

**EFFECTIVENESS OF TEACHING METHODS FOR DAILY-LIVING  
SKILLS TO LEARNERS WITH MENTAL RETARDATION IN  
SPECIAL UNITS IN PRIMARY SCHOOLS,  
KASARANI SUB-COUNTY, KENYA**

**BY**

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**DECLARATION**

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

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**DEDICATION**

This work was dedicated to my husband Jacob and our children Nelly, Pamela, Nelson and Uniter.

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## ABBREVIATIONS AND ACRONYMS

<b>AAMR:</b>	American Association on Mental Retardation
<b>AIDS:</b>	Acquired Immunodeficiency Syndrome
<b>CBD:</b>	Central Business District
<b>DLS:</b>	Daily Living Skills
<b>EFA:</b>	Education for All
<b>EMIS</b>	Educational Management Information Systems
<b>GoK:</b>	Government of Kenya
<b>HIV:</b>	Human Immuno-deficiency Virus
<b>IEP:</b>	Individualized Education Programme
<b>IQ:</b>	Intelligence Quotient
<b>KEMU</b>	Kenya Methodist University
<b>KISE:</b>	Kenya Institute of Special Education
<b>KSMH:</b>	Kenya Society for the Mentally Handicapped
<b>MoE:</b>	Ministry of Education
<b>MoHEST:</b>	Ministry of Higher Education, Science and Technology
<b>MoEST:</b>	Ministry of Education, Science and Technology
<b>MR:</b>	Mental Retardation
<b>PDAs:</b>	Personal digital Assistants
<b>SNE:</b>	Special Needs Education
<b>TSC</b>	Teachers Service Commission
<b>UNA:</b>	United Nations Agencies
<b>UNESCO:</b>	United Nations Educational Scientific and Cultural Organization
<b>UNICEF:</b>	United Nations Children Education Fund

## ABSTRACT

The aim of this study was to establish the effectiveness of teaching methods for acquisition of daily living skills by learners with mental retardation. The study adopted a descriptive survey design. Dependent variable for this study was acquisition of daily-living skills while independent variables were methods of teaching, how teachers applied the methods; challenges encountered and teaching/learning materials used by teachers. The study used purposive sampling to select the district, special units, learners and teachers. The target population in this study was eighty four respondents. The sample for the study was the same as the target population, as this number was manageable within the time available. The study used semi-structured questionnaires for teachers and head-teachers, and observation checklists for learners to obtain the data. Spearman order correlation coefficient was used. The reliability level was 0.6 for questionnaires and 0.5 for observation checklist. The study was carried out in special units for learners with mental retardation in public primary schools in Kasarani sub-county, Kenya. The data was analyzed using qualitative and quantitative methods. It was then presented in narrative passages and tables using frequencies and percentages. The findings of the study showed that learners with MR were not taught DLS effectively because teachers did not use appropriate teaching methods, strategies, or correct teaching/learning materials. Seventy-eight percent (78%) of teachers in the units for learners with MR were not trained to teach such learners. Only 22% of the teachers were trained in the area of MR. The findings show that forty-eight (80%) of learners did not get sufficient DLS as the methods and teaching/learning materials used were neither appropriate nor relevant. Consequently, the study concluded that learners were not taught DLS appropriately for acquisition of independent living. The study recommends that government should develop cost-effective training for teachers in the area of mental retardation to curb the problem of understaffing and ineffective teaching. It also recommends that schools with special units need to be headed by teachers who are specialists in the area of mental retardation because they can understand the needs, abilities and interests of learners with MR and provide appropriate learning environment, and also offer necessary support to the teachers in the units.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the Study

Learners with MR are found throughout the world. According to Friend (2008), quoting US Department of Education, (2004), in America, during 2002-2003 school years, 0.88% of all children aged 6-21 (580,375 students) received special education because they were identified as having mental retardation.

The search for methods of educating learners with mental retardation began more than 200 years ago. According to Heward, (2006, 152), Jean Mark Itard showed that “intensive systematic intervention” could produce significant gains in a learner thought to be incapable of learning. Itard’s application of intensive systematic approach to ‘Victor’ who was believed to be mentally retarded, signaled that individuals with mental retardation (MR) are capable of learning, however limited it may be.

In America, the PL 94-142 of 1975, which later (i.e., 1990), changed to Individuals with Disabilities Education Act (IDEA), supported the education of children with disabilities. The court rulings in North Carolina in 1969 played a major role in the education of children with mental retardation. It stated that:

*It is unconstitutional and invalid ...to operate the public school system in a discriminatory manner as against the mentally retarded children and to allocate funds to the disadvantage of the mentally retarded child. Often a mentally retarded child develops fair skills and abilities and becomes a useful citizen of the state but in order to do this, the mentally retarded child must have his/her chance (Kaur, 2005,pg 33)*

This formed the basis for search of methods to teach the daily living skills (DLS). Other global declarations which impacted much on education of learners with MR were the declaration on human rights of 1948 and also that on child rights of 1989.

Learners with MR are classified as mild, moderate, severe and profound. They manifest cognitive deficits in areas of memory, generalization, metacognition, motivation and language (Ndurumo, 1993). In adaptive behavior, they manifest deficits in social skills, self-care, home living, leisure, self-direction, functional academics, use of community facilities and work. These are the (DLS) necessary for independent living. Okoko (1998) observes that every good curriculum for learners with MR should contain DLS. She asserts that trained teachers are able to identify and use correct teaching methods to teach physical education. DLS, just like physical education, are manual skills; therefore, learners with MR can acquire them if teaching methods are applied effectively. These skills must be developed in whatever the setting, whether home or school, for maximum independence. Development of such skills may assist learners with MR to increase autonomy, co-dependence and nurturing problem-solving in the house, school and in the whole community at large (Lombardi, 2011).

Most of the African countries are signatories to Jomtien Declaration on Education for All (EFA), in 1990 (Government of Kenya, 2005). This made member countries to be responsive in implementing EFA goals to all learners including those with MR. Some of the African countries which started Special Needs Education (SNE) institutions were Uganda in 1982, Zambia in 1991 and college of SNE in 2002, (Khalifan, 2002).

Education for learners with MR was aimed at helping them acquire DLS for independent living.

The Kenya government is committed to the provision of equal access to quality and relevant education and training to all learners, including those with MR (Government of Kenya, 2005). To achieve this, the government established the Kenya Institute of Special Education (KISE) in 1986 to meet the high demand of SNE teachers, (National Action Plan, 2003-2015). Other institutions which train SNE teachers are Kenyatta, Maseno, Moi and Kenya Methodist universities at bachelor and postgraduate levels. The government has also established special schools and units for learners with MR to meet the demand of the large number of learners in the country, most of who are not in the learning institutions (National Action Plan, 2003-2015).

In regard to education, higher functioning (mild) learners with MR may need directions repeated, or a peer to partner with. These students might need to attend a resource room for a portion of the day to receive extra academic help and possibly receive Occupational Therapy (OT) to work on adaptive skills. Learners with mild MR may also benefit from study skills or peer tutoring among other methods (Mortweet, Cheryl, Walker, Dawson, Delquadn, Reddy, Greenwood, Hamilton, & Ledford, 1999). Kaur (2005) in his studies clearly indicated that learners with MR can progressively acquire DLS once exposed to conducive environment, trained personnel and effective use of teaching methods. Those studies clearly showed that learners with MR could progressively acquire skills of daily living once exposed to conducive environment and appropriate teaching methods.

## **1.2 Statement of the Problem**

Learners with MR are found throughout the world. Most of learners with mild MR in Kasarani sub-county were in the units in primary schools but majority still lacked DLS for independent living. This was exhibited by the way they were discriminated, segregated, rejected and abused by the society (Friend, 2008). They were, therefore, not well integrated in their communities. Their parents/guardians spent time caring for these children, which limited their contribution towards national development. The learners in the units were mildly and moderately retarded. They were, therefore, classified as educable and trainable. If teaching methods were employed effectively by teachers, learners would have acquired DLS the way they ought to. In addition to their ability to identify mistreatment and abuse and reporting to the relevant authority, acquisition of DLS would also enable them live independently. A study by Cannella-Malone, Fleming, Yi-Chung, Geoffrey, Abby and Angela (2011) on teaching DLS to learners with MR compared effects of video prompting and video modeling in teaching learners to wash dishes and laundry work. Their findings were that video prompting was more effective than video modeling. In another study carried out in Nairobi by Okoko, (1998) indicates that learners with MR can acquire skills of physical education when teaching methods are used effectively. This implied that if teaching methods were used effectively, learners with MR would acquire DLS. The above two studies did not focus on DLS for independent living in Kasarani sub-county.

The Kenya Society for the Mentally Handicapped (KSMH) reports that 48% of children with MR experience ten (10) or more abusive incidents each year, yet most



of these cases go unnoticed (KSMH, 2010). The major reason being that learners with MR have not acquired DLS the way they are supposed to. This could indicate that the effectiveness of the methods used to teach DLS even in Kasarani sub-county were questionable. Further, according to Kenya National Census (2009), 136,093 persons were identified as having MR, of which 1,587 were found in Kasarani sub-county. This large number has not acquired DLS, which meant that they wholly depended on their caregivers. Their acquisition of DLS would only be possible through effective teaching methods which would enable them to be independent, thus relieve their caregivers to participate in national development activities (Ministry of Education, 2009). Therefore the major concern in this study was to establish the effectiveness of teaching methods for acquisition of DLS to learners with MR in special units in Kasarani sub-county, Kenya.

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

The purpose of this study was to establish the effectiveness of teaching methods on acquisition of DLS to learners with mild MR in special units in primary schools in Kasarani District, Nairobi County, Kenya. The study would also establish how teachers employed teaching methods to teach DLS, the challenges they experienced and also determined the teaching/learning materials on the acquisition of DLS.

### **1.4 Research Objectives**

The specific objectives of this study were to:

- i. Identify the teaching methods employed to teach DLS to learners with MR.
- ii. Establish how teachers employed the teaching methods when teaching DLS.

- iii. Determine the challenges teachers experienced while teaching DLS to learners with MR.
- iv. Explore teaching/learning materials that enhance teaching methods for DLS.

### **1.5 Research Questions**

The study sought to answer the following research questions.

1. What teaching methods did teachers employ in special units to teach DLS to learners with mild MR?
2. How did teachers implement the DLS to learners with MR?
3. What challenges did teachers experience when using teaching methods to teach DLS?
4. What teaching/learning materials enhance teaching methods for DLS?

### **1.6 Significance of the Study**

The study would provide information to teachers on the effectiveness of teaching methods for acquisition of DLS to learners with MR. It would also provide information on how they should implement DLS, challenges experienced and the teaching/learning materials used to implement DLS. The study would also be used by curriculum developers, policy-makers and other stakeholders in the teaching profession to improve the implementation and acquisition of DLS by learners with mild MR to enhance their eventual independent living.

### **1.7 Scope of the Study**

The location of study was Kasarani district. The choice of Kasarani was based on the fact that it had the highest number of persons with MR in Nairobi County. The study would be confined to teachers in special units in primary schools. The teachers involved in the study were the ones handling the learners with MR. Those teachers on leave were not considered for the study. The study would also be limited to learners who were in special units because they were mildly (educable) and moderately (trainable) retarded and could learn DLS if they were taught properly. Out of the seven special units for learners with MR in public primary schools in the area of study, six units were used for actual study.

