

**SCHOOL BASED BARRIERS AFFECTING ACADEMIC PERFORMANCE OF  
LEARNERS WITH LEARNING DISABILITIES IN REGULAR SCHOOLS IN  
EASTERN ZONE OF NAKURU MUNICIPALITY ,NAKURU COUNTY, KENYA**

**BY**

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## DECLARATION

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

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## **DEDICATION**

To my beloved husband Naphtal Kirk who through his encouragement and support gave me strength to proceed during the trying period. To my loving children Purity, Enoch and Joy for perseverance and encouragement during my study period.

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**LIST OF ACRONYMS AND ABBREVIATIONS**

UNICEF	United Nations Children Education Fund
KISE	Kenya Institute of Special Education
UPE	Universal Primary Education
MDGs	Millennium Development Goals
EFA	Education for All
CFSE	Child Friendly School Environment
CBOs	Community Based Organizations
RoK	Republic of Kenya
FPE	Free Primary Education
LD	Learning Disabilities
CFS	Child Friendly Schools
NGOs	Non-Governmental Organizations
NSNE	National Special Needs Education
SSA	Sub Saharan Africa
MoEST	Ministry of Education Science and Technology
KCPE	Kenya Certificate of Primary Education
NCST	National Council of Sciences and Technology
SPSS	Statistical Package for Social Sciences (SPSS)

## ABSTRACT

The study sought to assess the school based barriers namely the learner, the teacher, the curriculum and the infrastructure that affect the academic performance of pupils with learning disabilities in regular schools in Eastern Zone of Nakuru Municipality in Nakuru County, Kenya. The study adopted a descriptive survey design. The research instruments included an interview schedule for the head teachers, questionnaires for the teachers and an observation schedule. The data collected was appropriately coded and analyzed using SPSS. Qualitative data was organized into themes, categories and patterns relevant to the study by tabulation. Quantitative data was presented using descriptive statistics such as percentages, means, frequency distribution tables, bar graphs, histogram and pie-charts. The study found that majority of learners had LD. It was also found that majority of teachers had not attended training in special needs which affected how they handled learners with LD. The study also found out that curriculum adaptation for learners with LD was not appropriate. The study concluded that; Lack of training of teachers in special needs to handle students with LD negatively affected the performance of learners with LD, failure to apply special teaching methods by teachers affected performance of learners with LD, teachers' attributes such as qualification, experience and adequate syllabus affected performance of learners with LD, the curriculum was not appropriate for learners with LD and this contributed to poor performance of learners with LD, lack of teaching aids contributed to poor performance of learners with LD and lack of enough affected the performance of learners with LD negatively. The study recommended more training for teachers to handle learners with LD. It was also recommended that the curriculum should be reviewed to make it more appropriate for learners with LD. The government should increase budgetary allocation to improve infrastructure in the primary schools. It is envisaged that the study findings will inform the Ministry of Education, policy makers and educators about the school based factors that affect performance of learners with LD in regular schools so that appropriate measures may be taken to remedy the situation. The study will also contribute literature to the field of study.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Introduction**

The study aims to assess the school based barriers namely the learner, teacher, the curriculum and the infrastructure that affect the academic performance of pupils with learning disabilities in regular schools in Eastern Zone of Nakuru Municipality in Nakuru County, Kenya. This chapter presents the background to the study, statement of the problem, purpose of the study, objectives of the study and research questions. Assumptions of the study, limitations and de-limitations of the study, significance of the study theoretical framework and conceptual framework are also presented.

#### **1.1 Background to the Study**

Education is a fundamental human right that is essentially meant to aid learners in realizing their potentials. Since the United Nations (1948) declaration that education is a human right, efforts have been made to ensure that children; both boys and girls across the world access education. However, it is now a common concern that the main challenge in education is not simply getting children into schools but also improving the overall quality of schooling and addressing threats to participation. As noted by United Nations Children Education Fund (UNICEF) (2001), if both quality and access are taken into consideration, then children enrolled in primary schools are likely to pursue and complete the full basic education cycle, achieve expected learning outcomes and successfully transit to secondary schools.

Quality education is a critical component of child development and a means of self-empowerment, independence and social integration. Children with disabilities are no exception. They need and deserve educational opportunities as much as other children. In fact, without educational opportunities, children with disabilities face huge barriers to full social and economic participation in society. Lacking adequate educational services and opportunities, children with disabilities will likely grow up to become economically and social dependent and vulnerable to long-term poverty (UNICEF, 2003).

According to Chadha (2001), one form of disability prevalent in children of school going age is the learning disability. This is a condition in which children of whom despite appearing 'normal' are unable to perform academically commensurate with their age and ability levels. Learning disability causes a discrepancy between the child's achievement and their actual intellectual ability. Due to this, children with learning disabilities require specialized education (KISE, 2002).

Children with Learning disabilities may 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 Mathematics (Mathematicss reasoning and Mathematics 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; Lerner, 2006).

Learning disabilities have several negative implications on the child's development. To begin with, a child with learning disabilities performs poorly and develops low self esteem. According to Woolery & Bailey (2003) the child becomes disenfranchised because his/her educational needs are not adequately met in the education services. The disability is a probable cause for the high drop-out rate among primary school children.

Researchers with interests in holistic development of children in schools have over the years come to a conclusion that beyond students own innate abilities, motivation and prior knowledge; learning occurs when systems of the home, community, schools and peers come together to form a protective circle that nurtures and develops students growth (Bergmann, Walker & Garfinkel, 1992). The reasoning is to improve each child's participation and learning in school, rather than concentrating on the subject matter and examinations.

Bergman et al. (1992) note that it is critical that the learning environment stress the importance of students and teachers learning together as a learning community. Such environments place children at the centre of learning and encourage their active participation in learning. This ensures that teachers give students the best education possible for their survival in their immediate society. The guiding principle has been derived from the UN declaration in 1948 that education is a human right that regards the best interest of the child as key both in planning and implementation of education policies. The rationale is thus to enhance quality standards of education by addressing

elements that influence the well being and rights of the child as a learner while improving other school functions in the process.

Despite many governments' efforts to put measures of achieving Universal Primary Education (UPE) so as to meet the international commitments such as Education for All (EFA) and the Millennium Development Goals (MDGs), many children around the world including those with various forms of disabilities continue being exposed to inhibitory environments to their development in schools (UNICEF, 2003). This study therefore would like to assess the school based factors namely the teacher, the curriculum and the infrastructure that could be inhibiting the performance of learners with learning disabilities in regular schools.

The issue of literacy development in the early years of schooling is a topic of inquiry that has received much attention in the recent past, in developed countries and many African countries. For instance, Zambian children are reading below the expected grade level (Matafwali, 2005; Ojanen, 2007), and far too many are at potential risk of being conventionally classified as reading disabled (Matafwali, 2010). According to Sessional Paper No 1 (Republic of Kenya, 2005) there is no accurate data on the number of learners with LD in primary schools in Kenya. However, According to the Ministry of Education in its National Special Needs Education (NSNE) policy paper launched in April 2010 (Daily Nation, 2010), school age going children with Learning Disabilities form the largest group of handicapped children in Kenya accounting for 5% of the total number of handicapped children.

In Kenya, access and participation of pupils with special needs in education is low and their needs are not being specifically addressed, especially children with behavioral difficulties and those with various forms of learning difficulties and attention deficit, gifted and talented. The emphasis on academic performance and examinations creates an unfavorable learning environment for children with special needs and disabilities and even moderate learning difficulties (Republic of Kenya (RoK), 2012). This poses a challenge to the integration and inclusion of children with such disabilities in regular schools in the country. This study sought to assess the school based factors namely; learners, teachers, curriculum and infrastructure that could be inhibiting the academic performance of learners with LD in regular schools.

### **1.2 Statement of the Problem**

Quality education has been noted as a critical component of child development and a means of self-empowerment, independence and social integration. Despite the Kenyan government efforts to implement policies like inclusion in education and Free Primary Education (FPE) program so as to enhance access and participation of all children in primary education, there are still concerns of many children in the country, including those with various forms of disabilities, facing inhibitory environments to their development in schools. Research has shown that children' learning and performance in school is dependent on various factors inside and outside school. Many studies have also enumerated the significances of school based elements like the teacher, the curriculum and the infrastructure on educational outcomes of learners. In Kenya generally, it has been noted that lack of specialized teachers, inadequate infrastructure and a curriculum

that emphasis on academic performance and examinations creates an unfavorable learning environment for children with special needs and disabilities and even moderate learning difficulties. It is against this background that this study sought to assess the school based barriers namely the learner, teacher, the curriculum and the infrastructure that affect the academic performance of pupils with learning disabilities in regular schools in Eastern Zone of Nakuru Municipality in Nakuru County, Kenya.

### **1.3 Purpose of the Study**

The study sought to assess the school based barriers namely the learner, the teacher, the curriculum and the infrastructure that affect the academic performance of pupils with LD in regular schools in Eastern Zone of Nakuru Municipality in Nakuru County, Kenya.

### **1.4 The Study Objectives**

- i. To determine the learner's based factors that affect academic performance of learners with LD in regular schools in Eastern Zone of Nakuru Municipality.
- ii. To determine the teachers' based barriers that affect academic performance of learners with LD in regular schools in Eastern Zone of Nakuru Municipality.
- iii. To establish the curriculum based barriers that affect academic performance of learners with LD in regular schools in Eastern Zone of Nakuru Municipality.
- iv. To find out the school infrastructural barriers that affect academic performance of learners with LD in regular schools in Eastern Zone of Nakuru Municipality.

### **1.5 The Research Questions**

- i. What are the learners' based factors that affect academic performance of learners with LD in regular schools in Eastern Zone of Nakuru Municipality?
- ii. What are teachers' based barriers that affect academic performance of learners with LD in regular schools in Eastern Zone of Nakuru Municipality?
- iii. What are the curriculum based barriers that affect academic performance of learners with LD in regular schools in Eastern Zone of Nakuru Municipality?
- iv. What are the schools' infrastructural based barriers that affect academic performance of learners with LD in regular schools in Eastern Zone of Nakuru Municipality?

### **1.6 Assumptions of the Study**

The study made the following assumptions:

- i. That all respondents would cooperate and provide reliable responses.
- ii. That the targeted schools had complied to the Ministry of Education policy on inclusion of learners with disability in education.

### **1.7 Limitations of the Study**

The study was conducted Eastern Zone of Nakuru Municipality which is an urban setting. It was not possible to conduct the study in both urban and rural area due to financial and time constraints. The demographic characteristics regarding learners with LD may differ with those in rural areas. This may limit generalizations of the findings.

### **1.8 Delimitations of the Study**

The study was limited to assessing the school based barriers namely the teacher, the curriculum and the infrastructure that affect the academic performance of pupils with learning disabilities in regular schools in Eastern Zone of Nakuru Municipality in Nakuru County, Kenya. The impact of each of the stated elements on the academic performance of the pupils was outside the scope of this study. Additionally, the study was limited to Learning Disability only as and hence other forms of disability were beyond the scope of the study.

### **1.9 Significance of the Study**

It is envisaged that the study findings will inform the Ministry of Education, policy makers and educators about the school based barriers that affect performance of learners with LD in regular schools so that appropriate measures may be taken to remedy the situation. The study will also contribute literature to the field of study.

