).				
4) Whose parents have shown concern about the child's unexplained failure in maths/language (parents' concern).				
5) Has shown constant failure in specific areas of maths/language and strengths as indicated by a checklist.				
6) From close observation the child seems to experience difficulties in maths/language takes long to complete assignments and easily loses interest (observation).				
7) Has been assessed and cleared of any mental, visual and hearing impairments.				
8) The child's performance does not seem to be equivalent to the child's ability/age (discrepancy)				
9) The child's family history shows that at least one member of that family had learning difficulties in maths/language (case history).				
10) The child fails regularly in specific aspects of maths/language even after being taught and re tested severally				

Section E: Teacher-parent interaction over the child's academic work

How often do you interact with parents over the children's academic work?

Responses	**Never**	**Rarely**	**Sometimes**	**Often**	**very Often**
1) I inform parents about their children's strengths and weaknesses.					
2) I discuss with parents how to support their children's education.					
3) I give children homework and expect parents to assist children and sign the children's books.					
4) I use newsletters or notes to communicate with parents over their children's academic work					
5) I discuss children's report card with the parent.					
6) I raise my concerns with parents over children's areas of learning difficulties.					
7) I educate parents on how children grow to enable them note any deviation.					
8) I discuss with parents on how to help children in reading, writing and doing maths.					
9) I advice parents to take a child for assessment if there is consistent failure in maths or language only to assess learning disabilities.					
10) I listen to parents concerns about their children's learning needs.					

Section F: Teacher-pupil ratio

How will you rate the ratio of the number of children you are handling per class? (Tick one)

1)1:10.	
2)1:20.	
3)1:30.	
4)1:40.	
5)1:50.	
6)1:50 and above.	

APPENDIX II

Interview schedule for the Primary Schools Headteachers

The purpose of this study is to find out if there is early identification of learning disabilities children in Butere District. A child with learning disabilities is a child who seems bright, enthusiastic and capable of performing well like peers, performs well in all other subjects like the peers but experiences an unexplained failure in the areas of maths; reasoning or calculations and language in the areas of; oral, listening comprehension, reading comprehension, basic reading skills or written skills. Despite the child appearing normal and capable of performing well, there is a severe discrepancy between their achievement and their actual potential especially in maths and language .The information you give will exclusively be confidential and thus for this study only.

SECTION A: Background Information

1) Tick the appropriate responses to state your background/ demographic information

   Gender: Male [ ] Female [ ]

2) Highest professional qualifications?

   - P3 [ ] B.ED [ ]
   - P 2 [ ] M.ED [ ]
   - P 1 [ ] Any other specify [ ]
   - S 1 [ ]
   - Diploma [ ]

3) Your level of training in special needs education?

   Not trained [ ]
   Certificate [ ]
   Diploma [ ]
   Degree

4) How many class three children do you have in your school?_____

5) Of these, how many do you consider as being learning disabled?_____

6) In which subject, do most of them display learning difficulties?

   Language [ ] Mathematics [ ]

SECTION B

Teachers' Perception of a Child with Learning Disabilities in Maths

Please tick the column that best suits your views in the following statements.
I consider a child who is learning disabled as one who;

Responses	**Strongly agree**	**Agree**	**Disagree**	**Strongly Disagree**
1) Seems bright and capable of good performance as peers of same age/ability but always fails in maths (reasoning or calculation) even when taught with others.				
2) Unable to perform maths operations (+, - ÷, ×)				
3) Has problems differentiating numbers (6,9, 2,5).				
4) Always disinterested in maths and easily gives up.				
5) Has many calculation mistakes and is very untidy.				
6) Is very poor in abstract thinking.				
7) Cannot perform well in sums with multiple digits.				
8) Slow but still inaccurate and with many mistakes.				
9) Unable to tell the relationship between objects(big/small, long/short).				
10) Unable to sequence objects well.				

SECTION C

Teachers' Perception of a Child with Learning Disabilities in Language

Please tick the column that best suits your views in the following statements.
I consider a child who is learning disabled as one who;

Responses	**Strongly agree**	**Agree**	**Disagree**	**Strongly Disagree**
1) Seems bright and capable of good performance as peers of same age/ability but always fails in language (oral, listening, basic reading and writing skills.				
2) Cannot express themselves well.				
3) They are slow to respond to verbal instructions.				
4) Always disinterested in reading.				
5) Has many spelling mistakes.				
6) Is very untidy in his/her written work.				
7) Parrots words without understanding the meaning.				
8) The child reverses letters for example 'b' and 'd.'				
9) The child has incorrect word order (poor sentence structure).				
10) Unable to copy words from the chalkboard well.				

SECTION D: Teachers perception of determining eligibility of a child as being learning disabled

A child who is learning disabled;

Responses	**Strongly Agree**	**Agree**	**Disagree**	**Strongly Disagree**
1) Performs well in all subjects but has an unexplained failure in maths/language not attributed to mental, hearing or visual impairments (differential diagnosis).				
2) Under achieves in maths/language skills consumerate with their age/ability even after being taught unlike the peers (criterion test).				
3) Has good performance (strengths) in all subjects except in maths/language where the child under achieves (weakness).				
4) Whose parents have shown concern about the child's unexplained failure in maths/language (parents' concern).				
5) Has shown constant failure in specific areas of maths/language and strengths as indicated by a checklist.				
6) From close observation the child seems to experience difficulties in maths/language takes long to complete assignments and easily loses interest (observation).				
7) Has been assessed and cleared of any mental, visual and hearing impairments.				
8) The child's performance does not seem to be equivalent to the child's ability/age (discrepancy).				
9) The child's family history shows that at least one member of that family had learning difficulties in maths/language (case history).				
10) The child fails regularly in specific aspects of maths/language even after being taught and re tested severally.				

Section E: Teacher-parent interaction over the child's academic work

How often do you interact with parents over the children's academic work?

Responses	**Never**	**Rarely**	**Sometimes**	**Often**	**very Often**
1) I inform parents about their children's strengths and weaknesses.					
2) I discuss with parents how to support their children's education.					
3) I give children homework and expect parents to assist children and sign the children's books.					
4) I use newsletters or notes to communicate with parents over their children's academic work .					
5) I discuss children's report card with parents.					
6) I raise my concerns with parents over children's areas of learning difficulties.					
7) I educate parents on how children grow to enable them note any deviation.					
8) I discuss with parents on how to help children in reading, writing and doing maths.					
9) I advice parents to take a child for assessment if there is consistent failure in maths or language only to assess learning disabilities.					
10) I listen to parents concerns about their children's learning needs.					

Section F: Teacher-pupil ratio

How will you rate the ratio of the number of children you are handling per class? (Tick one)

1)1:10.	
2)1:20.	
3)1:30.	
4)1:40.	
5)1:50.	
6)1:50 and above.	