### **1.8 Limitations**

The study was faced with financial constraints. Activities such as travelling, typing, printing and binding of the documents required a large sum of money which was not available. Another problem was getting a response from all the pupils on the skills they had acquired because some learners were not able to perform the skills and to communicate intelligibly.

### **1.9 Assumptions of the Study**

The study was based on the following assumptions that:

- i) Teachers in the units in primary schools were not trained in the area of MR.
- ii) Teachers in the units were not aware of the teaching methods for DLS.

- iii) Teachers were not able to counter the challenges experienced when implementing the methods for DLS to learners with MR.
- iv) Concrete learning materials were available for teaching DLS.

### **1.10 Theoretical Framework**

This study is guided by two theories. These are: Social learning by Bandura (1977) and by Skinner (1904-1990), a proponent of operant conditioning. These two theories relate to acquisition of DLS by learners with MR. According to Skinner, an organism is in the process of 'operating' on the environment. During this 'operating', the organism encounters a special kind of stimulus, called a reinforcing stimulus, or a reinforcer. This special stimulus has the effect of increasing the operant (the behavior just before the reinforcer). That is, the behavior is followed by a consequence, and the nature of the consequence modifies the organism's tendency to repeat the behavior in the future. If the behavior is followed by a rewarding or positive consequence, the behavior tends to be strengthened.

In teaching learners with MR, teachers can apply this theory in classroom situation. Learners can eagerly learn DLS simply because they expect to be rewarded. In classroom situation, teachers can use tangibles to reward learners. Shaping is a behavior modification which involves reinforcing successive approximations to a behavior that is beneficial to them. In training a skill using task analysis for instance, shaping can be applied after every step and the learner with MR may learn the skills fast. If teachers applied shaping and schedules of reinforcement to their learners

depending on their individual needs, they would learn skills of daily living and would also tend to repeat the rewarded behavior, hence acquire DLS.

The study was also based on Bandura's 'Social Learning Theory', of 1977, which states that "human beings are influenced by their environment". This meant that learning involved both external reinforcement and internal cognitive explanations of learning. These account for how we learn from other people. Human beings are social animals. Through interaction and observation, enormous amounts of information and complex skills in the environment are learnt. In social learning theory, there is immediate association of the model behavior through visual coding of the model (Kirk & Gallagher, 1989).

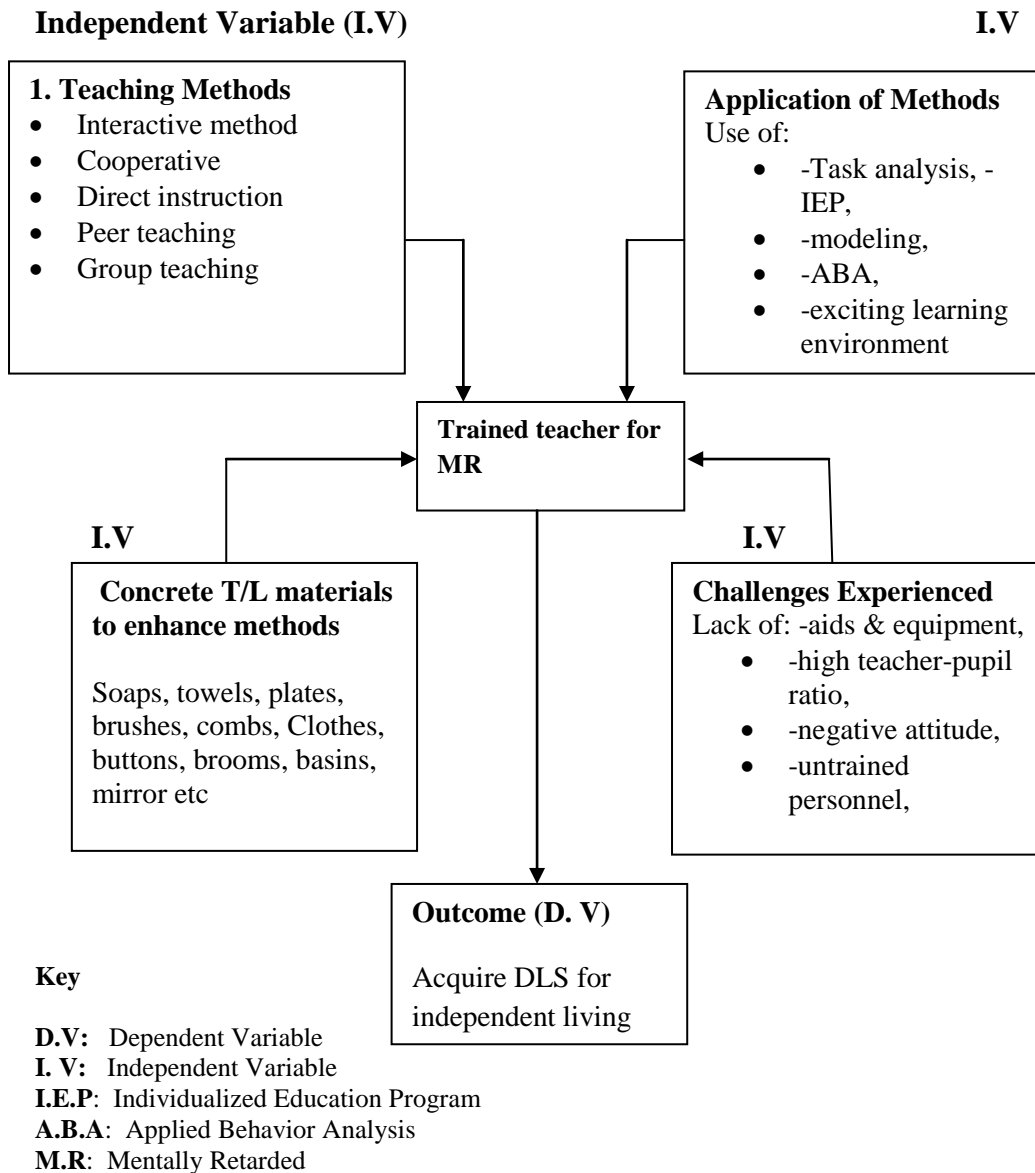
Social learning theory supports the model principle which states that 'learners are likely to pay more attention to models with high status, high competence and expertise attributes which teachers are often thought to have. Social learning theory involves a model that is attractive, of high status and admired by the observer. A teacher models the desired behaviour such as eating, table manners, socializing, and assists his/her learners to imitate. The theory encompasses attention (attention paid to the model), retention (remembering what you paid attention to), reproduction (reproducing the image, including physical capabilities) and motivation (having a good reason to imitate-promised incentives and vicarious learning) (Kirk & Gallagher, 1989).

Special education teachers are supposed to create a conducive environment for their learners to benefit from social learning. Self efficacy is also an important concept in Bandura's social cognitive theory. Self-efficacy refers to people's judgment of their capabilities to organize, execute and accomplish certain performances (Kirk & Gallagher, 1989). Teachers were supposed to be sources of self-efficacy for their learners by giving ability-related activities for the learner to experience success, provide positive vicarious experiences, verbal persuasion and emotional arousal. The presence of such environment would enhance acquisition of DLS by learners with MR.

### **1.11 Conceptual Framework**

Teaching methods, Concrete teaching/learning materials, Challenges experienced and Application of Methods are vital in teaching of DLS to learners with MR as shown in Figure 1.1

**Figure 1.1 Conceptual Framework on Acquisition of DLS by Learners with MR**



**Source:** Self developed

These factors formed the independent variables in this study. The impact of independent variables on acquisition of DLS by learners with MR would not be effective without the teacher operating them in an exciting environment. If operated in such an environment, the most likely result would have been acquisition of DLS by learners with MR. The arrows from independent variables focus on the teacher. The

interaction between independent variables and trained teachers in special units leads to the outcome expectancy, which is the acquisition of daily living skills for independent living. The flow of arrows show the interaction between independent variables and the trained teacher for MR which produce a learner with the ability to live independently. This was an environment where attention and retention were ensured through practicing the skills taught and interacting with learning materials. Learners were also reinforced and rewarded vicariously. Use of Individualized Education Programme (IEP) was ensured to cater for individual ability and needs. This increased the outcome expectancy which was acquisition of DLS and independent living of the learner with MR.



### **1.12 Operational Definitions of Terms**

**Daily Living Skills:** Skills that enable the learner with MR to live independently such as dressing, personal care, self-hygiene, functional academics, money and time.

**Deficit in Adaptive Behaviour:** Deficits in social skills, self-care, home living, leisure, self-direction, functional academics, use of community facilities and work.

**Mentally Retarded:** These learners exhibit significant sub-average general intellectual functioning, existing concurrently with deficits in adaptive behavior, and is manifested during developmental period. It affects a child's educational performance.

**Teaching/Learning Materials:** These are materials which enhance teaching and acquisition of given skills. They may include toys, cups, basins, soap, water, dresses, shorts, among others.

**Teaching Methods/Approach:** These are team teaching, interactive teaching, direct teaching, cooperative, group teaching and peer tutoring.

**Teaching Strategies/Intervention Strategies:** Are different styles used by teachers to enhance teaching methods for quick and easier grasp of concept by learners.

**Training:** Imparting knowledge, skills and attitudes to teachers so that they can handle their learners correctly.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.0 Introduction**

The literature in this chapter was reviewed under the following themes: Overview of mental retardation, Daily living skills, teaching methods, how teachers employed the methods, teaching/learning materials for augmenting methods, and the challenges experienced when implementing methods for acquisition of daily living skills by learners with mental retardation. Finally, there will be a summary of the chapter.

#### **2.1 Overview of Mental Retardation**

The US Department of Education defines Mental Retardation as “significant sub-average general intellectual functioning existing concurrently with deficits in adaptive behavior, and manifested during developmental period that adversely affects a child’s educational performance”, (Turnbull A., Turnbull R. & Wehmeyer, 2007). From the definition, it is clear that a learner with MR performs significantly below average, as he/she manifests deficits in cognition as well as adaptive behavior. Heward (2006) observes that many individuals with mild MR make tremendous advancements in adaptive skills, some to the point of functioning independently if exposed early to DLS. Some children with mild retardation are not identified until they enter school and sometimes, when more difficult academic work is required. Few go up to class 6 and are able to learn job skills well enough to support themselves independently or semi independently (Heward, 2006). Acquisition of DLS would also activate general development of their intellectual, social, motor and moral characteristics as well as raising their self esteem.

Children with moderate mental retardation show significant delays in development during their preschool years (Turnbul et al, 2007). People with moderate mental retardation are more likely to have health and behavior problems than are individuals with mild retardation. Individuals with severe and profound mental retardation are almost always identified at birth or shortly afterwards. Most of them have significant central nervous system damage, and many have additional disabilities and/or poor health conditions (Heward, 2006). These two groups hardly function without support from caretakers, who, in most cases are their parents.

## **2.2 Daily Living Skills**

Daily living skills are home and community living techniques that allow individuals to deal with current and future day to day demands and responsibilities. These skills enable the individual to learn to be independent and responsible. The skills are; personal care and hygiene, clothing-dressing, laundry process, shoe and shoe care, food preparation and eating, money, transportation, job skills, home and kitchen management, time management, leisure and recreation (Friend, 2008).