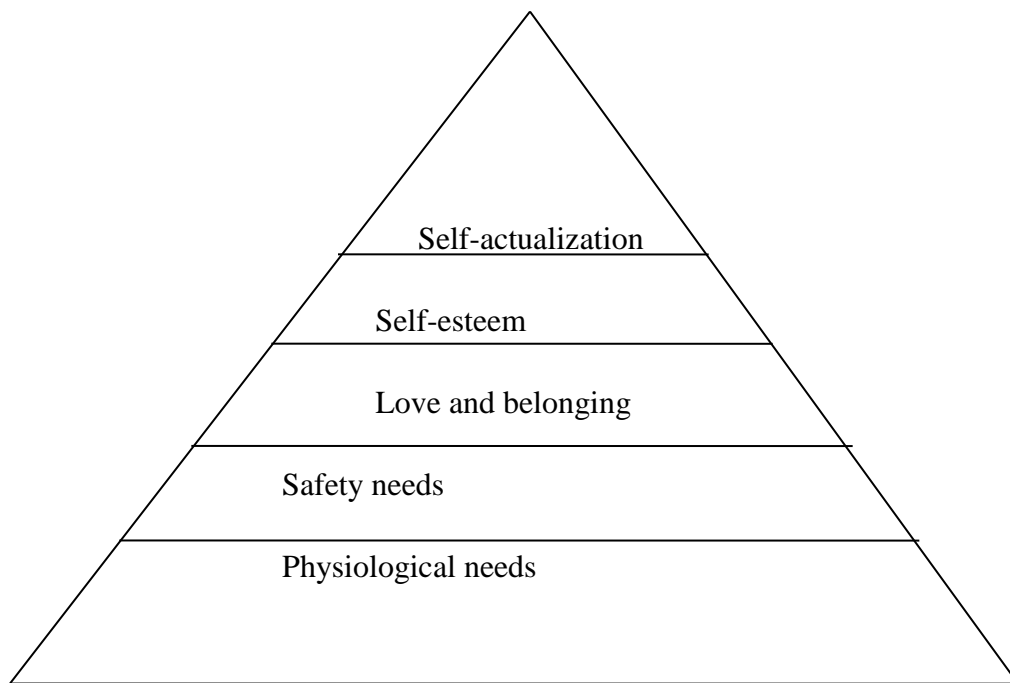
### **1.10 Theoretical Framework**

This study was guided by two theories; the basic needs theory by Abraham Maslow and constructivist theory.

#### **i. The basic Needs Theory by Abraham Maslow**

This theory deals exclusively with the hierarchical order of needs in a man. These include physiological, safety, love and belonging, self-esteem and self-actualization. The physiological needs include needs for food, clothing, health and shelter. These are survival needs and they form the base for all other needs. Without food, clothing and good health, a learner cannot attend school and concentrate on the subjects taught. The

learner needs to feel secure and safe at home and in school so as to be able to relate well with teachers and other students. The learner needs to cultivate this sense of belonging to enjoy affection. This could be distorted if the two lower needs are not met adequately thus making the learner's ability to move to the next level in the hierarchy difficult (Hayes, 2002).



**Figure 1.1: Maslow's Hierarchical order of needs**

Primary school education falls at the levels of physiological needs, safety needs, and love and belonging. The levels give one the desire to achieve what he/she wants in life and to get respected thus, the learner must climb the ladder progressively for their holistic personality development. If the needs in the three lower levels (physiological; safety and love and belonging) are not met, even if the learner joins primary school, he will eventually drop out (Debbie, 1992). Debbie on the other hand notes that if the three basic levels of needs are well catered for, the learner becomes visionary and will have a desire

to achieve and to occupy a position in the society thus reaching the self-actualized level. This facilitates completion of primary school level and a desire to move to higher levels in education.

This theory was deemed appropriate for this study because its principles can enhance the creation of a learner friendly school (CFS). According to UNICEF (2000) the characteristic of CFS is one in which the learning environment is conducive, teachers are friendly to the children, where the safety of children is adequately met and where the rights of all children are recognized irrespective of gender, family status, physical and mental abilities/disabilities and religious/ethnic differences.

## **ii. Constructivist Theory**

Instruction based on constructivist theory is currently supported for general education classes by university faculty and many educational organizations (Brooks & Brooks, 1999). One of the key ideas associated with constructivist theory is that learning should be meaningful and related to real life situations (Grobecker, 1999). Learners with learning disabilities will benefit from this approach because of their difficulty in generalizing from the classroom to other settings. With the realistic examples built in to the instruction, the learners have specific practice with generalization. Teachers following a constructivist perspective base their instruction on what the learners already know as a foundation (Duhaney & Duhaney, 2000). Therefore, to introduce new concepts, teachers need to discuss first some related ideas that are already familiar to the learners. This practice helps learners with LD because of their low self-esteem and repeated failure

experiences. If they have the chance to start with something familiar, new learning does not seem so overwhelming and frustrating to them. Another principle underlying the constructivist approach is a focus on key ideas and the relationships of these ideas within the subject areas (Grobecker, 1999) and across subject areas (Ellis, 1997). Applying this principle, teachers stress connections of important concepts that are the major ideas for the discipline rather than isolated bits of knowledge. Teachers need to prioritize and to teach the most important facts related to key ideas so that learners are not overwhelmed with memorizing since many learners with LD have significant memory deficits.

Active learning is an important facet of a constructivist approach to instruction. When learners are actively involved in the lesson, they learn and retain the information (Duhaney & Duhaney, 2000; Harris & Graham, 1996). Many of the discovery lessons in social studies, inquiry approaches in science, and whole language strategies in language arts incorporate a high level of learner involvement. Teaching learners to summarize, paraphrase, predict, and use visual images, which all involve active learning, help learners with LD to understand and remember the concept learnt. Role play, art, and group projects are also useful for clarifying and reinforcing instruction (Ellis, 1997). Such strategies are useful in motivating learners with LD, who tend to be more passive learners because of their history of failure (Lerner, 2013).

High level thinking skills, such as problem solving and analysis, are often thought to be too abstract and difficult for learners with learning problems, even though they are an important part of a constructivist curriculum. However, with some additional guidance

and preparation, it is possible and in fact beneficial to emphasize these skills with learners with LD (Ellis, 1997; Grobecker, 1999). Teachers can guide learners with LD to engage in complex writing process assignments, research projects, and other test-taking and study activities.

### 1.11 Conceptual Framework

**Figure 1.2: How School Based Barriers can enhance Learners Performance in School**

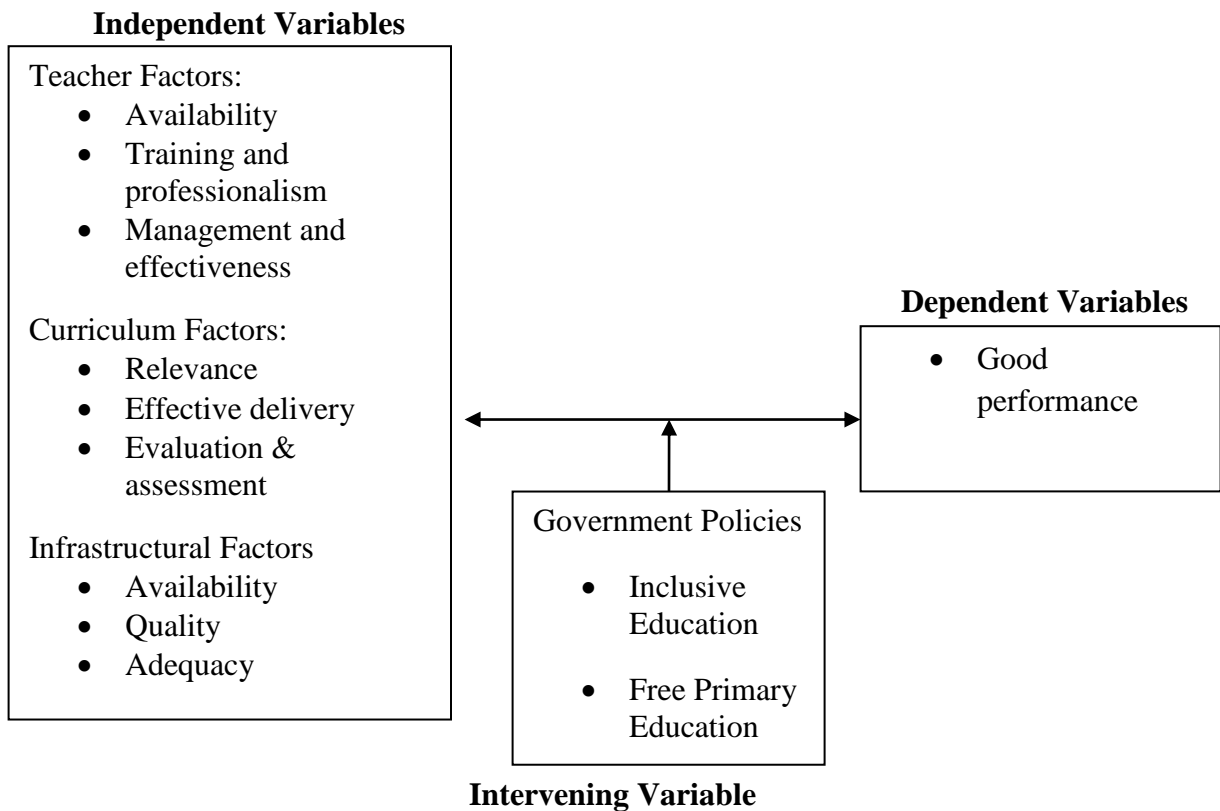


Figure 1.2 shows an interaction of various factors which cumulatively can influence the creation of an inclusive, protective and conducive learning environment that can enable good performance of the learners. The independent variables (IVs) which in this study are

the school based factors namely the teacher, the curriculum and the infrastructure can relate with the intervening variables, in this case the government policies such as inclusive education and FPE to enable realization good performance of all learners in primary schools.

### **1.12 Operational Definition of Terms**

**Child Friendly Schools:** Refers to a school where children have a right and freedom to learn to their fullest potential within a safe and welcoming environment (Unicef, 2009)

**Curriculum:** A course of study offered in a school (Pinar, 2012).

**Free Primary Education:** Primary education programme in which fees and levies for tuition have been abolished and instead financed by the government through the MoE (Ogola, 2010)

**Inclusive Education:** This refers to education through regular schools for learners with special needs and disabilities as opposed to the practice of using special schools and special units attached to regular schools (Wilson, 2003).

**Infrastructure:** The school buildings and facilities like classrooms, offices, toilets, playfields, water points etc (Lewin, 2008).

**Learning Disability:** It's a condition in which children despite appearing 'normal' are unable to perform, commensurate with their age and ability levels (Chadha, 2001).

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

The study aims to assess the school based barriers namely the teacher, the curriculum and the infrastructure that affect the academic performance of learners with learning disabilities in regular schools in Eastern Zone of Nakuru Municipality in Nakuru County, Kenya. This chapter presents a review of related literature to factors affecting the academic performance of learners with learning disabilities (LD). To start with, is learner based barriers followed by teacher based barriers. This is followed by curriculum based factors and infrastructural based barriers affecting the academic performance of learners with LD. Finally a summary of literature review is presented with a view of identifying the gaps.

#### **2.1. Learner Based Barriers Affecting the Academic Performance of Learners with LD**

Reading problem is the most frequently reported academic problem for those with learning disabilities (Bender & Williams, 2004). Examples of areas in reading in which learners with learning disabilities often problems have are in word recognition and reading comprehension. As a group, learners with word recognition problems can display a number of characteristics either in isolation or in combination. These include mispronunciations; omitting, adding, or substituting words; reversing letters or words; and difficulty blending sounds together.