## **2.3 Methods of Teaching Daily Living Skills**

Teaching of DLS to learners with mild MR was aimed at making them acquire personal and independent skills. To achieve this, teachers indentified and used teaching methods which they felt were effective for training DLS. Some of the methods used in the Special Units were: team teaching, interactive teaching, direct teaching, cooperative, group teaching and peer tutoring. Some of them are discussed below.

### **2.3.1 Interactive Teaching**

This is a method of teaching where learners are involved in different activities during the lesson. For instance, some learners would be involved in distributing materials, others in arranging tables, while still others did other class activities (MoE, 2001). The involvement made them active and attentive. It also made them feel appreciated. That method was important because it assisted the learners to avoid being engaged in other types of behavior that would make them be withdrawn from the learning situations.

### **2.3.2 Cooperative Teaching**

This is a teaching method aimed at improving academic achievement and social acceptance of learners with mild mental disabilities. It involves arranging learners into cooperative learning groups. Rather than competing against one another for grades, group members share the responsibilities for helping each other learn. The emphasis within each group is cooperation and shared responsibility. Cooperative learning arrangements promote increased academic achievements for learners with mild mental disabilities. Cooperative teaching is considered a promising instructional approach (Turnbull et al, 2007). It encourages pupils with varying strengths and abilities to work together toward achieving a common goal. It is a method in which small heterogeneous groups of learners are actively involved jointly in accomplishing an activity or assignment. The teacher structures the task such that each pupil significantly contributes to the completion of the activity according to his/her ability (Gargiulo, 2006). It increased opportunities for learners to experience success in

school. It also benefited all pupils by enhancing their self-esteem as well as increasing acceptance and understanding between learners themselves.

### **2.3.3 Direct Instruction/Teacher-Directed Approach**

Direct instruction focuses on the teaching process, offering special educators powerful methods for improving the academic achievement of their learners with mild MR. Teachers ensure that individual learners receive assistance depending on their needs. The teacher maintains a strong academic focus and almost all available instructional time intensity. The teacher also ensures that he/she chooses appropriate tasks for his/her learners, as well as monitoring their progress. Learners with mild MR may not benefit much from direct instruction, reason being that their short attention span, poor memory and general deficits in cognition. Teaching strategies such as IEP, modeling, task analysis among others discussed below are used to enhance learning of DLS.

### **2.3.4 Peer Tutoring**

This is involvement of other students as instructional aides. Learners with mild MR can serve as tutors for younger peers. Peer teaching allows learners more opportunity for interaction and feedback from one another (Pierangelo & Giuliani, 2008). To ensure success of peer tutoring programs, the teacher must remain actively involved. Teachers facilitate the learning by ensuring that relevant DLS are practiced. Teachers also monitor the performance of both tutors and tutees. Peer tutoring has a potential of improving academic achievement of learners but it does not necessarily improve the self concept of learners with mild MR.

### **2.3.5 Team Teaching**

In this method of teaching, staff members combine their specialized skill areas to team-teach the learners in the unit. In addition to staff members, other various professionals and paraprofessionals can be part of the teaching team. Each of the team members contributes according to his/her specialty areas. Pierangelo & Giuliani (2008) posits that utilization of team-teaching provides the child with ongoing, consistent and individualized focus in all DLS. This approach enables the learner to get the right skills from the specialist teacher.

### **2.4 Implementing Daily-Living Skills to Learners with MR**

No single instructional method for teaching learners with mild MR is successful for all learners. Since learners with MR have diverse learning needs, most teachers apply different methods so as to meet their individual needs (Pierangelo & Giuliani, 2008). The studies by Pierce and Schreibman (1994) demonstrated that use of pictorial self-management to teach DLS was effective. When picture order was manipulated by learners, they were able to follow the new picture sequence, suggesting that the pictures controlled their behavior. Pierce and Schreibman (1994) also argued that teaching of Self Help Skills (SHS) to parents so as to train their children with MR using Behaviour Modification showed that children acquired self help skills. Twenty one (21) of the children acquired SHS as a result of being taught by their parents. The study also showed that the skills remained even after the tangible reinforcers were removed.

Another study carried out by Kaur, (2005), involved three children with brain damage (two with Downs' syndrome, one with an unknown etiology). The three were exposed to a poorly trained attendant. After a short time, these children did not show any improvement in SHS. The Graduate student (professional) trained the same learners and they acquired the skills within a few months. Yet another study in the same place involved 8 girls, all roughly 10 to 12 years of age. One girl had a serious problem. She continually used others toothbrushes as she could not remember the color of hers. The graduate student and the house mother trained the girl and she was able to recognize her toiletries (Kaur, 2005). To make methods of teaching effective, teachers need to use various strategies such as IEP, Task analysis, Visual approaches, modeling, and reinforcement among others (Klein & Cook, 2001). Evidence suggests that learners with disabilities and learning problems most frequently do best in structured programmes where effective direct teaching methods are employed. In particular, Kamuri (2005) asserts that learners with MR require an environment which is well organized and a programme which is presented clearly and with abundant opportunities for success. Other research-proven strategies such as Video Prompting (Cannella-Malone et al, 2011) may be used to teach DLS to learners.

In addition to teaching methods and concrete learning materials, trained teachers particularly in mental retardation, approach the art of teaching DLS critically and reflectively. They are innovative, open minded and altruistic, willing to take risks with themselves and their learners. They are also capable of making critical judgments about skills for individual learners (Arends, 1994). As experts, they use relevant and best methodologies to impart skills for independent living to their

learners. In addition to using research based practices, these teachers are guided by their professionalism to use other methods not guided by scientific knowledge but which depend on individual judgments based on personal experiences, as Gage (1984) describes the art of teaching as:

*“An instrumental or practical art .....that requires improvisation, spontaneity, handling of hosts of consideration of form, style, pace, rhythm and appropriateness in ways so complex that even computers must, in principle, fall behind, just as they cannot achieve what a mother does with her five-year-old or what a lover says at any given moment to his or her beloved (p. 6)”.*

For the above to take place, teachers for DLS must be effectively trained (Friend, 2008). Trained teachers are, therefore, aware of the DLS needed by their learners than anybody else. They also have wisdom of other prerequisites of those skills. Most challenges they face while teaching DLS in their classrooms are characterized by their uniqueness. This makes teachers take their learners as unique individuals and solve their individual problems accordingly (Arends, 1994). On the contrary, untrained teachers lack understanding of the methods of teaching and intervention strategies. According to Kaur (2005), such teachers lack ‘integrity’ of the teaching profession. He argues that teachers without proper knowledge of teaching methods underestimate the power of intervention strategies. Kaur compares this characteristic of untrained teacher to watering down antibiotics and then try to evaluate their effects on children’s illnesses. Teaching strategies are therefore important in teaching DLS to learners with MR.



## **2.5 Teaching (Intervention) Strategies**

No single teaching method for DLS of learners with MR can work alone, without teaching strategies. Teaching strategies enhance and enrich teaching methods for learners with mild MR (Klein & Cook, 2001). Some of the intervention strategies for learners with MR include; modeling, applied behavior analysis, task analysis, IEP, discrete trial training and structured teaching.

**2.5.1 Modeling:** Modeling is learning by observation and imitation. Modeling is also referred to as observation learning, copying or even role playing. Modeling involves observation, imitation and copying. It incorporates such processes as Attention phase, Retention Phase, Reproduction Phase and Motivation Phase.

**2.5.2 Applied Behavior Analysis:** Applied behavior analysis is an intervention strategy used by teachers to increase the occurrence of desired behavior and decrease undesired behaviors in all learning situations. This method relies on the direct, repeated measurement and recording of observable behaviors targeted for change. This strategy helps the teacher to remain focused and work on the targeted skills only (Reynold & Zupanic, 2011).

**2.5.3 Discrete-Trial Training:** This strategy is mostly applicable when teaching new DLS skills. It is mostly applicable in teacher-directed methods. It involves presentation of a stimulus or teacher's instruction, and then learner's response is followed by a consequence in each trial. A correct response is reinforced with praise or a tangible reinforcer, while incorrect responses result in correction such as verbal

feedback or physical guidance. This type of strategy generally includes multiple trials in teaching a specific DLS.

**2.5.4 Structured Teaching:** This is an intervention strategy developed by the University of North Carolina, US. It involves understanding of the unique features and characteristics of learners with MR, organizing learners' environment, developing appropriate learning activities and teaching of DLS skills through various teaching methods. Brennan (1987) adds that this strategy also involves helping learners with MR understand what is expected of them. Pierangelo & Giuliani, (2008) stresses that structured teaching greatly enhance a learner's acquisition of DLS for independent functioning which will assist him/her throughout life.

**2.5.5 Task Analysis:** This is a teaching strategy which involves breaking complex tasks down into subtasks and reinforce in small, teachable steps (Turnbul et al, 2007). In teaching DLS to learners with MR, the sub-skills may need to be taught and reinforced in sequence, for easy mastery of the skills.

**2.5.6 Individualized Educational Programme:** This is a strategy that assists teachers to enhance teaching DLS through addressing individual learner's needs. It spells out where the child is, where the child should be going, how the learner will get there, how long it will take and how to tell if the child has arrived (Friend, 2008). The learner with MR is assisted according to his/her individual needs and abilities.

## **2.6 Teaching /Learning Materials for Enhancing Teaching Methods**

Teaching and learning materials cultivate motivation in the learners and make them active participants in the learning process (Government of Kenya, 2008). Teaching and learning materials capture and maintain learners' attention, help them to understand what is being taught, and learn new skills (Ministry of Education, 2009). Learners with MR require materials over and above what is already being provided by the school. Friend (2008) asserts that selection, adaptation and development of educational learning materials for learners with mental retardation should be guided by ability level of the learner, age, educational needs of the learner, interest of the learner, activity to be done and also the objectives of the activity.

Learning materials may be expensive, shop-bought equipment or can be made from locally available materials. Moreover, it is important to note that all learners especially those with MR need materials which they can touch, feel, see and even play with. They need concrete materials for concept formation. The materials should reflect their functional curriculum and therefore, such themes as personal care, feeding, care of the home, food selection and preparation, safety and security, recreation and leisure, money, health and HIV and AIDS require concrete and situational materials (MoE, 2009). The question of adequacy and appropriateness in teaching daily living skills to learners with mental retardation is not supposed to arise. Most of these materials are very expensive and others are not locally available, it is uncertain that special units have appropriate materials for all learners (MoE, 2001). It is also likely that lack of appropriate teaching and learning materials may affect the effectiveness of teaching methods in implementing of DLS to learners with mild MR.

This study will, therefore, establish if teaching /learning materials may affect teaching of DLS to learners with MR.

### **2.7 Challenges in Implementing DLS to Learners with MR**

The teaching of DLS to learners with MR has its own challenges. In most of the units, teaching/learning materials are lacking which implies that training of DLS is threatened. Due to limited funding by the Ministry of Education, the school administration may not be able to procure enough teaching and learning materials to enhance teaching of DLS in the units (National Action on Education for All 2003-2015). Teacher-student ratio in most units is high especially because of free primary education. This limits the implementing of IEP services. In a report by the UN (2003), it was noted that one of the challenges the National Alliance Rainbow Coalition (NARC) government (Kenya) faced was inadequate provision of education to the children with disabilities. This affected teaching of learners with MR, specifically teaching of DLS which require concrete materials for concept formation. McMary & Sarah (2005) observes that negative attitude from both the teachers and the school administration play a significant role in the teaching of DLS to learners with MR. Negative attitude makes the teacher feel detached from the learners. This limits the teacher's attachment and interest in teaching DLS to learners with MR, hence they continue being dependent on other people.