Mathematics is another area in which a learner with learning disabilities might experience problems. Areas in which learners with learning disabilities have been reported as having difficulties include calculation, knowledge of mathematics facts, understanding of mathematics concepts, and problem-solving skills (Smith, 2004). Related areas include difficulty with word problems (Bryant & Dix, 1999), math anxiety (Baloglu & Kocak, 2006), and retrieving math information from long-term memory (Geary, 2003).

Many learners with learning disabilities display problems in the overall area of written language or written expression. Problems with handwriting and spelling often lead to difficulty in composing written products (Berninger & Amtmann, 2003; Graham, 1999), and it appears that many learners with learning disabilities have more difficulty with compositional writing than with writing single words or sentences (Mayes, Calhoun, & Lane, 2005). Compositional writing involves aspects such as capitalization and punctuation, vocabulary, organization, and theme development. For example, a learner with a learning disability in this area might write a story that is short; is not well thought out; and has numerous capitalization, punctuation, and spelling errors.

The importance of language in the field of learning disabilities is well appreciated. learners with learning disabilities in this area might have problems in expressive language (producing language), receptive language (understanding language), or in both (Hallahan et al., 2005). It is important to identify language problems because they are directly related to academic areas, particularly reading and written expression.

The above literature identifies common problems experienced by learners with LD as reading, mathematics, written language, expressive language and understanding language. These problems in-turn contribute to poor academic performance (Graham, 1999).

## **2.2. Teacher Related Barriers that Affect academic Performance of Learners with LD in Regular Schools**

The depth and scope of the teachers training are critical in determining the academic performance of Learners with LD in a school (Jenny & Snell, 2008). According to Meese (2002), a teacher with sufficient professional training in SNE has the ability and competency to adapt the curriculum to suit learners with Learning Disabilities. This could in turn contribute to improved academic performance of learners with LD.

Teachers are held accountable for learners' performance, sometimes to unrealistic levels especially regarding the Learners with learning difficulties (Ondiek, 1986). The teacher's experiences, values, attitudes and expectations, particularly in respect to the student, affect how the teacher instructs the child and how their interaction develops. Inclusion of all children within the classroom has brought about a new challenge for teachers.

A typical class may consists of gifted children, slow learners, mentally retarded children, hyperactive children, emotionally challenged children, and children from low socio-economical status. With such a diverse combination, classroom management, along with focusing on delivering a differentiated instruction that targets each student individually in

the classroom has made a regular education teacher's job beyond difficult. (Friend, Cook, Chamberlain, & Shamberger, 2010).

Sucuoglu Akalin, Sazak-Pinar, and (2010) give information on teachers and classroom management in inclusive classrooms in Turkey. The inclusive classrooms in the study have at least one or more students diagnosed with a LD. However, teachers were not trained to provide accommodations or modifications to adhere to this mandate. Students were mainstreamed, even though few teachers were adequately trained in an academic setting to provide for the needs of students with disabilities. Equally important was a study conducted by Fallon, Zhang, Kim (2011), which focused on training teachers to manage the behaviors of students with LD in the inclusive classroom in China. The study concluded that many general education teachers lack the skills and knowledge necessary to effectively manage these challenging behaviors.

Other Studies in British system and an American state also revealed inadequate training for teachers to handle LD in inclusive classes. Few teachers have adequate training in the management of challenging behaviours, and it is such behaviour that is a key causative factor in the failure of many inclusive programs (Carr et al., 1991; Chandler 2000; McMahon & McNamara 2000). Both pre-service and in-service courses that address the skills and the attitudes of teachers towards students with LD are deemed insufficient by many teachers (Bartak and Fry 2004; Gould & Vaughn 2003; Jahnukainen & Korhonen 2003).

Angrist and Lavy (2001) observe that lack of adequate and proper training received by teachers lead to a reduction in their pupils' test scores in Sub-Saharan countries Kenya included. Thus, lack of adequate teacher training to handle both the disabled and non-disabled learners in the same class negatively affects the success of inclusive education which ultimately affects academic performance negatively.

Teachers' attitudes and perceptions is another challenge affecting performance of learners with LD. Australian research has consistently revealed that many teachers, while philosophically accepting the notion, are resistant to the inclusion of students with significant problems, particularly those with more severe intellectual disabilities, and emotional or behavioral disorders (Conway 2002; Westwood & Graham 2003).

Thomas (1985) compared the attitudes of teachers in a British system with those in a US state, and found that the overwhelming majority reported negative attitudes towards the integration of students with LD. Studies over the next two decades in different countries consistently supported these findings. (Bartak & Fry 2004; Hastings & Oakford 2003; Ivey & Reinke 2002; Jahnukainen & Korhonen, 2003).

Scruggs & Mastropieri, (1996) conducted an analysis, which examined the attitudes of over 10,500 teachers, and found that two thirds were only prepared to integrate students who did not require significant additional skills or time. Jobling & Moni (2004) found that most of their sample of pre-service teachers believed that responsibility for the academic progress of students with LD would remain with special education personnel, and that the purpose of placing these students in mainstream classrooms was for

socialization purposes. However, Studies show that attitudes of teachers are critical in ensuring that children with disabilities stay in school and are included in classroom activities. A study carried out to compare the attitudes of teachers towards students with disabilities in Haiti and the United States showed that teachers are more likely to change their attitudes towards inclusion if other teachers demonstrate positive attitudes and a supportive school culture exists (Dupoux , Wolman , & Estrada , 2005).

Time demand in teaching learners with LD is another challenge that affects performance. According to Schumm & Vaughn, (1992) most teachers want to help low-achieving students, but do not have the time to prepare special materials. Time was also the major challenge associated with inclusion according to research by Westwood and Graham (2003). Balancing the need for almost constant supervision, and the development of individualized programming and complex behavior management plans with the needs of the whole class affected the willingness of teachers to include high demand students in their classrooms. Added to these are the time demands of collaborating with different professionals, from school-based special education staff, to itinerant support personnel, to representatives from outside agencies (Avrimides et al., 2000).

The literature reviewed indicates the teacher related factors affecting learners with LD as; lack/inadequate training to handle LD, perceptions of teachers towards inclusion of learners with LD and time challenges as learners with LD require more time to prepare teaching and learning resources. These findings are mostly from developed countries with limited studies in Kenya. This forms a research gap in order to compare the teacher

challenges affecting performance of learners with disabilities with the already available literature.

### **2.3. Curriculum Based Barriers Affecting the Academic Performance of Learners with LD**

Many governments in the developing countries have not been able to effectively implement inclusive education policy framework. In some countries like Kenya, the education policy is an exclusively one-sided policy and fails to meet the needs of the challenged learners in inclusive education arrangement. One case in point is the endlessly controversial national examinations, which fails to capture learners' diverse backgrounds and needs (Sugiharto, 2008).

According to a study in Los Angeles(USA) conducted by Oakes and Saunders (2002), shortages of teaching and learning materials has a negative impact on the learners especially those with LD and the ones with less knowledge about a subject. This forces most of the parents to remove their children from the schools and take them to special schools.

Inadequate teacher aided time and curriculum support in the form of modified materials were highlighted by a number of researchers (Avrimidis et al., 2000; Westwood & Graham, 2003) as factors affecting the performance of learners with LD in Australia. Teachers need greater access to differentiated resources.

Adapting curriculum requires a teacher to understand the special needs of the learners with LD in terms of content delivery (Lerner, 2006). It entails selection of relevant and

attractive learning and teaching resources, identifying the specific problem areas in specific subjects and teaching the learner as an individual not as a group (Kirk, Gallagher, Anastasiow & Coleman, 2006). According to Heward (2003), a teacher with professional training in Special Needs education should be able to identify specific curriculum content areas to adapt.

A study in USA by Kirk, Gallagher, Anastasiow and coleman (2006) found that the regular school curriculum is not adapted by teachers for learners with LD because teachers lack the necessary skills. In their view, the extent to which any curriculum can be adapted to enhance achievement of learners with LD depends on the ability of the teacher to select materials of high interest to reinforce the basic curriculum, use manipulative or hands on materials, create activities that require active participation of the learners and use visual aids that supplement aural and written information. Lerner (2006) also noted that the regular school curriculum is rigid, more of a routine and does not provide space for adaptation. Kauffman (2005) stated that the scale and scope of curriculum adaptation would only be determined after a thorough assessment of an individual learner which regular teachers are not able to do due to lack of relevant skills in special needs education.

Learners with learning disabilities experience problems in specific academic skill areas mainly reading, language, writing and mathematics (Lerner, 2006). It is therefore important that teachers should adapt the curriculum content to respond to the learners with Learning disabilities personal talents and interests. In support of this, Bender (2007)

noted that learners with LD exhibit different styles of learning and teachers need different methods at their disposal hence the needs for adaptation. Wang (2007) is also in agreement with the idea that teaching method is an aspect of curriculum that requires adaptation in order for the teachers to deliver the information to the learners accordingly.

Studies have shown that flexible approaches in education are needed to respond to the diverse abilities and needs of all learners. According to UNESCO (2009), where curricula and teaching methods are rigid and there is a lack of appropriate teaching materials – for example, where information is not delivered in the most appropriate mode and teaching materials are not available in alternative formats, learners with LD are at increased risk of exclusion. UNESCO (2009) adds that assessment and evaluation systems are often focused on academic performance rather than individual progress and therefore can also be restrictive for children with special education needs.

The above literature identifies rigidity of the curriculum as a factor affecting the performance of learners with LD. In inclusive education, the curriculum should be adopted to address the peculiar needs of children with special needs (Nwachukwu, 2006). The reviewed literature has also indicated that teachers should be able to choose teaching and learning materials in such a way that learners with LD can benefit.

#### **2.4. Infrastructural Based Barriers that Affect the Performance Learners with LD**

In sub-Saharan Africa and the poorest counties in Asia, the challenge of providing adequate primary education facilities is huge. Worldwide, to meet the Education for All (EFA) goal of providing universal access to primary education it is estimated that up to

10 million classrooms need to be built at a cost of US\$72 billion (World Bank, 2003). Department for International Development (DfID) spending on educational facilities in 2005/6 alone exceeded £41 million (US\$58 million) spread across at least 12 countries (Smawfield, 2006). Primary school infrastructure in Africa has not been growing fast enough to accommodate all school-age children, and a large share of the existing stock is unsafe and unsuitable for learning. At the same time, resources are often inefficiently and inequitably allocated, allowing greater access for some populations than for others. If these trends continue, the primary school infrastructure needed to provide quality education for all children by 2015 will be grossly inadequate in volume, quality, functionality, and distribution (World Bank, 2006).

Lewin (2008) says Classroom building costs in sub-Saharan Africa are often estimated at about \$10,000 per classroom. In Kenya, there are over 80 pupils per class and 50 students per class in primary and secondary schools respectively. These are the so called 'unteachable' classes. It does not only show discomfort but also compromises the air quality and ambience in such classes. This in turn distracts the learner from achieving what brought them to school in the first place.

A major evaluation of the World Bank Ghana education program concluded that increasing the availability and quality of classrooms and instructional materials directly contributes to both educational attainment and achievement and that replacing unusable classroom blocks with new and reducing journey times to schools both increase enrolment (World Bank, 2004). This emphasizes the importance of coordinating

infrastructure with other educational inputs and other factors that affect access, for example improving local transport networks.

African schools also lack an adequate supply of furniture. Shortage of seats amounts to 14 percent in Burkina Faso (2002/03), 24 percent in Ghana, 33 percent in Lesotho (Group 5 2006a and 2006b, World Bank 2005a). In Malawi, only 35 percent of sixth grade pupils had a desk to sit at in 2000 and a mere 29 percent had writing places (World Bank, 2004). Lewin (2008) says that expansion of primary education requires the purchase of furniture, equipment, and learning materials; and the provision of supporting infrastructure.