Other challenges experienced when implementing DLS to learners with MR is lack of trained personnel for learners with MR. Teachers who are not trained in the area of MR may not understand their learners' characteristics hence not apply teaching

methods or even strategies effectively. In extreme cases, ignorance concerning disability can result in quite damaging prejudice, hostility and rejection (Friend, 2008). This is even more serious if the disability is MR because of its characteristics of deficits in both adaptive behavior and IQ. Koech Report (1999: 97) summarizes the challenges encountered in implementing DLS when he asserted that ‘there is nothing more unequal than the equal treatment of unequals’. The report asserts that the quality of the service for children with special needs in Kenya is adversely affected by acute shortage of specialized aids and equipment, specialized personnel, inappropriate curriculum, insufficient institutions and programmes, lack of coordination and unity of purpose between and among service providers, inadequate support staff, an absence of clear policy guidelines, lack of legal status on special education, provisions, laxity on the side of government to fund special education materials among others.

## **2.8 Summary of Literature Review**

Daily living skills are vital to all human beings. Learners with MR do not acquire them normally as their non-handicapped counterparts. Normal children acquire these skills normally as they go through developmental milestones. Due to their condition, learners with mild MR delay in development and also in acquiring these skills. They acquire DLS through training or being taught by teachers in schools. Some of the methods that teachers may use to teach DLS are: Interactive, cooperative, direct instruction, peer tutoring and team-teaching. Most trained teachers make their teaching effective by accompanying teaching methods with various teaching strategies such as IEP, task analysis, modeling, structured teaching, discrete-trial-training and applied behavior analysis. Teachers in the units apply different methods

to teach DLS. Different studies indicate that trained teachers apply teaching methods and intervention strategies more effectively than untrained ones.

Teaching and learning materials have also been reviewed in this section. Different studies indicate that learners with MR require concrete learning materials to make learning situation real for concept formation (McMary & Sarah, 2005). Hindrances to acquisition of DLS by learners with mild MR have also been reviewed. Some of the challenges affecting implementation of DLS to learners with mild MR are: inadequate trained personnel, large classes which do not match available educational facilities, and inability to procure enough teaching and learning materials to enhance teaching of DLS (National Action on Education for All 2003-2015). Several studies indicate that learners with MR can acquire DLS if teaching methods and strategies are applied effectively. A study by Cannella-Malone, Fleming, Yi-Chung, Geoffrey, Abby and Angela (2011, July) on teaching DLS to learners with MR compared effects of video prompting and video modeling in teaching learners to wash dishes and laundry work. Their findings were that video prompting was more effective than video modeling. A study carried out in Nairobi by Okoko (1998) indicates that learners with MR can acquire skills of physical education when teaching methods are used effectively. The literature reviewed confirmed that learners with MR can learn different skills if proper methods, materials, and strategies were employed effectively. Despite the ability of learners with MR to acquire skills, this was not the case in regard to the acquisition of DLS by MR in Kasarani sub –county. This prompted the researcher to carry out the study since there is no other study which has been carried out in Kasarani Sub-County addressing the effectiveness of teaching methods for DLS.

This study therefore is to determine effectiveness of teaching methods in the acquisition of DLS for independent living by learners with mild MR in Kasarani sub – county, Nairobi County, Kenya which other studies never addressed.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

The chapter describes the methods that were used to conduct the study. It focused on research design, variables, location of the study, target population, sampling techniques and sample size, research instruments, pilot study, data collection procedures, data analysis, logistical and ethical considerations.

#### **3.1 Research Design**

The study employed descriptive survey design involving both qualitative and quantitative approaches. Descriptive survey is a method of collecting data by interviewing or administering a questionnaire to a sample of individuals (Orodho, 2003). According to Kombo and Tromp (2006), descriptive survey can be used to collect information about the nature of the existing condition, identifying the standards against which existing conditions can be compared as well as determining the relationship between specific events (Orodho, 2004). The design was suitable for the study in that the researcher was able to determine the effectiveness of teaching methods on acquisition of DLS by learners with MR. Data collected through this design enabled the researcher to report the status of effectiveness of teaching methods on the acquisition of DLS to learners with MR in Kasarani district, Nairobi County, Kenya.

#### **3.2 Study Variables**

Both Dependent and Independent variables were used in the study.



### **3.2.1 Independent Variables**

In this study, independent variables were: Teaching methods, application of the teaching methods, teaching/learning materials and challenges encountered in teaching DLS.

### **3.2.2 Dependent Variable**

The dependent variable was acquisition of DLS by learners with mild MR. The skills were feeding, dressing, washing and combing hair, brushing teeth, expressing one's needs, shoe-lacing, money and budgeting, use of leisure time, telling when sick, telling when to take medicine and making use of community facilities among others.

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

The study was carried out in Kasarani District, Nairobi County, Kenya. Nairobi County consists of four administrative districts, namely; Westlands, Nairobi East, Nairobi West and Nairobi North, (currently Kasarani District), (Kenya National Census, 2009). Kasarani District headquarters is located off Thika Road and about two kilometers from Kasarani police station, off Mwiki road, about five hundred meters from Kasarani dispensary. Kasarani District is to the North-East of city centre, about five kilometers from the Central Business District (CBD). The choice of Kasarani district was mainly based on the fact that it had the highest prevalence of persons with MR (1,587) as compared to other districts whose prevalence was as follows: Nairobi West-1,075, Nairobi East-1,303 and Westlands-340 respectively (Kenya National Census, 2009). The District also had the highest number of special units for learners with MR, in regular primary schools (T.S.C. Educational

Management Information Systems (EMIS), 2011). From the studies reviewed, no other study had been carried out previously to establish effectiveness of teaching methods for acquisition of DLS by learners with mild MR in Kasarani district. The information gathered helped to understand the situation about effectiveness of teaching methods and acquisition of DLS in the district. Finally, the selection of Kasarani was ideal, considering personnel and financial resources available to the researcher.

### **3.4 Target Population**

The target population was eighty-four (84) respondents. The researcher studied the whole population because it was convenient for the study to capture all issues envisioned in research objectives. There were sixty-four (64) learners with mental retardation in special units in public primary schools, fourteen (14) teachers and six (6) head teachers in six special units in Kasarani District, Kenya (EMIS, May, 2011). The study units were Njathaini, Marurui, Githurai, Garrison, D. Comboni and Baba Dogo. Kiwanja special unit was used as a pilot school since it had similar characteristics as other special units sampled for the study. The pilot unit enabled the study to pilot the tests and fine-tune the efficacy of research instruments prior to actual field study.

**Table 3.1 Target Population**

<b>Units</b>	<b>Number of Learners</b>	<b>Teachers</b>	<b>Head teachers</b>	<b>Total</b>
Baba Dogo	19	3	1	23
Njathaini	12	2	1	15
Marurui	4	1	1	6
Githurai	20	4	1	25
Garrison	4	3	1	8
D. Comboni	5	1	1	7
<b>Total</b>	<b>64</b>	<b>14</b>	<b>6</b>	<b>84</b>

**Source: EMIS, May, 2011**

### **3.5 Sampling Techniques and Sample Size**

This part presents the sampling techniques that were used by the researcher in selecting the sample for the study.

#### **3.5.1 Sampling Techniques**

The study used Purposive sampling technique. Purposive sampling method is whereby the elements are deliberately chosen because they suit a certain criteria that the study is interested in exploring (Gay, 1992). The elements were considered either outstanding or typical variables with which the research was concerned. The rationale for purposive sampling of Kasarani District was because it had the highest (1,587) number of persons with mental retardation (Kenya National Census, 2009). This sole attribute made the study locale ideal to enable the study achieve its objectives. It also ensured a fair representation of learners with MR.

Purposive sampling was used to select the seven public primary schools with special units for learners with MR. They were Babadogo, Githurai, Marurui, Kiwanja,

Njathaini, Garrison and Daniel Comboni. Out of the seven special units, one unit (Kiwanja) was randomly sampled for piloting as it was assumed to have similar characteristics as other units. The remaining six units were involved in the main study. Teachers were purposively sampled. Those were the teachers involved in teaching learners with MR in the units and were assumed to have knowledge of the teaching methods, how to implement them, the teaching/learning materials to use, as well as identifying challenges hindering teaching of the DLS. Head teachers were also purposively sampled because they were involved in the management of special units in their schools. Consequently, apart from the head teacher in the pilot school, the remaining six head teachers were involved in the main study. Further, purposive sampling was employed to select learners with MR. The study targeted only learners with MR in special units in public primary schools in Kasarani sub-county. Thus the study left out learners with MR who were in private institutions, in public special schools and those who were not in any learning institutions altogether.

### **3.5.2 Sample Size**

The special units in the area of study were few (seven). Out of the seven special units, one unit was used for pilot study. The remaining six units were used for the main study. Therefore, all the special units in primary schools were used in the study because they were few and easily accessible. Findings from all the units were helpful in making reliable conclusions. A total of sixty-four (64), (100%) learners were involved in the study. Being a heterogeneous group of learners, it was vital to study each learner because their learning characteristics were quite different. All teachers from special units were used in the study since they were fourteen (14) only.

Therefore a total of eighty-four (84) respondents were used in the study (see table 3.1).

### **3.6 Research Instruments**

Research instruments are tools used by researchers to gather data/information from respondents (Cresswel, 2005). In this study, two research instruments were used to collect data. They were questionnaires and observation checklist.

#### **3.6.1 Questionnaires**

There were two questionnaires; one for head teachers and the other one for the teachers in the units. Questionnaires had different sections. Section A was on general information while other sections were on teaching methods, application of the methods, challenges encountered in teaching and finally, teaching/learning materials. The questionnaires for head teachers had twelve questions, while that of teachers had twelve questions. The respondents were expected to respond by writing or making a tick on the questionnaire form. The questionnaire contained both structured closed-ended and unstructured open-ended questions. Unstructured open-ended questions are type of questions in which the respondents are given complete freedom to express their views about a particular phenomenon (Orodho, 2009). Structured closed-ended questions are the ones in which a list of possible alternative options are given for respondents to select the response that best describes their opinions (Orodho, 2009). Questionnaires are useful in collecting data over a large sample and saves time (Kombo and Tromp, 2006). Questionnaires also can be given to a large number of people at the same time (Creswell, 2005), (appendix one &two).

### **3.6.2 Observation Checklist**

An observation checklist is a research instrument or a tool of gathering information. This kind of checklist consists of behaviors that make up a certain type of performance (Frankel and Wallen, 2003). It is used to determine whether or not an individual behaves in a certain way when asked to complete a particular behavior task. The items in the checklist consisted of the DLS the learners were being trained in. If a learner was able to perform a particular skill, the observer (researcher) placed a check or a tick opposite it on the list and not against the skill the learner attempted to perform. That helped to avoid subjective judgments on the side of observer by asking 'how well the learner performs the skill'. The researcher used self-made observation checklist (appendix three).