Since the introduction of FPE funding in Kenya, physical facilities in public schools remains the major impeding factor to the achievement of overall effectiveness in public schools. MOEST (2005) hypothesizes that primary education continues to experience many challenges relating to access and equity. Key among them is overstretched facilities due to overcrowding in schools. Other problems in the quality of learning relate to poor resource management in primary schools, poor learning environment due to overcrowding and inadequate facilities. For special education there is a double complication. The government had the intention of combining learners with disabilities with the mainstream ones. Yet these learners are supposed to compete for facilities with the regular ones. This will raise the issue of inappropriateness of infrastructure, inadequacy of facilities and lack of equipment, which make it difficult to integrate special education in regular programs.

## **2.5. Summary of Literature Review**

Inclusion of all children within the classroom has brought about a new challenge for teachers. Many general education teachers lack the skills and knowledge necessary to effectively manage the learners with LD. Another teacher challenge that can affect the academic performance of learners with LD is negative teacher attitudes and perceptions to the inclusion of such learners. Time demand in teaching learners with LD is another challenge that affects performance.

The nature of the curriculum can affect the performance of learners with LD. Regular school curriculum is rigid, more of a routine and does not provide space for adaptation for learners with LD. However, regular school curriculum is not adapted by teachers for learners with LD because teachers lack the necessary skills

Finally, infrastructural challenges can affect performance of learners with LD. High student teacher ratio due to shortages in classroom makes it difficult for special attention for learners with LD. Many primary schools have shortage of furniture which makes uncondusive for learners hence lowering attention. This in turn may affect performance of learners with LD.

This study sought to assess the school based factors namely the learners, teacher, the curriculum and the infrastructure and how they affect the performance of pupils with learning disabilities in regular schools in Eastern Zone of Nakuru Municipality in Nakuru County, Kenya.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.0 Introduction**

The study aims to assess the school based barriers namely the learner, teacher, the curriculum and the infrastructure that affect the academic performance of pupils with learning disabilities in regular schools in Eastern Zone of Nakuru Municipality in Nakuru County, Kenya. This chapter discusses the methodology for the research process and gives an account on research design, target population, sampling procedure and sample size, instrumentation, piloting, data collection procedures and data analysis.

#### **3.1 Research Design**

This study adopted descriptive survey design. This design was deemed appropriate for the study since as Mugenda and Mugenda (1999) opines, surveys can be used in explaining or exploring the existing status of two or more variables at given point in time. Burns and Grove (2003) also states that descriptive studies are designed to obtain pertinent and precise information concerning the current status of phenomena and wherever possible draw valid general conclusions from the facts discovered. Orodho (2009) adds that descriptive surveys allow a researcher to gather information, summarize, present and interpret for the purpose of clarification. This survey therefore aimed at assessing the school based barriers namely the learners, teachers, the curriculum and the infrastructure that affect the academic performance of pupils with LD in regular schools in Eastern Zone of Nakuru Municipality in Nakuru County, Kenya.

### **3.2. Variables**

The independent variables are the school based barriers namely; learners, teachers, the curriculum and infrastructure. The dependent variable is academic performance of learners with LD.

### **3.3 Location of the Study**

This study was carried out in Eastern Zone of Nakuru Municipality, Nakuru County. This is East of Nakuru town which is 139 KM North West of capital city Nairobi. The region has attractive tourists attraction such us lake Nakuru, Menengai Crater, and Hyrax. According to RoK (2009), Nakuru municipality has recorded increase in population in the recent past. This has led to increased pressure for basic services such as education, housing, health, water and sanitation. Educational services in Nakuru are mainly provided by the Municipal Council and private sector.

The researcher preferred this area in carrying out the study due to the familiarity and professional interest in education. According to Borg and Gall (1989), the ideal setting for any study is the one that is directly related to the researcher's interest. Singleton (1993) also noted that the ideal setting for any study is one that is easily accessible to the researcher and that which permits instant rapport with the informants.

### **3.4 Target Population**

Mugenda and Mugenda (2003), defines target population as that population to which a researcher wants to generalize the results of a study. The study targeted all the public primary schools in Eastern zone of Nakuru Municipality, all the 23 head teachers and all

the 274 teachers 817 pupils in class three. The total number of targeted respondents was 1114.

### **3.5 Sampling Procedure and Sample Size**

The study used probability sampling to select the sample schools from all the 23 public schools in the district where there were 274 teachers and 817 pupils in class three. Systematic sampling technique was used to select 15 primary (65%) schools from a list organized in order of performance by public primary schools in Eastern zone of Nakuru Municipality in the KCPE examination 2012. Orodho (2008) states that systematic sampling involves selecting members at equal intervals by picking some random point in the list and every  $n^{th}$  element is selected until the desired sample size are obtained. All the principals from the 15 schools selected were involved in the study. From each of the 15 schools, stratified proportionate sampling was employed to select 6 teachers. Ten pupils (18%) in class three from each school were purposively selected. Therefore the study sample included 255 participants (23%), that is, 15 head teachers, 90 teachers, and 150 standard three pupils. Kothari (2003) suggests that a sample size of 10% -20% is appropriate for descriptive studies. Therefore, the sample for this study (23%) was considered sufficient. The sample size for the study is presented in Table 3.1.

**Table 3.1: The Sample Size for the Study**

<b>Category</b>	<b>Target population (N)</b>	<b>Sample size (n)</b>	<b>Percentage (%)</b>
Head teachers	23	15	65
Teachers	274	90	33
Learners	817	150	18
<b>Total</b>	<b>1114</b>	<b>255</b>	<b>23</b>

### **3.6 Research Instrument**

The researcher employed the use of various instruments which included Interview schedules, questionnaires and observation schedules to elicit the required data.

#### **3.6.1 Interview Schedule**

According to Orodho (2009: 179) an interview schedule makes it possible to obtain the data required to meet the specific objectives of the study. This type of instrument was preferred because head teachers are busy people in a school and any little time granted to the researcher should be utilized to collect as much data that is appropriate for the study as possible. The instrument was also appropriate to be used when handling small number of respondents like the head teachers.

#### **3.6.2 Questionnaires**

The researcher designed questionnaires to collect data from the teachers and students. According to Kombo and Tromp (2006) questionnaires facilitate the collection of data from a large sample and diverse regions. The questionnaire instruments were preferred for this study because they allow greater uniformity of questions, hence ensuring greater

comparability of the information elicited by each set. It was also preferred since it can be used in case of large numbers of respondents within a short time thus cutting down on cost of time. The questionnaires were used to collect data from sampled teachers.

### **3.6.3 Observation Schedule**

Kombo and Tromp (2006) explain that an observation schedule is used as a checklist to record what the researcher observes during data collection. In this study, the observation schedule was used to assess the availability of infrastructure in the school and delivery of the curriculum in the sampled school.

### **3.6.4 Learners Test**

This comprised of written tests in mathematics and English. They were administered to pupils in class three although the level of difficulty was for class two. The purpose of the test was to help in identifying the kind of LD of the learners concerning arithmetic, number concept, listening skills, writing skills, reading skills and overall communication skills. The test was piloted in two schools in Eastern Zone of Nakuru municipality before being administered on the sampled schools.

### **3.7. Pilot Study**

Before collecting data for the study, the researcher carried out a pilot study in two randomly selected primary schools in eastern zone of Nakuru municipality. These schools were not sampled in the actual study. Six teachers, five learners and head teachers of the two primary schools were involved in the pilot study. The learners were given the tests while the teachers were given the questionnaires and the head teachers were interviewed. The pilot study was necessary in order to determine the validity and reliability of the

research instruments. Piloting enabled the researcher to detect weakness or vague statements in the research instruments in order to take corrective measures.

### **3.7.1 Reliability of the Instruments**

According to Mugenda and Mugenda (2003) reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials. Test-retest method was used to check the reliability of the instruments. The instruments were piloted in two primary schools not included in the final sample of schools. Here, the tools were given to the respondents to fill in and then the answered tools were scored manually. After a period of two weeks, the same instruments were administered to the same group and again scored manually. A comparison of the first and second scores was made using Pearson's product moment correlation coefficient to determine the reliability index of the instruments. According to Orodho (2008) a correlation coefficient of  $\geq 0.7$  is considered high enough for judging the instruments as reliable and the researcher adopted this recommendation.

### **3.7.2 Validity of the Instruments**

Mugenda and Mugenda (2003) define validity as the accuracy and meaningfulness of inferences, which are based on the research results. Thus, content validity is a non-statistical method used to validate the content employed in the research instrument. Firstly, the researcher went through the instruments and compared their content with the set objectives to ensure that they contain all the information that address the study objectives. Secondly, the researcher discussed with supervisors and authorities in the area

of LD about content validity of the instruments and thereafter, incorporated their recommendations and inputs so as to improve on the validity of the instruments.

### **3.8 Data Collection procedure**

The researcher interviewed the head teachers of the sampled schools and observed learners in a 35 minutes lesson in Kiswahili and English. The teachers were given one week to fill the questionnaires. This was aimed at ensuring that the respondents had enough time. After the given period the researcher collected the questionnaires.

### **3.9 Data Analysis**

On completion of data collection and before embarking on compiling and coding the data, the researcher checked for completeness of the filled questionnaires. The data were then arranged and grouped according to the particular research objectives. Qualitative data from open-ended questions was analyzed according to themes derived from the objectives and presented through narratives according to the objectives.

Quantitative data derived from the close ended questions were organized for computer analysis using Statistical Package for Social Sciences (SPSS). Results were presented using descriptive statistics such as percentages, means and frequency distribution tables, bar graphs, and pie charts.

### **3.10 Logistical and Ethical Considerations**

Once the research proposal was accepted by the supervisors and the School of Education, an introductory letter was obtained from the Graduate School through the Department of Educational Management, Policy and Curriculum Studies Kenyatta University. The letter

was taken to the National Council for Science, Technology and Innovation (NACOSTI) for issue of research permit. The researcher then visited the sub-county education offices to notify the Sub-County Director of Education (SCDE) of the research. After obtaining an authorization letter from the SCDE, the researcher then visited the selected schools and notified the headteachers of the impending research. Upon acquiring permission from the principals, the researcher distributed the questionnaires to the respondents. The respondents were assured that the information they would give would be treated with confidentiality and anonymity.

## CHAPTER FOUR

### PRESENTATION OF FINDINGS, INTERPRETATION AND DISCUSSION

#### 4.0. Introduction

The purpose of the study was to investigate the school based factors affecting performance of learners with learning disabilities (LD) in regular schools in eastern zone of Nakuru Municipality in Nakuru County, Kenya. The analyzed findings of the study are presented, interpreted and discussed in this chapter based on the research objectives which were;

- i. To determine the teachers based barriers that affect performance of pupils with LD in regular schools in Eastern Zone of Nakuru Municipality.
- ii. To establish the curriculum based barriers that affect performance of pupils with LD in regular schools in Eastern Zone of Nakuru Municipality.
- iii. To find out the school infrastructural barriers that affect performance of pupils with LD in regular schools in Eastern Zone of Nakuru Municipality.

#### 4.1. Demographic Information

Fifteen primary schools out of 23 (65%) in Eastern Zone of Nakuru Municipality participated in the study. The respondents comprised of the 15 head teachers of the sampled schools and six teachers from each school. Two written tests were also administered to 150 class three pupils to help in identifying learners with LD.

Eleven of the head teachers (73%) were males while 4 head teachers (27%) were females.

Regarding the highest level of academic qualification, 3 head teachers (20%) had Master

of education degree, 6 head teachers (40%) had Diploma in education and the remaining six (40%) were P1 certificate holders. The length of service for the head teachers both as a head teacher and as a teacher is represented in Table 4.1 below.

Concerning the teachers, 61 (68%) were females while 29 teachers (32%) were males.

The teachers' highest level of education is indicated in Table 4.1.

**Table 4.1: Teacher's Highest Level of Education**

<b>Highest level of education</b>	<b>No. of teachers (n= 90)</b>	<b>%</b>
Diploma in education	33	37
Bachelor of education	24	26
Certificate of education (P1)	22	24
Un trained	7	8
Master of Education	4	5
Total	90	100

Table 4.1 show that 33 teachers (37%) had a diploma in education, 24 teachers (26%) had Bachelor of education degree, 22 teachers (24%) had a certificate in education (p1), 7 teachers (8%) were Untrained while 4 teachers (5%) had Masters of education.

#### **4.2. Identification of Learners with Learning Difficulties**

The researcher sought to determine whether the sampled learners actually had Learning Disabilities. Written tests in English and Mathematics were administered to the learners.

The tests given to the class three pupils had a level of difficulty for class two pupils. This was deemed appropriate since learners with LD could easily be identified if they performed poorly in tests belonging to a lower class. The results of the tests are presented in Table 4.2.

**Table 4.2: Results of the English and Mathematics Given to learners**

Marks (%)	English		Mathematics	
	<u>No. of Pupils</u>	%	<u>No. of pupils</u>	%
0	141	94	129	86
1-10	7	5	13	9
10-20	2	1	8	5

Table 4.2 shows that the learners generally performed poorly with 94% and 86% of the pupils scoring 0% in English and Mathematics respectively. Furthermore, only a handful of learners scored up to 20% in the two subjects. These tests therefore formed a basis of qualifying the learners as having Learning Disability.

The researcher also observed the learners in their respective schools in a lesson of 35 minutes for both English and Kiswahili. The observation further qualified the sampled students as having LD. For instance in English, the problems were evident in reading, writing and verbal communication. Majority of the sampled learners could not read a sentence fluently compared to their peers in the same class. Additionally, the handwriting was very poor with no separation of words. Furthermore, majority could not speak a sentence in English. Concerning Mathematics, Learning Disability was exhibited by failing in simple arithmetic and number concepts even after taking too long in a question. The researcher also qualified LD among the sampled students through professional reports of the teachers. However, only a few teachers (6%) of those who had undergone through training availed such reports that could specify the nature of LD.

#### 4.2.2. Categories of Learning Disabilities

The categories of Learning Disabilities identified through the written tests, observation and teachers' reports are presented in Table 4.3

**Table 4.3: Categories of Learners with LD**

Type of LD	No. of Pupils	%
A combination of LD	94	63
Communication Problems	21	26
Simple Arithmetic	17	21
Number Concept	16	20
Listening problems	15	19
Reading Problems	13	16

Table 4.3 shows that 94(63%) of the sampled learners had a combination of several learning difficulties. Twenty one (26%) learners had communication problems, 17(21%) learners had problems in simple arithmetic while 16 (20%) learners had problems in number concept. Furthermore, 15 (19%) learners had listening problems and 13(16%) had reading problems.

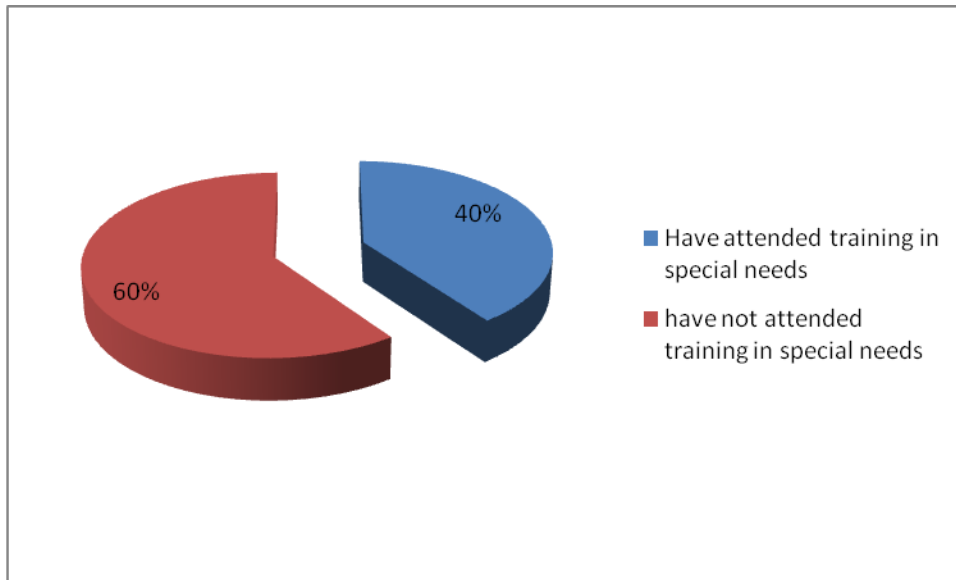
#### 4.3. Teacher Based Barriers that Affect Performance of Pupils with LD in Regular Schools in Eastern Zone of Nakuru Municipality

The first objective was to determine the teachers based factors that affect performance of pupils with LD in regular schools in Eastern Zone of Nakuru Municipality. To start with, the Head teachers and Teachers were asked whether they had undergone training in special need education particularly handling learners with LD. Nine head teachers (60%) indicated that they had not undergone training in special needs education while the rest( 6

(40%) head teachers) stated that they had undergone training in special needs education.

The head teacher's responses are presented in Figure 4.1.

**Figure 4.1: Head teachers' Responses on attending Training Course in Special Needs Education**



The teachers' responses on attending training courses in special education are presented in Table 4.4.

**Table 4.4.: Teachers' responses on attending training in special needs education**

Special needs training	No. of teachers (n=90)	%
Have not attended special education training course	62	69
Have attended special needs education training course	28	31

Table 4.4 shows that about two thirds of the teachers had not undergone a training course in special needs education while a third of the teachers had undergone the training.

It can be noted that majority of head teachers and teachers had not attended training in special needs. This implies that majority of the teachers do not have the necessary skills to handle learners with LD which in turn can contribute to poor academic performance of the learners. This studies in therefore consistent with other studies that found that Both pre-service and in-service courses that address the skills and the attitudes of teachers towards students with LD are deemed insufficient (Carr et al., 1991; Chandler 2000; Bartak and Fry 2004; Gould & Vaughn 2003; Jahnukainen & Korhonen 2003).

The researcher also sought to find out whether the head teachers and teachers had attended in-service training for handling learners with LD. Only two head teachers (13%) attested that they had been inducted on handling learners with LD. As far as the teachers are concerned, 7 of them (8%) indicated that they had attended in-service training on learners with LD.

The researcher then sought to find out from the head teachers and teachers the effect of training on special needs on the academic performance of learners with LD. Through the head teachers interviews it was apparent that lack of training of teachers in special needs negatively affected the performance of learners with special needs. For instance one head teacher stated, *“training of teachers in special needs would expose teachers to better teaching methods appropriate for learners with LD in inclusive classrooms thereby improving performance”*. The responses of teachers on the effect of training on special needs education on performance of learners with LD are presented in Figure 4.2.

**Figure 4.2: Teachers' responses on influence of lack of special needs education on academic performance of learners with LD**

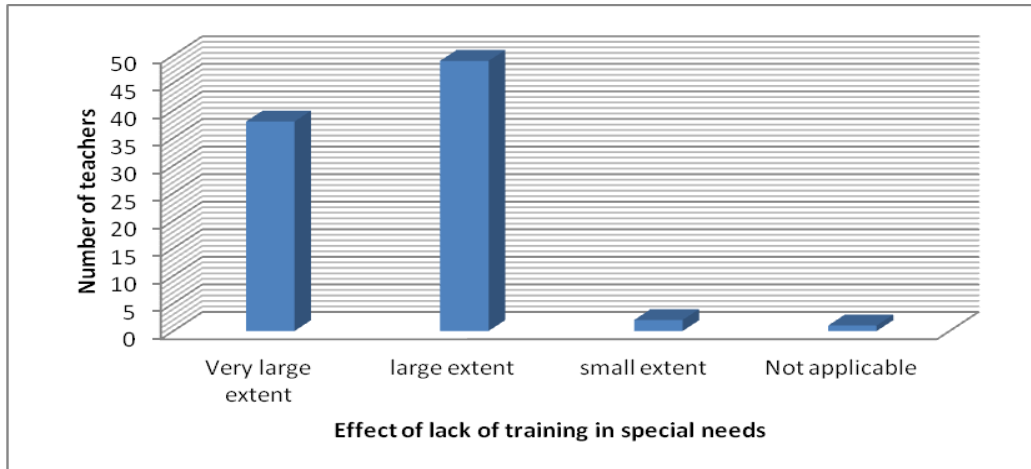


Figure 4.2 shows that majority of teachers were of the opinion that lack of training in special needs affected performance of learners to a large extent. The study therefore found out that lack of training in special needs education negatively affected the performance of learners with LD. These findings are support several studies. For instance, Jenny and Snell (2008) pointed out that, the depth and scope of the teachers training are critical in determining the academic performance of Learners with LD in a school. Meese (2002) opines that a teacher with sufficient professional training in SNE, a teacher has the ability and competency to adapt the curriculum to suit learners with Learning Disabilities. This could in turn contribute to improved academic performance of learners with LD.

The researcher also sought to find out the strategies used by teachers in handling learners with LD in inclusive classrooms. Their responses are presented in Table 4.5.

**Table 4.5: Strategies used by teachers in handling learners with LD in inclusive classes**

Strategy	Number of teachers (n=150)	%
Holistic approach	97	92
IEP	17	16
Thematic tutoring	12	11
Projects	8	8
Diagnostic tutoring	7	7
Task analysis	7	7
Field trips	5	5
Peer tutoring	8	8

Table 4.5 shows that majority of teachers (92%) were applying holistic approach in inclusive classrooms, 17(16%) were applying IEP while 12 (11%) thematic tutoring. Furthermore 8(8%) of the respondents indicated that they applied peer tutoring in the inclusive classrooms, 8 (8%) used projects, 7(7%) used diagnostic tutoring, 7(7%) used task analysis while 5(5%) applied field trips. These results indicates that majority of the teachers were using direct instruction which is more teacher centered. This implied that the teachers most likely did not understand these methods due to lack of skills.

When asked whether lack of use of special methods in teaching learners with LD led to poor academic of such learners, the respondents answered as indicated in Table 4.6.

**Table 4.6.: Teachers' Opinions on how lack of use of Special Teaching Methods affected Performance of learners with LD**

<b>Lack of use of special methods contribute to poor performance of learners with LD</b>	<b>No of teachers</b>	<b>%</b>
Strongly Agree	98	93
Agree	4	4
Disagree	3	3
Strongly Disagree	0	0

Table 4.6 shows that majority of the respondents (93%) were of the opinion that lack of use of special methods in teaching and learning of learners with LD led to poor performance of the learners. Only about 3% of teachers were of the opinion that special methods did not affect performance of learners with LD. These findings are supported by Swanson (2001) who opines that teachers teaching in inclusive classrooms should have a variety of special teaching methods to motivate learners with LD to learn and perform better. Furthermore, Ndurumo (2002) notes that special programs like individualized educational program (IEP) assist the learners on individual educational needs hence contributing to improved performance of learners with LD.