### **3.7 Pilot Study**

The pilot study was conducted in one of the units which was not included in the main study due to ethical reasons. The aim of piloting was to make the instruments clearer to the respondents. Necessary adjustments were made after the pilot study which improved on the instruments before the actual data collection. Piloting enhances the efficacy of the instrument to capture pertinent data that enabled the study to adequately respond to the issues raised in the research objectives. This made the study to achieve its objectives by collecting reliable data upon which findings are based and relevant conclusions and recommendations for further study were made.

### **3.7.1 Validity**

In this study, content validity was used. Content validity of the questionnaires was determined by experts (two supervisors) in the area of study. Validity was concerned with establishing whether the questionnaire content was measuring what it was supposed to measure. Therefore the questionnaires and observation checklist were scrutinized and some items corrected to improve their validity. Validity is the degree to which a test measures what it purports to be measuring (Orodho, 2009). A test is said to be valid if it serves the purpose to which the researcher wish to put it. Content validity was further strengthened by piloting of the tools since the tools were able to capture the appropriate content that enabled the study to realize its objectives.

### **3.7.2 Reliability**

Test-retest method was used to estimate the reliability of the research instruments. It involved administering the same instrument twice to the same respondents but at a two-week lapse between the first and the second testing. The first results obtained were scored. The same tool was given to the same respondents after two weeks and the scoring done again. To compare the test results of the two tests for reliability, the spearman rank order correlation coefficient was used and reliability level was 0.6 for questionnaires and 0.5 for observation checklists. There was no significant difference between the first and the second test scores, which showed that tools were fairly reliable to help realize the objectives of the study.

### **3.8 Data Collection Procedures**

Before proceeding to the field, the researcher got permission to collect data from Kenyatta University Graduate School, and then sought permit from permanent secretary, Ministry of Higher Education, Science and Technology (M.o.H.E.S.T). The researcher visited the selected schools and made orientations and also notified the school of its selection for the study. The purpose of the study was explained to the administrator. During the visit, arrangements were made regarding the time of data collection. Primary data was obtained from head teachers, teachers and learners from the units in the sampled schools using questionnaires and Observation checklists.

Respondents selected for the study were given questionnaires to fill, which were collected immediately after completion. The respondents were given adequate explanation before responding to the items. The researcher made all possible attempts to ensure that the data attained from questionnaires and observation checklists was valid and reliable. The researcher filled the checklist through class observation. The researcher used a checklist with each learner as they carried out the activities. A mark was put against the activity a learner was able to carry successfully and no tick was put against an activity a learner failed to perform. To ensure this, the researcher established a good rapport with respondents and assured them that the information they gave would be treated with utmost confidentiality.

### **3.9 Data Analysis**

The data collected was analyzed using qualitative and quantitative methods. Thematic approach was also used to analyze the data. Under thematic approach, the gathered



information was sorted out, classified and categorized according to the four themes of the study. The themes were teaching methods, application of the methods, teaching/learning materials and the challenges encountered in teaching DLS. All the information relevant to a particular theme was gathered together and further analyzed to yield answers to research questions raised in this study.

Under thematic approach information was sorted out, classified and categorized in the four themes of the study. The materials relevant to a particular theme were placed together. Qualitative data was presented using narrative statements. Quantitative data was presented using tables, frequencies and percentages,

The findings of the study were used to make conclusions and recommendations emanating from the study. Suggestions for further research were also recommended in order to gather more information on learners with mental retardation.

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

Participation in the research as a respondent was voluntary. Permission was sought from the MoEST before any data collection was done. Permission was also sought from the head teachers and their special unit class teachers during the initial visit to the sampled schools before involving them. The researcher established a good rapport with the head teacher and special unit class teachers. Further consultation was done with special unit class teachers to agree on the convenient time for lesson observations. They were assured that the information would be treated as confidential and would be used only for the purpose of the study.

## **CHAPTER FOUR**

### **DATA PRESENTATION, ANALYSIS AND DISCUSSIONS**

#### **4.0 Introduction**

The findings of this study are presented in this chapter based on the data collected from the respondents and as per research objectives. Thus the following sections are discussed: Demographic information, identification of teaching methods, application of the methods, challenges encountered when teaching, and the teaching/learning materials used in teaching DLS.

#### **4.1 Demographic Information**

The demographic information of respondents is discussed under the following subheadings; Age of learners with MR, Duration of learners in the units, Teacher qualification, Area of specialization and experience.

##### **4.1.1 Age of the Learners with MR in the Units**

The age of the learners with MR in the special units was 7 to 18 years old. Forty-one, (64%) of them were between 10-18 years old. Twenty-three or (36%) were 9 years old and below. If they were taught using right methods and concrete teaching/learning materials, learners of that age would acquire DLS, though at a slower pace. However, according to the results from the lesson observation checklist, the learners were not able to perform the DLS, which meant they were not taught well. This indicated that teachers lacked training and interest in the area of MR.

#### 4.1.2 Duration of Learners in the Unit

Some learners had been in the unit for a long time yet their performance in DLS was still low as compared to their age-mates in the regular classes.

**Table 4.1 Duration of learners with MR in the units**

<b>Yr of admission</b>	<b>Time in unit</b>	<b>Frequency</b>	<b>Percentage</b>
2012	6months	12	18
2011	1yr	14	22
2010	2 yrs	4	6
2009	3 yrs	8	13
2008	4 yrs	10	15
2007	5 yrs	8	13
2006	6 yrs	8	13
<b>Total</b>		<b>64</b>	<b>100</b>

From the table 4.1, 52 (82%) of the learners with MR had been in the unit between 1-6 years, and were still in the unit. 54% of the learners with MR had been in the unit for the last 3 to 6years. It would have been expected that such learners learnt DLS if proper methods of teaching were chosen, applied well and right materials used by specialized teachers in the area of MR. This was attributed to lack of trained teachers in the area of MR. Without proper knowledge of teaching methods teachers would not be able to impart the correct skills to the learners with MR.

#### 4.1.3 Teacher Qualification, Specialization and Experience

Teacher qualification, specialization and experience has a great impact on the acquisition of DLS by learners with MR.

**Table 4.2 Teacher Qualification**

<b>Qualification</b>	<b>Freq</b>	<b>%</b>
B.ED (Special)	10	72
B.ED (Lit/Eng)	1	7
M.ED (Special)	1	7
Technical	1	7
Dip (Inclusive)	1	7
	<b>14</b>	<b>100</b>

The study findings in Table 4.2, indicates that 10 (72%) of teachers in the units had a bachelor's degree and 1 (7%) a master's degree in special education. One (7%) had a diploma in inclusive education, 7% had B.ED in English and another one 7% had done Technical training. A learner with MR can learn DLS requires a specialist in the area of MR to learn DLS effectively. The 72% of teachers with special education without specific knowledge in MR cannot train DLS to learners with MR

**Table 4.3 Specialization**

<b>Spec'n</b>	<b>Freq</b>	<b>%</b>
<b>PH</b>	<b>4</b>	<b>29</b>
<b>LD</b>	<b>2</b>	<b>14</b>
<b>MR</b>	<b>3</b>	<b>22</b>
<b>HI</b>	<b>2</b>	<b>14</b>
<b>Technical</b>	<b>1</b>	<b>7</b>
<b>Inclusive</b>	<b>1</b>	<b>7</b>
<b>English</b>	<b>1</b>	<b>7</b>
	<b>14</b>	<b>100</b>

The study findings in Table 4.3 indicates that 29% of teachers had specialized in physically handicapped, 22% in MR, 14% in learning disabilities, another 14% had specialized in hearing impairments and one teacher (7%) had done inclusive, which is a general area in special education. Seventy-eight percent (78%) were the teachers in the units for learners with MR without special skills to teach DLS. That meant they

were not specialists in the area of MR and therefore not acquainted with the methods of teaching, strategies to use, how to apply them to teach DLS and also the right materials for enhancing methods of teaching.

**Table 4.4 Experience of teachers in years**

<b>Exp.(yrs)</b>	<b>Freq</b>	<b>%</b>
<b>1</b>	<b>3</b>	<b>22</b>
<b>2</b>	<b>2</b>	<b>14</b>
<b>3</b>	<b>1</b>	<b>7</b>
<b>5</b>	<b>4</b>	<b>29</b>
<b>7</b>	<b>1</b>	<b>7</b>
<b>10</b>	<b>1</b>	<b>7</b>
<b>16</b>	<b>2</b>	<b>14</b>
	<b>14</b>	<b>100</b>

Teacher experience in teaching DLS could improve the performance of learners. However, a long experience without training in the area of MR could not translate into effective teaching and acquisition of DLS by learners with MR. The findings indicated that 78% of teachers had between two to sixteen (2-16) years of experience, yet learners had not acquired most DLS. In fact 3 (22%) of teachers said they loved being in the units because there was little or no work to be done. That seemed to mean that the three teachers have been in the unit for many years because they believed there was little or no work.

## **4.2 Teaching Methods**

### **4.2.1 Identification of DLS**

The study inquired whether DLS was taught to learners with MR in the units. All the 14 (100%) teachers and 6 (100%) head teachers agreed that DLS was taught to their

learners with MR. The study also required head teacher respondents to identify the DLS taught to learners with MR. They listed the daily living skills they thought were taught to learners with MR. Their responses are as tabulated in table 4.5.

**Table 4.5 DLS Identified by Head teachers**

<b>Skill</b>	<b>Frequency</b>	<b>Percentage</b>
Reading	2	14
Drawing	1	07
Self hygiene	4	30
Laundry work	1	07
Shoe lacing	1	07
Farming	2	14
Table manners	1	07
Care of the home	1	07
cooking	1	07
<b>Total</b>	<b>14</b>	<b>100</b>

From Table 4.5, 4 (30%) of the head teachers mentioned self hygiene, 2 (14%) mentioned reading while another 2 (14%) cited farming as DLS taught to learners with MR. The mention of farming and reading clearly showed that the respondents lacked knowledge in special needs education and specifically that of learners with MR. It is only a meager 7% who mentioned the salient DLS such as cooking, care of the home, table manners, shoe lacing, laundry work among others. Those findings indicated that most head teachers were not aware of the DLS supposed to be taught to learners with MR. That was evidenced by the observation checklist which demonstrated that 59 out of 64 or (92%) learners could not perform even simple tasks like shoe-lacing, 45 out of 64 or (70%), cleaning utensils, 55 out of 64 (86%) identifying different coins or even tell prices of most common items bought from shops. Failure of teachers to mention the correct basic skills for DLS indicated that

they lacked training in the area of MR .This made learners to remain dependent on their parent / guardians.