The researcher also enquired from the head teachers and teachers on their attitudes on inclusion of learners with LD in regular classrooms. Thirteen head teachers (87%) supported inclusion of learners with disability while two teachers (13%) did not support inclusion of such learners. The head teachers in support of inclusion of learners with LD

indicated that inclusion would ensure such students are not discriminated which could motivate them to perform better academically. The head teachers who were not in support of inclusion of learners with disabilities argued that due to their difficulties in learning, they could not cope with learning pace of the regular learners. This they indicated would lead to poor performance of the learners with LD.

Similarly majority of teachers 78% of the teachers supported inclusion of learners with disabilities in regular classrooms. This study therefore disagrees with Jobling & Moni (2004) who found that most of teachers were of the opinion that learners with LD should remain with special education personnel. Scruggs & Mastropieri, (1996) had also found that majority of teachers were only prepared to integrate students who did not require significant additional skills or time. It is therefore notable that there has been change in attitudes among teachers towards inclusion of learners with LD over the years.

Furthermore, the researcher sought the views of the respondents on how a number of teacher attributes affected the performance of learners with LD. Their responses are presented in Table 4.7.

**Table 4.7: Teachers Attributes affecting Performance of Learners with LD**

Teacher Attribute	VLE		LE		SE		N/A	
	F	%	F	%	f	%	F	%
Teacher experience	50	48	47	45	5	6	2	2
Teachers Inadequacy of syllabus coverage	39	37	36	35	18	17	11	12
Teacher professional qualification	30	29	57	54	14	13	5	4
Teacher ability to adapt the curriculum	28	27	54	51	18	19	4	4

(VLE (Very Large Extent, LE (Large Extent), SE (Small Extent))

Table 4.7 shows that 57 (54%) and 30(29%) respondents were of the opinion that teacher qualification affected the academic performance of learners with LD to a large extent and to a very large extent respectively. In addition, 50 (48%) and 47 (45%) of the respondents indicated that teacher's experience affected the academic performance of learners with LD to a very large extent and to a large extent respectively. This implies that teacher professional qualification and experience were major indicators of academic performance of learners with LD. This study is therefore support by Meese (2002) who stressed that the teachers' professional qualification is an important variable that determines the competency and the ability of the teacher to adapt the curriculum to suit learners with LD.

Moreover, Table 4.7 show that 39 (37%) and 36 (35%) of the respondents were of the opinion that inadequate syllabus coverage affected the academic performance of learners with LD to a very large extent and to a large extent respectively. This study is therefore

support other studies on regular learners which indicate that syllabus coverage especially in good time improves academic performance of learners. For instance, Mureithi, Nyaga Barchok and Oundo (2014) in a study on influence of school factors on academic competence of learners found that teachers who complete the syllabus in time enhance academic performance of the learners. Similarly, Amadolo, Shikuku and Wasike (2012) in a study on factors influencing syllabus coverage in secondary schools mathematics in Kenya concluded that students who cover mathematics syllabus had a better mean score than those who fail to complete the syllabus.

#### **4.4. Curriculum Based Barriers Affecting Learners with LD**

The second objective was to find out the curriculum based factors that affect learners with LD. To start with the researcher enquired from the head teachers and teachers on their opinion whether the curriculum was appropriate for the learners with LD. All the head teachers were of the opinion that the curriculum was not appropriate for the learners with LD. The explanation was that the curriculum was structured the same for all learners without consideration of the learners with LD. The head teachers were therefore of the opinion that the nature of the curriculum contributed to poor performance of learners with LD.

Similarly, majority of the teachers were of the opinion that the curriculum was not appropriate for learners with LD. The teachers' responses are indicated in Table 4

**Table 4.8: Teachers views on the appropriateness of the curriculum for learners with LD**

<b>Appropriateness of the Curriculum for Learners with LD</b>	<b>No of teachers (n=90)</b>	<b>%</b>
The curriculum is not appropriate for learners with LD	83	92
The curriculum is appropriate for learners with LD	7	8

Table 4.8 shows that majority of the teachers indicated that the curriculum was not appropriate for learners with LD. This study therefore supports Ngugi (2002) who observed that the curriculum framework for the regular schools aims at reaching the average learners and that it was not appropriate for learners with LD. This indicates that learners with learning difficulties are not catered for in the curriculum and in turn end up performing poorly in their academics.

The researcher then enquired from the teachers why they perceived that the curriculum was appropriate or not appropriate for learners with LD. The responses from the teachers who stated that the curriculum was not appropriate for learners with LD are presented in Table 4.9.

**Table 4.9: Teachers' responses on why curriculum is not appropriate for learners with LD**

<b>Reason</b>	<b>No of teachers (n=83)</b>	<b>%</b>
The curriculum is too wide for learners with LD	74	89
The curriculum is examinations oriented	63	72
The curriculum does not cater for learners with mixed abilities	59	71
The curriculum is too theoretical (lack enough activities) for learners with LD	55	66

Table 4.9 shows the reasons given by majority of teachers as to why the curriculum was not appropriate for learners with disabilities. Firstly, 74 teachers (89%) stated that the curriculum was too wide for learners with LD. Given that learners with LD are slow in learning they would not grasp all the aspects of the curriculum as teachers rush to complete the syllabus. As UNESCO (2009) notes, where curricula and teaching methods are rigid and there is a lack of appropriate teaching materials – for example, where information is not delivered in the most appropriate mode and teaching materials are not available in alternative formats, learners with LD are at increased risk of exclusion. This could in turn affect the performance of learners with LD.

Secondly, about three quarters of the teachers indicated that the curriculum was too examination oriented. Poor performance by learners with LD could continue discouraging them hence aggravating their performance in future. The findings of the study therefore support another by UNESCO (2009) which found that assessment and

evaluation systems in developing countries are often focused on academic performance rather than individual progress and therefore can be restrictive for learners with LD.

Thirdly, more than two thirds of the teachers stated that the curriculum didn't cater for learners with mixed abilities. This could pose a challenge to learners with LD in inclusive classrooms thereby affecting performance of such learners. This support Lerner (2006) who notes that the regular school curriculum is rigid, more of a routine and does not provide space for adaptation for learners with LD.

Finally, two thirds of the teachers stated that the curriculum was too theoretical in that there were limited practical activities. This could affect the performance of learners with LD since being slow learners they need practical activities to internalize learning. These findings are therefore supported by Anastasiow and Coleman (2006) who argues that learners with LD requires use manipulative or hands on materials, activities that require active participation of the learners and use visual aids that supplement aural and written information.

The researcher then enquired from the teachers on the areas that should be targeted for curriculum adaptation for learners with LD. The teachers' responses are presented in Table 4.10.

**Table 4.10: Teachers views on areas that should be targeted for Curriculum**

<b>Adaptation</b>		
<b>Area targeted for curriculum adaptation</b>	<b>n=90</b>	<b>%</b>
Subject content	42	47
Teaching method	35	39
Teaching resources	10	11

Table 4.8 indicates that almost half of the teachers (47%) were of the view that subject content should be targeted for adaptation. This could be because learners with Learning Disabilities have difficulties in understanding the content in the regular curriculum. As Learner (2006) found, learners with LD experience problems in specific academic skill areas mainly reading, language, writing and mathematics. It is therefore vital that the curriculum content should be adapted to respond to the learners with LD personal abilities, interests and talents. Thirty nine percent of the teachers indicated that teaching methods should be targeted for adaptation. The findings of this study support Wang (2007) who notes that teaching method is an aspect of curriculum that require adaptation in order for the teachers to convey the information to the learners accordingly. In support of this, Bender (2007) noted that learners with LD need different styles of learning and teachers should apply different teaching methods at their disposal hence the needs for adaptation.

Furthermore, the researcher enquired from the teachers and head teachers on the availability of teaching and learning resources. Their responses are presented in Table 4.11.

**Table 4.11: Availability of Teaching and Learning Resources (n=105)**

Resource	Adequate		Inadequate		Not available	
	f	%	F	%	F	%
Chalkboard	87	83	8	17	0	0
Text books	64	68	35	30	6	6
Written words/ Flash cards	39	37	58	55	8	8
Charts and diagrams	36	34	44	42	25	24
3-dimension objects	14	13	22	21	69	65
Aurals	8	8	25	24	71	68
Audio visuals	7	7	15	14	83	79
Projectors	0	0	8	8	97	92

The Table 4.11 shows availability of different categories of teaching and learning resources in the learning environment according to the respondents. The teachers responses on availability and use of teaching and learning resources were as follows: Out of the number of teachers sampled 87 (83%) indicated that chalkboard was adequately available in their schools while 8 (17%) indicated that it was inadequate. No teacher indicated that chalkboard lacked in their school. It can also be noted that chalkboard was the most available resource in the schools.

Concerning text books 64(68%) of the respondents indicated that text books were adequate, 35(30) indicated that they were inadequate while 6(6%) text books were not available. It can be noted that majority of the respondents were of the opinion that text books were available. However, given that learners with LD have problems in reading, teachers must combine text books with other teaching aids to enhance education attainment of such learners.

As for written words 39(37%) respondents indicated that they were adequate, 58(55%) stated that they were inadequate while 8(8%) were of the opinion that written words were not available. It should be noted that learners with LD experience problems in reading and writing. Lerner (2006) emphasized that the use of the chalkboard and flash cards with written words provides enough practice for learners with LD due to their cognitive limitations. This may in turn contribute to better academic performance of learners with LD.

As for charts and diagrams, 36(34%) of the respondents indicated they were adequate, 44(42%) indicated they were inadequate while 25(24%) indicated they were not available. Given that charts and diagrams are mainly prepared by teachers, the results implies that the teachers who were of the view that they were adequate took time to prepare the resources while those who felt that the charts and diagrams were not enough never prepared enough of the resources. On the other hand the teachers who stated that charts and diagrams were not available were not preparing the resources. According to

Schumm & Vaughn, (1992) most teachers want to help low-achieving students, but do not have the time to prepare special materials.

It can be noted that 3 dimension objects, Aural, audio visuals and projectors were the most inadequate teaching and learning resources in the sampled schools. This is a matter of concern given that such resources could go a long way in enhancing teaching and learning of learners with LD. As Oakes and Saunders (2002) opines, shortages of teaching and learning materials has a negative impact on the learners especially those with LD. Inadequate teacher aid time and curriculum support in the form of modified materials were highlighted by a number of researchers (Avrimidis et al., 2000; Westwood and Graham 2003) as factors affecting the performance of learners with LD. Lerner (2006) observed that in teaching learners with LD, the resources would form; a focal point and attract attention ,arouse interest and promote a desire to learn, supplement and help to explain words and processes, stimulate learners imagination to learn and help consolidate what has been learnt and save time.

#### **4.5. Infrastructural Based Barriers Affecting Learners with LD**

The third objective was to find out the school infrastructural factors that affect performance of learners with LD in regular schools in Eastern Zone of Nakuru Municipality. To start with the head teachers and teachers were asked on the availability of resources such as classrooms, toilets, drinking water and furniture such as desks. Their responses are presented in table 4.12.