#### 4.2.2 Identification of DLS taught to learners with MR by Teachers

Teachers in the units were also required to tell the DLS they taught to the learners with MR. The teachers listed the daily- living skills they taught to their learners. Their responses were as tabulated in Table 4.6

**Table 4.6 Teacher Identification of DLS**

<b>Skill</b>	<b>Frequency</b>	<b>Percentage</b>
Self-hygiene	14	47
Self defense	01	03
Table manners	04	16
Food preparation	02	07
Care of the home	03	10
Knitting	02	07
Dressing	02	07
Money	01	03
<b>Total</b>	<b>30</b>	<b>100</b>

The findings in table 4.6 indicates that 47% of the teachers mentioned self hygiene, 16% mentioned table manners, 10% of them mentioned care of the home, while knitting, dressing and food preparation were mentioned by 7% each. 03% mentioned money. The findings indicated that 47% of teachers were aware of self hygiene as a component of DLS. A small number (03%) of teachers who mentioned other skills such as money, dressing (07%), knitting (07), home care (10%), food preparation (07%), table manners (16%) indicated that they did not know much of what learners with MR should learn. That meant such teachers could not teach DLS effectively since they were not aware of all the DLS needed by learners with MR. Knowledge of few DLS is an indication that learners were taught few skills. This was true because

the lesson observation checklist depicted that some skills like shoe lacing was not taught as 92% teachers did not know it was a basic DLS. The checklist of learners' performance confirms that they have not learnt DLS.

#### 4.2.3 Identification of Teaching Methods for DLS

The study sought to establish teaching methods used to teach DLS to learners with MR from both the head teachers and teachers. Their responses were tabulated in Table 4.7

**Table 4.7 Methods Used to Teach DLS - Head teachers**

<b>Head teachers</b>		
<b>Item</b>	<b>Frequency</b>	<b>Percentage</b>
Question/answer	01	10
Story telling	01	10
Look and say	02	20
Demonstration	03	30
Observation	03	30
<b>Total</b>	<b>10</b>	<b>100</b>

The findings in Table 4.7 indicated that demonstration and observation was cited 3 (30%) times each, by the head teachers as the key methods to teach DLS. Look and say was mentioned twice (20%), question and answer was cited once (10%) and storytelling was also mentioned once (10%). The observation, look and say, and storytelling as teaching methods is grossly inappropriate for teaching DLS to MR since they are too abstract or theoretical instead of being practical. The so called



teaching methods for DLS mentioned by head teachers clearly indicated that they lacked knowledge of the appropriate methods and perhaps even concept of the needs of learners with MR. It then follows that if head teachers were not aware of the right methods of teaching DLS, then they could not tell whether teaching was effective or not. According to Friend (2008), a teacher for learners with MR should be guided by ability level of the learner, age, educational needs of the learner, interest of the learner to come up with the DLS and correct methods of teaching for a particular learner with MR.

**Table 4.8 Teaching Methods Identified by the Teachers**

<b>Teachers</b>		
<b>Item</b>	<b>Frequency</b>	<b>Percentage</b>
Modeling	03	15
Question/answer	01	05
Story telling	01	05
Demonstration	03	15
Explanation	02	10
Discussion	03	15
Practical	02	10
Role play	01	05
Peer tutoring	02	10
Look and say	02	10
	<b>20</b>	<b>100</b>

On the other hand, 15% of teacher respondents in Table 4.8 cited modeling and another 15% mentioned demonstration. Peer tutoring was mentioned twice (10%) while role play was mentioned once (5%). Peer tutoring was perhaps mentioned by some teachers who were trained in the area of mental retardation. Modeling and Role

play are strategies used by trained teachers to enhance teaching methods. Other items mentioned as teaching methods were Question/answer, Storytelling, Explanation, Discussion, and Practical among others. The mention of the above methods indicated that most teachers did not know the correct methods for teaching DLS to learners with MR. This clearly showed that 100% of head teachers and 90% of teachers were not aware of the best teaching methods such as cooperative, interactive, direct instruction, peer tutoring and team teaching. Effective methods of teaching are crucial for learning of DLS. These findings agree with Kamuri (2005) who asserts that learners with MR require an environment which is well organized and a programme which is presented clearly and with abundant opportunities for success. However, most learners had not acquired DLS because 85% of teachers did not use correct methods of teaching. The lesson observation checklist also showed that majority of learners with MR could not do most of the DLS tested on.

### **4.3 Application of Teaching Methods**

The study sought to establish how teachers employed the teaching methods to teach DLS to learners with MR. Towards that end, both the head teachers and teachers in special units were required to tell the teaching strategies they used to enhance the teaching methods.

#### **4.3.1 Teaching Strategies Used to Enhance the Teaching Methods**

Table 4.9 shows teaching strategies cited by both head teachers and teachers which they use to enhance teaching methods.

**Table 4.9 Teaching Strategies Used to Enhance the Teaching Methods**

<b>Head teachers</b>		
<b>Item</b>	<b>Frequency</b>	<b>Percentage</b>
Not know	3	30
Rote learning	2	20
Field trips	1	10
sports	1	10
rewarding	1	10
repetition	1	10
modeling	1	10
<b>Total</b>	<b>10</b>	<b>100</b>

The findings in Table 4.9 indicated that 30% of the head teacher respondents did not know what the strategies were. Two (20%) of responses were rote learning, while other responses of 1 (10%) each were field trips, sports, modeling, repetition and rewarding respectively. Their inclusion of field trips, sports, and even 'do not know' (30%) indicated head teachers' ignorance of teaching strategies. It was also an indication of lack of training in the area of MR. The head teachers are supposed to be monitors and evaluators of curriculum implementation in their schools. Thus, they are expected to assess implementation in both regular and special units at the same time. If they did not understand the meaning of the word 'strategies' as the ways to enhance teaching of DLS, it depicted that they did not tell whether learners with MR were taught DLS or not.

**Table 4.10 Teaching Strategies for Enhancing Teaching Methods**

<b>Teachers</b>		
<b>Item</b>	<b>Frequency</b>	<b>Percentage</b>
Home visits	2	13
Group work	1	7
Reward	3	20
Rote learning	3	20
IEP	3	20
Use of teaching aids	2	13
Demonstration	1	7
	<b>15</b>	<b>100</b>

The study findings in Table 4.10 show that 20% of the teacher respondents mentioned IEP, 13% reward, rote learning, use of teaching aids while the other 13% mentioned home visits. This also showed that teachers did not understand the meaning of the word ‘strategies’ as ways of enhancing teaching methods. The findings in Table 4.10 further reveal that the teachers are not conversant with instructional methods that are critical in teaching pupils with MR, which could perhaps be due to lack of specialized knowledge and skills. This implies, then that learners with MR who are under their care may remain independent since they are unlikely to acquire necessary DLS that are essential in their daily living in the society.

No single teaching method for DLS can work alone, without teaching strategies. As Klein and Cook (2001) stresses, teaching strategies enhance and enrich teaching methods for learners with MR. That indicated that although teachers had been in the units for learners with MR for some time, they were not assisting learners much to

acquire DLS. No wonder in the lesson observation checklist, majority of the learners were not able to perform most of the basic DLS for independent living.

#### **4.3.2 Acquisition of DLS by learners with MR as shown by class observation checklist**

The study inquired from both the head teachers and teachers if the learners acquired DLS when correct methods were used. 100% of both head teachers and teachers said yes. Teachers believed that learners with MR would acquire DLS if in addition of being trained; they would have the knowledge of teaching methods, strategies as well as teaching/learning materials. The findings suggests that head teachers and teachers are quite aware that learners with MR have the potential to acquire DLS; which, implies that teachers are aware though they lack instructional capacity and competence, MR if handled by specialists, can achieve better, in terms of their potential and perhaps improve the degree of effects of their challenges in DLS.

Table 4.11 showed the current situation in the special units in Kasarani District.

**Table 4.11 Acquisition of DLS by Class-Observation Checklist**

Skills	Able		Unable	
	Freq	%	Freq	%
<b>PERSONAL CARE</b>				
Identification of body parts	25	39	39	61
Shoe lacing	5	8	59	92
Brushing teeth	17	27	47	73
<b>FEEDING</b>				
Identify plate, spoon, cup, fork	23	36	41	64
Name different foods they eat at home	18	28	46	72
<b>KITCHEN UTENSILS</b>				
Clean plate, cup, serving spoon, sufuria	19	30	45	70
<b>MONEY</b>				
Differentiate 10 shilling coin from 20 shilling coin				
50 shilling note from 100 shilling note	9	14	55	86
Tell prices of common items like salt, milk and bread	10	16	54	84
	10	16	54	84
<b>SOCIAL AND COMMUNICATION SKILLS</b>				
Tell names of classmates	22	34	42	66
Tell name of the teacher	23	36	41	64
<b>TIME MANAGEMENT</b>				
Sequence days of the week (Mon-Sun)	9	14	55	86
Name the five school days	9	14	55	86

From Table 4.11, under personal care, 92% of the learners could not tie their own shoes while 73% of learners could not perform such basic DLS as brushing of teeth independently. Under feeding, 72% could not name even the food they eat while a whopping 64% could not tell the name their teacher. The findings suggest that learners with MR did not acquire DLS as ought to be when taught by teachers who lack special knowledge in MR; which, implied that teachers in the units did not have the specialized capacity and ability to train them to acquire basic and ideal DLS such as shoe lacing and brushing teeth. Moreover, it also strongly reveals that teachers use a lot of theory and very abstract teaching methods which are not only inappropriate

for learners with MR, but cause more harm since they devoid of practical skills to enhance learning of DLS.

However, the situation would be different where, in addition to knowledge of teaching methods and concrete learning materials, trained teachers, particularly in the area of mental retardation, would approach the art of teaching DLS critically and reflectively. The findings of this study agree with Arends (1994) who argues that trained teachers are innovative, open minded and creative. Further, the findings revealed that most teachers were not trained and therefore did not teach DLS effectively, hence, no or little acquisition of DLS took place. This made learners remain dependent on their care givers which is even likely to be the case throughout their lives.

#### 4.3.3 Progress Records for Acquisition of DLS by Learners with MR

The study enquired whether teachers kept any progress records to show acquisition of DLS by learners with MR. The response was 100% yes. They were further asked to list the records they keep to show progress in acquisition of DLS. The findings are tabulated in Table 4.12.

**Table 4.12 Records to show progress made in acquisition of DLS by frequencies and percentages**

Head teachers			Teachers		
Item	Freq	%	Item	Freq	%
Written work	1	10	Progress record	3	21
Observation	4	40	IEP	2	14
Report by teachers	2	20	Pupils work	3	21
Progress record	1	10	termly reports	4	29
Exam results	2	20	Schemes of work	2	14
<b>Total</b>	<b>10</b>	<b>100</b>		<b>14</b>	<b>100</b>

From the Table 4.12, 40% of the responses by head teacher respondents indicated that they used observation to tell the skills acquired. Twenty percent of other head teachers mentioned report given by special class teachers while still another 20% said they used exam results. Ten percent (10) of the head teachers gave exam results and pupils written work as records to show progress in acquisition of DLS. On the other hand, 29% of the teachers mentioned termly reports, 21% mentioned progress records, 21% mentioned pupils work while 14% mentioned IEP and another 14% mentioned schemes of work. The findings revealed that there was gross lack of technical skills and knowledge on records kept among head teachers and teachers. None of them could specify any details or particular aspects of skills that they observed to clearly determine and identify whatever skills they claimed to observe in learners with MR.