**Table 4.12: Head teachers and teachers responses on availability of school infrastructural materials (n= 105)**

Resource	Adequate		Inadequate		Not available	
	<i>F</i>	%	<i>f</i>	%	<i>F</i>	%
Toilets	36	34	69	66	0	0
Furniture (desks, tables and chairs)	32	30	73	70	0	0
Drinking water	27	26	43	41	35	33
Classrooms	17	16	88	84	0	0

Table 4.12 shows that majority of the respondents (84%) indicated that classrooms were inadequate while 16% of the respondents were of the view that the classrooms were adequate. This implies that it was only in two schools out of fifteen where classrooms were adequate. Therefore in majority of the schools learners were congested. The researcher also found through observation that the classrooms were not enough in 11 schools. This is because the classes were overcrowded with some classes having more than fifty learners. This could hence affect the academic performance of the learners with LD because in large classes it could be difficult for teachers to cater for individual needs of the learners. This study is therefore supports Lewin (2008) who found out that in Kenya, there are large number of pupils per class hence referring to them as ‘unteachable classes’. He added that large classes also cause discomfort and air quality and ambience to learning. This ultimately contributes to poor academic performance of learners. Furthermore, a study by World Bank (2004) in Ghana found out that increasing the

availability and quality of classrooms and instructional materials directly contributes to both educational attainment and achievement.

Table 4.12 also shows that over two thirds of the respondents indicated that toilets were inadequate. This implies that students queued for long when they visit the toilets. This could therefore lead to discomfort and time wastage and eventually could contribute to poor academic performance of learners those with LD included. This study is therefore support Njuguna (2011) in Makuyu division who found that there were inadequate latrines in most schools. He concluded that inadequate latrines pose a problem in the teaching and learning process. This is because learners would queue desperately in the morning and at break time to use the facilities resulting to poor preparation for the incoming lesson as well as loss of instructional time.

Table 4.12 also shows that only 26% of the respondents were of the opinion that drinking water was adequate in their schools. Another 41% of respondents perceived that drinking water was inadequate. A third of the respondents indicated that drinking water was not available in their schools. Hence this study found out that drinking water was a challenge in most of the schools. When asked through interviews whether availability of drinking water influence academic performance of learners, majority of head teachers (73%) answered in affirmation. This study support Waga (2013) in a study on influence of water, sanitation and hygiene on pupils' performance in Maseno division who concluded that availability of safe drinking water positively influenced academic performance of pupils in rural primary schools. Lack of adequate drinking water would therefore

contribute to poor academic performance of learners with LD alongside the regular learners in inclusive schools.

Finally table 4.12 shows that in more than two thirds of the schools furniture (desks, table and chairs) were inadequate. Through observation, the researcher also found that the furniture was inadequate as most pupils were congested. The researcher also observed that some desks were poorly maintained. This study therefore supports Word Bank (2006) in a study in a number of African primary schools which found that the schools lacked an adequate supply of furniture. Lewin (2008) also found that expansion of primary education required the purchase of furniture, equipment, and learning materials; and the provision of supporting infrastructure.

Inadequate and poorly maintained furniture could adversely affect the learners' listening, reading and writing skills. Given that learners with LD require special attention for them to learn, inadequate furniture would deter their concentration which could contribute to poor academic performance. A study by Njuguna (2011) also found that inadequate and poorly maintained desks in primary schools could contribute to poor performance of learners since they had to be on high alert to avoid falling down and embarrassment hence low concentration in the learning process.

## CHAPTER FIVE

### SUMMARY, CONCLUSION, AND RECOMMENDATIONS

#### 5.0. Introduction

The purpose of the study was to investigate the school based factors affecting academic performance of learners with learning disabilities in regular schools in eastern zone of Nakuru Municipality in Nakuru County, Kenya. This chapter contains a summary of the findings conclusions and recommendations based on the findings. Further research areas are also suggested.

The objectives of the study were;

- i. To find out learners' based barriers that affect academic performance of learners with LD in regular schools in E Eastern Zone of Nakuru Municipality.
- ii. To establish the teachers' based barriers that affect performance of Learners with LD in regular schools in Eastern Zone of Nakuru Municipality.
- iii. To find out the curriculum based barriers that affect learners with LD in regular schools in Eastern Zone of Nakuru Municipality
- iv. To find out the school infrastructural barriers that affect performance of pupils with LD in regular schools in Eastern Zone of Nakuru Municipality

The study adopted a descriptive survey design. Fifteen primary schools out of 23 primary schools (65%) in Eastern Zone of Nakuru Municipality participated in the study. The respondents comprised of the 15 head teachers of the sampled schools and six teachers

from each schools. Two written tests were also administered to 80 class three pupils to help in identifying learners with LD.

### **5.1. Summary of the Findings**

#### **Learner Based Barriers That Influence the Performance of Learners with LD**

The study found that the main categories of learners with LD included; difficulties in simple arithmetic, difficulties in oral communication, difficulty in reading, difficulties in number concept, and listening skills problems. These categories of learning difficulties were determined through a testing tool (written tests), observation and from teachers reports.

#### **Teachers' Based Barriers That Influence the Performance of Learners with LD**

This research objective was to establish the teachers' based factors that influence the performance of learners with LD. The study found out that majority (over two thirds) of the teachers had not attended training courses for handling learners with LD. Furthermore only a negligible number of teachers had attended in-service courses for handling learners with LD. From the perceptions of the respondents, the study found that lack of training of teachers on handling learners with LD contributed to their low academic performance at a great extent. The study also found that majority of teachers used direct instructions in the inclusive classrooms with rare application of special methods. This too contributed to poor academic performance of the learners.

Concerning attitudes of teachers on inclusion of learners with LD, it was found that majority of the respondents supported the inclusion. The major reason given for inclusion

of learners with LD is that they would not feel discriminated against thereby motivating them to improve their academic performance. The study also found the following teacher attributes affected academic performance of learners with LD; professional qualification, teachers' experience, in-adequate syllabus coverage and teachers' ability to adapt the curriculum

### **Curriculum Based Barriers Affecting Learners with LD**

The third objective was to establish the curriculum based factors that affect the performance of learners with LD. Through the opinions of the respondents, it was found that the curriculum was not appropriate for learners with LD. The reasons given as to why the curriculum was not appropriate were; it was too wide for learners with LD, it didn't cater for academic needs of learners with mixed abilities, it was too theoretical in that there were limited practical activities and it was too examinations oriented. All these limitations of the curriculum were found to affect the academic performance of learners with LD negatively. The study also identified areas that needed to be targeted for curriculum adaptation. These included; subject content, teaching method and teaching resources. Adaptation of the curriculum could help improve the performance of learners with LD.

Concerning availability of teaching and learning resources, the study found that chalk boards, written words and text books were mostly adequate in majority of the schools. It was also found that charts and diagrams were adequate in almost half of the sampled schools. Furthermore it was found that 3 dimension objects, aural, audio visuals and

projectors were the most inadequate teaching and learning resources in the sampled schools. Inadequacy of these teaching and learning resources was found to affect the academic performance of learners with LD negatively.

### **Infrastructural Based Barriers Affecting Learners with LD**

The fourth objective was to find out the school infrastructural factors that affect performance of learners with LD. To start with, the study found that classrooms were inadequate. This meant there was congestion in classes leading to a high students/ teacher ratio. This was found to affect performance of learners with LD since their individual needs could not be well catered for in large classes. Secondly toilets were inadequate hence wastage of time as learners queue. This could affect academic performance of learners those with LD included. Thirdly, piped drinking water was inadequate and even not available at all in some schools. This again contributed to poor academic performance of learners with LD. Finally, furniture such as desks and chairs were not adequate in majority of the schools. This led to congestion of learners which interfered with concentration in classroom hence affecting academic performance of learners with LD. In some schools, furniture was found in deplorable conditions implying that learners would remain careful not to fall. This again could affect concentration in learning leading to poor academic performance.

### **5.2. Conclusion**

Lack of training of teachers in special needs to handle students with LD negatively affected the performance of learners with LD. Failure to apply special teaching methods by teachers affected performance of learners with LD negatively. Furthermore, Teachers'

attributes such as qualification, experience and adequate syllabus affected performance of learners with LD. For example, when teachers had the right qualification and experience learners with LD could perform better. Concerning the curriculum, it was not appropriate for learners with LD and this contributed to poor performance of learners with LD. For instance the curriculum was too wide for learners with LD, it was too theoretical and it was too much examinations oriented. Therefore there was need for Curriculum adaptation to enhance academic performance of learners with LD. Additionally, Lack of teaching aids such as aurals, audio-visuals and projectors contributed to poor performance of learners with LD. Finally concerning school infrastructure, inadequacy of classrooms, drinking water, toilets, and furniture affected the performance of learners with LD negatively.

### **5.3. Recommendations**

Based on the findings, the researcher made the following recommendations;

- i. All teachers in regular primary school should be trained in Special Needs education to be handle learners with LD. The Ministry of Education should therefore organize for pre-service and in-service training courses on handling learners with LD. Training of the teachers in special needs would also enable them to adapt the regular school curriculum to enhance learning of learners with LD. This could subsequently contribute to improved academic performance of such learners with LD. Training of the Teachers could also enable them apply special teaching methods to enhance the learning of learners with LD hence improving their academic performance.

- ii. The curriculum should be reviewed to make it more practical and less examination oriented. The MoEST should therefore carry out research to establish areas of curriculum overload with a view of narrowing it to suit learners with LD. The Ministry should also find other methods of gauging performance of learners with LD other than examinations. For instance recognition and nurturing of talents which can enable learners with LD to flourish in co-curricular activities such as sports and games. Teaching and learning resources should also be adapted to enhance learning of learners with LD in order to improve their academic performance. The teachers should therefore prepare teaching aids which could make learning practical and meaningful.
- iii. The government should increase budgetary allocation for the Free Primary Education (FPE) in order to build more classrooms in schools, acquire enough furniture, avail safe drinking water and build enough latrines. The schools' Board of Managements (BoM) should also solicit for funds through the Constituency Development Fund (CDF) to enhance the infrastructure. Finally, sponsors such as Non-governmental Organizations (NGOs) and Community Based organizations (CBOs) should help the schools in building and maintaining infrastructure.

#### **5.4 Suggestion for Further Research**

The researcher recommended the following for further research,

- i. This study was carried in eastern zone of Nakuru municipality whereby majority of schools were in urban area. There is need to carry out a similar study in rural and remote areas to compare the results.
- ii. Another study should be carried out to investigate the relevance of primary teacher training syllabus in relation to Special Needs Education particularly handling learners with LD.

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## APPENDIX I

### INTERVIEW SCHEDULE FOR HEADTEACHERS

*This study seeks to investigate teacher factors, curriculum factors and infrastructural factors that affect learners with learning disabilities (LD). Your school is among the few that have been selected for the study and your honest responses to this questionnaire will make it a success. Information given will be treated with confidentiality.*

1. Type of school heading:
2. Level of professional qualification
3. Length of service as a teacher in years
4. Length of service as a head teacher in years
5. Have you ever been inducted into the aspect of learners with Learning Disabilities?
6. If yes above, how has it influenced performance of learners with Learning Disabilities in your school?
7. What extent did you study the following areas?
  - Pedagogy/teaching reading
  - Psychology
  - Remedial reading
  - Special education
8. Have you undergone training in special needs education?
9. Have you attended in-service training in Special need education?
10. What is your opinion on inclusion of learners with Learning Disabilities and the regular ones?
11. How many students have learning disabilities
12. How many students need remedial teaching

13. How often do teachers organize students in the following

- a) Teach the whole-class
- b) Create same-ability groups
- c) Create mixed-ability groups
- d) Use individualized teaching
- e) Students work independently

14. In your opinion how do you think the following teacher attributes affect the performance of learners with disabilities?