Further, they had no detailed observational sheets showing whatever skills they claimed to observe apart from just 'saying they used observation'. It was also notable that head teachers who by virtue of appointment as educational managers, are supposed to be in charge of ensuring quality education is maintained in teaching and learning process. However, they instead relied on teachers to inform them about actual teaching. This is quite serious as it is not only a clear indication of lack of knowledge of the way learners with MR learn, but also gross failure in supervision of curriculum interpretation and eventual implementation. Nevertheless, since the head teachers and majority of teachers were not trained, they did not know how learners with MR were taught or even assessed. Some teachers alleged to have long experience in the units, which could not be translated into actual and effective performance through quality skilful teaching because the learners under their custody grossly failed



to perform even the basic DLS skills such as shoe-lacing. That was an indication that teachers were lacking the basics of teaching. Interestingly, the findings brought forth by class observation on acquisition of DLS indicated that 80% of the learners were not able to perform DLS skills

These findings agree with Kaur (2005), that teachers who lack 'integrity' of the teaching profession may not offer much to cause change in their learners. It therefore follows that learners' performance remained low and no proper records are kept to show progress

#### **4.4 Challenges Experienced by Teachers when Teaching DLS to Learners with MR**

The study sought to determine the challenges experienced by teachers while teaching DLS to learners with MR. To achieve that, both the head teachers and teachers were asked to list the problems they experienced. Their responses were tabulated in Table 4.13.

**Table 4.13 Challenges Experienced in Teaching DLS by Headteachers and teachers**

Head teachers			Teachers		
Challenges	Fre q	%	Challenges	Fre q	%
Lack of materials	7	46	Lack of materials	5	25
High enrolment	1	7	forgetting	3	15
Space/room	2	13	Unsupportive parents	1	5
Unsupportive parents	1	7	Clumsiness	2	10
Poor memory	3	20	Lack of space	2	10
Lack of funds	1	7	Absenteeism	3	15
			Untrained Staff	4	20
<b>Total</b>	<b>15</b>	<b>100</b>		<b>20</b>	<b>100</b>

The results indicated that among the challenges encountered while teaching DLS were lack of materials, which is 46% as indicated by head teachers and 25% as indicated by teacher respondents. Twenty percent of the head teachers mentioned poor memory, 13% mentioned space while other 7% mentioned high enrolment, unsupportive parents and funds respectively. In addition to lack of materials, teachers also mentioned lack of training (20%), forgetting (15%), absenteeism (15%), clumsiness, space (20%) and unsupportive parents (5%).

The findings suggest that head teachers and teachers in the study locale did not have capacity or the resources/abilities to teach, manage and even organize learners with MR to benefit from education. Further, the findings reveal that the critical challenges facing head teacher and teachers was lack of capacity to specifically cater for learners with MR. This is manifested through their clear revelation that they lacked training, knowhow and valuable improvisational skills to come up with teaching and learning

materials that could be used to teach learners with MR. In addition, the findings revealed head teachers and teachers lack organizational competence and positive attitude which are exemplary in effective and sustainable teaching and learning process among learners with MR. These glaring technical inadequacies among the teaching personnel have gross ramifications to acquisition of DLS by learners with MR. The preceding findings are supported by UN report (2003) which noted that the NARC Government faced a challenge of educating its children especially those with disabilities, and specifically, learners with MR.

Lack of materials, untrained teaching staff, poor memory, absenteeism and forgetting were among the major challenges. The mention of poor memory (low cognitive ability) and clumsiness was an indication that both head teachers and teachers lacked knowledge of characteristics of learners with MR. Lack of space made learners with MR to be integrated in regular classes without any assistance. Such learners were not taught DLS, which are a core to independent living. Trained teachers are critical in teaching of DLS. A trained teacher understands his/her learners' needs, abilities and interests, and is therefore able to choose the right activities, methods, strategies and materials for his/her learners. Untrained staff would not do as explained; hence most learners did not acquire DLS for independent living.

Concrete materials are critical in the learning of learners with MR. Since they experience challenges in imagination and memory, concrete materials would help in concept formation. Therefore insufficient materials indicated that learners were not taught DLS effectively. Lack of classroom was an indication that learners in such

environments lacked chance to interact with others and materials properly. That limited their learning of DLS since it involves interaction with materials in the environment. The mention of poor memory and clumsiness showed clearly that both the head teachers and teachers lacked knowledge of characteristics of learners with MR. That was an indication that it was a challenge to teach DLS to learners with MR.

#### **4.5 Teaching/Learning Materials to Augment Teaching Methods**

##### **4.5.1 Provision and Use of Teaching/Learning Materials**

The teachers in the units were required to tell whether they used teaching/learning materials to teach DLS. Interestingly, all the teacher respondents (100%) admitted that they used teaching/learning materials. The Head teachers were also required to tell whether they provided teaching/learning materials to for DLS. All head teacher (100%) respondents agreed that they provided T/L materials for DLS. However, this was not the case as during class observation, virtually; no single unit had concrete materials for teaching DLS. Only two units out of six had charts, which are not important as far as teaching of DLS was concerned.

The study required the head teachers to list the materials they provided to their teachers, while the teachers were required to list the teaching/learning materials they used to teach DLS. The responses from both the head teachers and the teachers were tabulated in Table 4.14

**Table 4.14 Provision and use of Teaching/Learning Materials by frequency and percentages**

Head teachers			Teachers		
Teaching and learning materials provided	Freq	%	Teaching and learning materials used	Freq	%
Charts (manila)	4	14	Cleaning items	4	29
Brooms	5	18	Kitchen utensils	2	14
Sawing machines	1	4	Charts	2	14
Salon equipment	1	4	Bathing items	6	43
Bathing materials	7	24			
Play equipments	5	18			
Stationary	4	14			
Farm tools	1	4			
<b>Total</b>	<b>28</b>	<b>100</b>		<b>14</b>	<b>100</b>

The findings in Table 4.14 show that 24% of head teacher respondents provided bathing materials to their teachers. These may include things such as basins and soap. 18% of materials provided were brooms and play items. Forty three percent (43%) of teacher respondents said they used bathing items to teach DLS. 29% of teachers also mentioned cleaning items and 14% used kitchen utensils.

Most of the materials for teaching DLS such as dressing, toileting, leisure time, money, shoe lacing and work skills were left out. Since 43% mentioned bathing materials, 29% cleaning items, 14% kitchen utensils and another 14% manila charts, it meant that 100% of teachers were not aware of all the DLS necessary for independent living. Without such important knowledge, then it implied that those teachers cannot prepare learners with MR for independent living. Such scenario was attributed by lack

of training in SNE. Friend (2008) asserts that concrete materials are vital for concept formation. The teachers did not know about other important areas to train learners in, so as to prepare them for independent living (MoE, 2009). That meant functional curriculum was not implemented fully, which then left learners to continue depending on other people, hence dependent.

#### 4.5.2 Challenges Experienced in Provision of Teaching/Learning Materials

The head teachers' responses on the problems they experienced in provision of teaching/learning materials were tabulated in Table 4.15.

**Table 4.15 Challenges Experienced in Providing Teaching and Learning Materials**

Head teachers		
Problems encountered	Frequency	Percentage
funds	6	43
knowledge of materials	5	36
spacious classrooms	2	14
farm tools	1	07
<b>Total</b>	<b>14</b>	<b>100</b>

The findings in table 4.15 indicated that (43%) head teachers mentioned lack of funds to buy teaching/learning materials for teaching DLS. Another 36% said that even with money, they did not know the relevant teaching/materials for DLS. Fourteen percent complained of lacking space. The space in class was so small that teaching and learning materials could not be flaunted in class even if there were. Seven percent of the respondents reported that they only need farm tools of which they did not get. The findings of this study indicated that there was a general problem in the provision of

teaching and learning materials for teaching DLS to learners with MR. In addition, lack of knowledge of the types of teaching/learning materials that are required for effective teaching and learning of pupils with MR, clearly demonstrates that even the little funds available may not be used to acquire relevant material to be used to teach children with MR; a very worrying state of affairs, since lack of financial ability and knowledge are a lethal combination in teaching and learning process among not only learners with MR , but the entire SNE in general. The findings are in total congruence with a report by the ministry of education (2001), which asserts that most units lack adequate and appropriate teaching and learning materials.

#### **4.5.3 Role Played by Teaching/Learning Materials in Teaching DLS**

The study sought to find out from the teachers the role teaching and learning materials played in teaching DLS to learners with MR. The responses are presented in Table 4.16.

**Table 4.16: Importance of Teaching / Learning Materials in the Acquisition of DLS.**

<b>Teachers</b>		
<b>Role of T/L Materials</b>	<b>Frequency</b>	<b>Percentage</b>
Enhance learning	2	12
Making Teaching to be real	5	32
Helps them to remember	2	12
Help them visualize activities	1	06
Teach new concept	3	19
Associate material and skill	3	19
<b>Total</b>	<b>16</b>	<b>100</b>

The findings in Table 4.16 reveal that 32% of teacher respondents felt that use of teaching/learning materials helped to make teaching real. Nineteen percent (19%) of teacher respondents said that teaching/learning materials made learners able to

associate material with the skill taught and also learn new concept. Twelve percent (12%) of other teachers felt that teaching/learning materials enhanced learning and also helped the learners to remember the skills learnt previously. Others (6%) still felt that teaching/learning materials were important as they helped learners to associate a specific material and a skill being taught. The findings revealed that teachers possess just the knowledge about importance of teaching/learning materials in teaching DLS. Though the teachers are able to tell the importance of teaching/learning materials, they lack the basic knowledge about selection, adaptation and effective use of teaching/learning materials for learners with MR, which should be guided by the age, ability level of the learner, educational needs, interest of learners, activity to be done and objective of the activity. 78% of Teachers in the units lack this information because they are not trained in the area of MR. Knowing the importance of teaching/learning materials does not translate to using them effectively to assist the learners to acquire DLS. This therefore affects directly the effectiveness of teaching methods in implementing DLS to learners with MR.



## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.0 Introduction**

This chapter is a summary of the study findings, conclusions and recommendations. The study was to find out the effectiveness of teaching methods on the acquisition of daily living skills by learners with mental retardation in the units in primary schools in Kasarani district, Nairobi County.

#### **5.1 Summary of the Research Findings**

Research findings were summarized according to the objectives of the study, and the themes discussed in chapter four.

Objective one sought to identify the teaching methods used by teachers when teaching DLS to learners with MR. The findings revealed that 100% of the head teachers and 90% of the teachers were not aware of the right methods to use for teaching DLS to learners with MR. Both head teachers and teachers lacked knowledge of basic DLS skills to be imparted to learners with MR.

Objective two sought to establish how teachers employed teaching methods when teaching DLS. The findings revealed that 90% of teachers and 100% of head teachers did not differentiate between teaching methods and teaching strategies. To some teachers and head teachers, teaching methods and teaching strategies are the same. When asked the methods they used to teach DLS, they mentioned approaches such as question and answer, storytelling, look and say, explanation and discussion among

others. Such approaches are meant for learners without MR, and specifically, regular pupils. This showed that they used difficult methods to teach DLS to learners with MR. Lack of knowledge of the correct methods and strategies of teaching learners with MR, meant that learners with MR were not taught DLS effectively. During class observation, it was noted that learners with MR were not able to perform DLS satisfactorily. For instance 92% could not tie their shoes, 70% could not wash utensils, 86% could not differentiate 10 shilling coins from 20 shilling coin, 66% could not remember names of their classmates, 86% could neither sequence days of the week nor name the five school days. That kind of situation was true in almost all the special units for learners with MR. That led to poor performance in DLS in the six special units in the area of study.