- Teachers attitude
- Teachers professional
- Teachers experience
- Inadequate syllabus coverage
- Classroom organization
- Teachers' ability to adapt curriculum
- Teachers in-service training

15. In your views which of the following areas should be targeted for the curriculum adaptation for learners with Learning Disabilities adaptation?

- Subjects Content
- Teaching Method
- Teaching Resources
- Classroom Arrangement
- All the areas of the curriculum

In your opinion how do you think curriculum adaptation affect the performance of learners with LD? (please check on one)

Very large extent

Large extent

Small extent

Not applicable

16. Which of the following methods do teachers use to teach learners with LD?

Task analysis

Peer tutoring

Individualized Educational Plan (IEP)

Direct instruction

Clinical

None

Psychotherapeutic

Cognitive

17. In your opinion, how does lack of use of special teaching method affect the performance of learners with Learning Disabilities?

Very large extent

Large extent

Small extent

Not applicable

18. In your view, please indicate whether the following teaching and learning resources are adequate, inadequate or unavailable in your school?

Chalkboard

Written words

Text books

Charts

Diagrams

Flash cards

3-Dimensional object

Aurals

Audio visuals

Projectors

19. In your opinion, how does availability and utilization of teaching and learning resources affect the performance of learners with Learning Disabilities?

Very large extent

Large extent

Small extent

Not applicable

20. In your opinion indicate whether the following resources are adequate, inadequate or unavailable in your school

Classrooms

Toilets

Drinking water

Furniture (desks and tables)

Any other \_\_\_\_\_

21. In your opinion explain how presence or absence of the above resource affects performance of learners with Learning disabilities.

22. In your opinion, is the curriculum adapted to suit the learners with disabilities?

23. In your opinion which of the following areas of curriculum needs adaptation for learners with special needs Subjects Content, Teaching Method, Teaching Resources, Classroom Arrangement or All the areas of the curriculum. Please explain.

24. What do you think is the influence of curriculum adaptation on performance of learners with learning Disabilities?

*Thank you for your co-operation*

## APPENDIX II

### QUESTIONNAIRES FOR TEACHERS

*This study seeks to investigate teacher factors, curriculum factors and infrastructural factors that affect learners with learning disabilities (LD). Your school is among the few that have been selected for the study and your honest responses to this questionnaire will make it a success. Information given will be treated with confidentiality.*

1. Gender: Male ( ) Female ( )
2. Which subjects do you teach?.....
3. Please indicate your highest level of education\_\_\_\_\_
4. **What extent did you study the following areas?**

(Tick one box in each line)

	<b>Not at all</b>	<b>Overview</b>	<b>introductions to topic</b>	<b>It was an area of Emphasis</b>
Pedagogy/teaching reading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Psychology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Remedial reading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Special education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Have you undergone training in special needs education?

Yes  No

6. Have you attended in-service training in Special need education?

YES  NO

7. What is your opinion on inclusion of learners with LD and the regular ones?

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8. How many students have learning disabilities-----

9. How many students need remedial teaching? -----

10. When you have reading instruction and/or do reading activities, how often do you organize students in the following ways?

*(Tick one box in each line)*

	Always	often	sometimes	never
a) I teach the whole-class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) I create same-ability groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) I create mixed-ability groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) I use individualized teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Students work independently	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. In your opinion how do you think the following teacher attributes affect the performance of learners with disabilities?

*(Tick one box in each line)*

( KEY: VLE=very large extent, LE= large extent, Small Extent, No Extent)

	NE	VLE	LE	SE
Teachers attitude	( )	( )	( )	( )
Teachers professional	( )	( )	( )	( )
Teachers experience	( )	( )	( )	( )
Inadequate syllabus coverage	( )	( )	( )	( )
Classroom organization	( )	( )	( )	( )
Teachers' ability to adapt curriculum	( )	( )	( )	( )
Teachers in-service training	( )	( )	( )	( )

**12.** In your opinion, do you think that the current is appropriate for learners with LD

Yes ( ) No ( )

Please explain your answer.

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**13.** Do you think that the nature of the current curriculum (e.g. subject content affect the performance of learners with Learning disabilities?

Yes ( ) No ( )

Please explain your answer

---



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**14. In your views which of the following areas should be targeted for the curriculum adaptation for learners with LD adaptation?**

- |                                 |     |
|---------------------------------|-----|
| Subjects Content                | ( ) |
| Teaching Method                 | ( ) |
| Teaching Resources              | ( ) |
| Classroom Arrangement           | ( ) |
| All the areas of the curriculum | ( ) |

**15. In your opinion how do you think curriculum adaptation affect the performance of learners with LD? (please check on one)**

- |                   |     |
|-------------------|-----|
| Very large extent | ( ) |
| Large extent      | ( ) |
| Small extent      | ( ) |
| Not applicable    | ( ) |

**16. Which of the following methods do you use to teach learners with LD?**

- |                    |     |
|--------------------|-----|
| Task analysis      | ( ) |
| Peer tutoring      | ( ) |
| I.E.P              | ( ) |
| Direct instruction | ( ) |
| Clinical           | ( ) |
| None               | ( ) |
| Psychotherapeutic  | ( ) |
| Cognitive          | ( ) |

**17. In your opinion, how does lack of use of special teaching method affect the performance of learners with LD?**

- |                   |     |
|-------------------|-----|
| Very large extent | ( ) |
| Large extent      | ( ) |
| Small extent      | ( ) |
| Not applicable    | ( ) |

**18. In your view, please indicate whether the following teaching and learning resources are adequate, inadequate or unavailable in your school?**

*(Tick one option in each line)*

	Adequate	inadequate	unavailable
Chalkboard	( )	( )	( )
Written words	( )	( )	( )
Text books	( )	( )	( )
Charts	( )	( )	( )
Diagrams	( )	( )	( )
Flash cards	( )	( )	( )
3-Dimensional object	( )	( )	( )
Aurals	( )	( )	( )
Audio visuals	( )	( )	( )
Projectors	( )	( )	( )

**19. In your opinion, how does availability and utilization of teaching and learning resources affect the performance of learners with LD?**

Very large extent ( )

Large extent ( )

Small extent ( )

Not applicable ( )

**20. In your opinion indicate whether the following resources are adequate, inadequate or unavailable in your school**

*(Tick one option in each line)*

	Adequate	inadequate	unavailable
Classrooms	( )	( )	( )
Toilets	( )	( )	( )
Drinking water	( )	( )	( )
Furniture (desks and tables)	( )	( )	( )

***Thank you for your co-operation***

**APPENDIX III**  
**OBSERVATION SCHEDULE**

a) Are there adequate buildings and facilities in the school?

Buildings	Adequate	Inadequate	Not available
i. Classrooms			
ii. Toilets			
iii. Drinking water points			
iv. Play fields etc			
v. Staff rooms			
vi. Teachers offices			
vii. Desks			
iii. Chairs			
ix. Chalkboards			

b) What is the status of building in the school?

Status	Good	Fair	Poor
(i) Age			
(ii) Maintenance			
(iii) Aeration			
(iv) Safety			

**APPENDIX IV: LEARNERS TESTS FOR IDENTIFICATION OF LEARNERS**

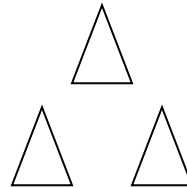
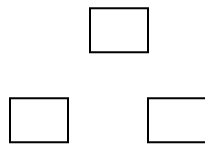
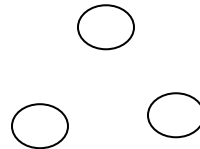
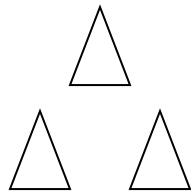
**WITH LD**

**1. Mathematics test**

1. Fill in the missing numbers

	66		64			61	60
--	----	--	----	--	--	----	----

2. Match the following



3. Add ;

i.  $3+5=$

ii.  $163$   
 $+$

754

—

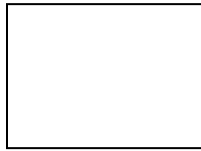
## 4. Subtract

$$\begin{array}{r} \text{i.} \quad 580 \\ \quad -246 \\ \hline \end{array}$$

$$\begin{array}{r} \text{ii.} \quad 703 \\ \quad - \\ \hline \quad 60 \\ \hline \end{array}$$

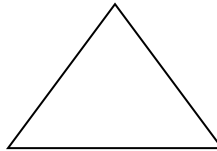
## 5. Name the shapes below

a)



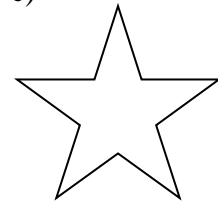
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b)



-----

c)



-----

6. John bought a packet of milk at 45 shillings and a loaf of bread at 50 shillings. How much did she use in total?

## 2. English test

1. Fill in the missing letters

- a) T\_ bl\_  
 b) M\_ \_ze  
 c) \_\_hool  
 d) P\_nc\_l

**2. Dictation**

(Dictation words to be read by the teacher)

**3. Colour the boxes that have the letters that are alike**

Bb	Db	Kh	Zz	Tt	Bp
Mh	Ij	Cc	Gy	ft	Gg

**4. Circle the odd one out**

- i. Bull, bow, pull, full
- ii. Plum, peep, sleep, keep

**5. Write three sentences about your friend**

- i. \_\_\_\_\_
- ii. \_\_\_\_\_
- iii. \_\_\_\_\_

**Thank you for answering the questions**

## APPENDIX V: RESEARCH AUTHORIZATION LETTER



### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,  
2241349, 310571, 2219420  
Fax: +254-20-318245, 318249  
Email: secretary@nacosti.go.ke  
Website: www.nacosti.go.ke  
When replying please quote

9<sup>th</sup> Floor, Utalii House  
Uhuru Highway  
P.O. Box 30623-00100  
NAIROBI-KENYA

Ref: No.

Date:

**8<sup>th</sup> April, 2015**

**NACOSTI/P/15/5090/5612**

Beatrice Kwamboka Mauya  
Kenyatta University  
P.O. Box 43844-00100  
**NAIROBI.**

#### **RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on "*School based barriers affecting performance of learners with learning disabilities in regular schools in eastern zone of Nakuru Municipality In Nakuru County, Kenya*" I am pleased to inform you that you have been authorized to undertake research in **Nakuru County** for a period ending **31<sup>st</sup> December, 2015.**

You are advised to report to **the County Commissioner and the County Director of Education, Nakuru County** before embarking on the research project.

On completion of the research, you are required to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

  
**DR. S. K. LANGAT, OGW**  
**FOR: DIRECTOR GENERAL/CEO**

Copy to:

The County Commissioner  
Nakuru County.

The County Director of Education  
Nakuru County.

APPENDIX VI: RESEARCH PERMIT

THIS IS TO CERTIFY THAT: MS. BEATRICE KWAMBOKA MAUYA of KENYATTA UNIVERSITY, 14950-20110 Nakuru, has been permitted to conduct research in Nakuru County

Permit No : NACOSTI/P/15/5090/5612 Date Of Issue : 8th April, 2015 Fee Received :Ksh. 1000

on the topic: SCHOOL BASED BARRIERS AFFECTING PERFORMANCE OF LEARNERS WITH LEARNING DISABILITIES IN REGULAR SCHOOLS IN EASTERN ZONE OF NAKURU MUNICIPALITY IN NAKURU COUNTY, KENYA

for the period ending: 31st December, 2015



Applicant's Signature

Director General National Commission for Science, Technology & Innovation

CONDITIONS

- 1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit.
2. Government Officers will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two(2) hard copies and one(1) soft copy of your final report.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice.



REPUBLIC OF KENYA



National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No. A 4895

CONDITIONS: see back page