Objective three sought to find out the challenges experienced by teachers while teaching DLS. The study findings indicated that lack of teaching materials ranked first. This must have had an impact in the teaching of DLS. Lack of materials, untrained teaching staff, poor memory, absenteeism and forgetting were among the major challenges. The mention of poor memory (low cognitive ability) and clumsiness was an indication that both head teachers and teachers lacked knowledge of characteristics of learners with MR. Lack of space made learners with MR to be integrated in regular classes without any assistance. Such learners were not taught DLS, which are a core to independent living. Due to the above challenges, learners with MR in the units did not acquire DLS for independent living.

Objective four sought to identify teaching/learning materials used in teaching DLS to learners with MR. The findings revealed that teachers and head teachers were not able to name and identify appropriate materials for DLS. They were also not able to provide materials which learners could touch, feel, see and even play with. Lack of such materials made learners with MR remain dependent to their caretakers.

## **5.2 Conclusions**

The conclusions of this study were made according to the objectives and the findings of the study. The first objective sought to find out the teaching methods used by teachers to teach DLS to learners with MR. The findings were that all (100%) of head teachers and 90% of the teachers were not aware of the correct methods of teaching. This implied that learners in the units were not taught DLS effectively, hence little or no acquisition of DLS by the learners. The result was that the learners in the units remained dependent as they could not perform most of the DLS for themselves for independent living.

Objective two was to establish how teachers employed the teaching methods when teaching DLS. The findings were that teachers did not implement the skills correctly because they lacked knowledge of the correct method and the right strategies to use, to teach DLS. The strategies are critical as they enhance the teaching methods. Klein and Cook (2001) assert that no single teaching method for DLS can work alone, without teaching strategies. They argued that teaching strategies enhance and enrich teaching methods for learners with MR. That showed that although teachers had been in the units for learners with MR for some time, they were not assisting learners much

to acquire DLS. The lesson observation checklists showed that majority of the learners were not able to perform most of the basic DLS for independent living.

The third objective was to determine the challenges teachers experience when teaching DLS to learners with MR. The study findings indicated that there was lack of teaching materials. Lack of materials, presence of untrained teaching staff, absenteeism and lack of classrooms were among the major challenges. Lack of classroom in some units made learners with MR to be integrated in regular classes without any assistance. Such learners were not taught DLS, which are a core to independent living. Due to the above challenges, learners with MR in the units did not acquire sufficient DLS for independent living.

Objective four sought to identify teaching/learning materials used in teaching DLS to learners with MR. The teaching/learning materials provided by head teachers and teachers were not appropriate for DLS. Therefore learners with MR did not acquire adequate DLS for independent living.

### **5.3 Recommendations**

Based on the findings, the following are the recommendations that need both short and long term implementation.

- Schools with special units should be headed by teachers who are trained in mental retardation and have knowledge and skills, and also have learners with MR at heart. Such head teachers would advice their special unit teachers on the correct methods while considering learners abilities and interests in teaching DLS.

- TSC should post specialist teachers to the units for learners with MR. These are teachers who can prepare and apply IEP effectively, and use the correct teaching methods and strategies to ensure learner's acquisition of DLS for independent living.
- The government to provide enough funds for purchase of materials and construction of enough classrooms, creation of awareness and advocacy on abilities of learners with MR if they have acquired DLS.
- Lobby for parental support to ensure continued training of DLS at home.
- Government provides enough funds to buy such concrete materials.

#### **5.4 Suggestions for Further research**

It is suggested that the following areas be researched.

- Social economic factors that hinder acquisition of daily living skills for learners with mental retardation
- Investigate government's involvement to effect successful transition from school to the society of learners with mental retardation.

## REFERENCES

- Arends, R.I. (1994). *Learning to Teach: International Edition*. (3<sup>rd</sup> Ed) USA. McGraw- Hill, Inc.
- Brennan, W. K. (1987). *Changing Special Education Now: Children with Special Needs*. USA. Open University Press.
- Cannella-Malone, H. I., Fleming, C., Yi-Cheih, C., Geoffrey, M. W., Abby, R. B., & Angella, H. S. (July, 2011). *Teaching Daily living Skills to seven Individuals with severe intellectual disabilities: A comparison of video prompting to video modeling*. *Journal of positive Behavior Interventions*, v13 n3 p144-153
- Creswell, J. W. (2003). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (2<sup>nd</sup> Ed). USA: Sage Publications Ltd.
- Creswell, J. W. (2005). *Educational Research Planning, Conducting and Evaluating Quantitative and Qualitative Research* (2<sup>nd</sup> Ed). Ohio: Prentice Hall.
- Frankel, R. J, & Wallen, E. N. (2003). *How to design and evaluate research in education* (5<sup>th</sup> Ed) 1221 Avenue of Americas New York, NY. 10020: McGraw-Hill Inc.
- Friend, M. (2008). *Special Education Contemporary Perspectives for School Professionals*. (2<sup>nd</sup> Ed). USA: Pearson Education Inc. Company.
- Gage, N. L. (1984). *Educational Psychology*. (4<sup>th</sup>Ed). Boston: Houghton Mifflin.
- Gargiulo, M. J. (2006). *Special Education in Contemporary Society: An Introduction*
- Gay, L. R. & Ansian, P. (2003). *Educational research: Competencies for analysis and application* (7<sup>th</sup> ed.). Upper Saddle River, NJ. Merrill/Prentice Hall.

- Government of Kenya (2005). *Ministry of Education, Science and Technology Sessional Paper No. 1 of 2005 on a Policy Framework for education, Training and Research*. Nairobi: Government Printer
- to Exceptionality*. Belmont. Thompson learning Inc.
- Heward, W. L. (2006). *Exceptional children: An Introduction to Special*. (8<sup>th</sup> Ed). New Jersey: Pearson Education, Inc.
- Heward, W. L. (2006). *Characteristics of children with Mental Retardation*. Retrieved from <http://www.education.com/reference/article/characteristics-children-mental-retardation>. Retrieved 25th July 2011
- Kaur, R. (2005). *Special Education: New Trends and Innovations*. New Delhi; Deep & Deep Publications PVT. LTD.
- Kamuri, B. P. (2005). *Factors Affecting Implementation of Inclusive Education for Children with Special needs in Primary schools*. Thesis. Kenyatta University
- Kenya National Census, (2009). *Kenya national survey for persons with disabilities*. Nairobi: Government of Kenya
- Kenya Society for the Mentally Handicapped (KSMH), (2010). *A Report on HIV/AIDS Intervention Programme and Rights for the Persons with Intellectual Disabilities on 19<sup>th</sup> January, 2010*.
- Khalifan, H. K. (2002). *Organization of people with Disabilities Zanzibar*. Report No. 02-09.
- Kirk, S. A. & Gallagher, J. J. (1989). *Educating Exceptional Children*. 4<sup>th</sup> Ed. Boston Houghton :Mifflin Company.
- Klein, M. D. & Cook, R. E. (2001). *Strategies for Including Children with Special Needs in Early Childhood Settings*. U.S. Delmar Thomson Learning.

- Koech, D. (1999). *Report of the commission of inquiry into the education system of Kenya: Totally Integrated quality education and Training*. Nairobi, Government Printers.
- Kombo, K. D. & Tromp, D. L. A. (2006). *Proposal and Thesis Writing: An Introduction*. Nairobi: Paulines Publications Africa.
- Lombardi, P. (25<sup>th</sup> Feb, 2011). *Special Education Resources*. Retrieved from: <http://www.paulabliss.com/lifeskills,hfm> Retrieved 27<sup>th</sup> Oct. 2011
- Mays, N. M., Nicole, M., & Heflin, L. J. (2011). *Research in Autism Spectrum Disorder* v.5 n4 P1351-1357.
- McMary, S. & Sarah J. (2005). *What successful teachers do in inclusive classrooms: Research based teaching strategies that help special learners succeed*. California:Corwin Press.
- Ministry of Education, (2009). *Activities of Daily Living Skills Syllabus for Learners with Mental Handicap*. Nairobi: Kenya Institute of Education.
- Ministry of Education, (2009). *Special Needs Education Policy*. Nairobi, Government of Kenya.
- Ministry Of Education, (2001). *Special Needs Education Support Project (SNESP) Module 2: A Guide for teaching Learners with mental retardation (1<sup>st</sup> Draft)* Voluntary Service Overseas (VSO) in Conjunction with MoE.
- Mortweet, S. L., Cheryl, A. Walker, D., Dawson, H. L., Delquadn, J. C., Hamilton, S. & Ledford, D. (1999). *Classwide Peer Tutoring: Teaching Students with mild Mental Retardation in inclusive Classrooms*. Retrieved from <http://www.questia.com/googleScholar.qst?doc.id=5001272311>



- National Action Plan on Education For All 2003-2015. (Not Dated). *From Commitment to Action: Expanding Opportunities for Quality Education to all Kenyans*. Nairobi: Ministry of Education, Science and Technology.
- Ndurumo, M.M. (1993). *Exceptional Children: Developmental Consequences and Interventions*. Nairobi: Longman Kenya Ltd.
- Okoko, J. M. (1998). *“Implementation of physical education to the mentally challenged. Constraints encountered by teachers in Nairobi”* M.ED. Thesis, Kenyatta University.
- Orodho, A.J. (2008). *Techniques of Writing Research Proposals & Reports in Education and Social Sciences*. Maseno, Kenya:Kenezja HP Enterprises.
- Orodho, A. J. (2009). *Elements of education & social science research methods* (2<sup>nd</sup> Ed.) Maseno, Kenya: Kenezja publisher.
- Pierangelo, R. & Giuliani, G. (2008). *A step by step Guide for Educators Teaching Students with Autism Spectrum Disorders*. USA: Corwin Press
- Pierce, K. L. & Schreibman, L. (1994). *Teaching Daily Living Skills to children with Autism in unsupervised settings through pictorial self management. A Journal of Applied Behavior Analysis*, v27 p471-481. San Diego, University of California.
- Reynolds, T. & Zupanic C. E. (Updated may, 2011). Applied Behaviour Analysis and Intellectual Disabilities. Retrieved from <http://www.mentalhelp.net/poc/view-doc.php?type=doc&id=10366&cn=208>
- Republic of Kenya. (2001). *Special Needs Education Support Project: Module 2. A Guide for Teaching Learners with Mental Handicap* (1<sup>st</sup> Draft). Nairobi. Ministry of Education.

- Republic Of Kenya (2009). *Kenya Population and Housing Census (vol ii): Population and Household Distribution by socio-economic characteristics*. Nairobi: Kenya National Bureau of Statistics (KNBS).
- T.S.C. (2011). *Educational Management Information Systems (EMIS)*. Nairobi.
- Turnbull, A.; Turnbull, R.; & Wehmeyer, M. (2007). *Exceptional Lives: Special Education in Today's Schools*, (5<sup>th</sup> Ed). New Jersey, Pearson Merrill Prentice Hall.
- U.N. (2003). *Millennium development goals progress report for Kenya*, Published by G.o.K. Nairobi, Kenya. (pp. 13-14).

## **APPENDICES**

### **APPENDIX ONE**

#### **HEADTEACHERS INTERVIEW GUIDE**

The purpose of this study is to establish the effectiveness of teaching methods on acquisition of daily living skills by learners with mental retardation. I will highly appreciate your patience, and time spent in answering the following questions. The information you give will enhance acquisition of daily-living skills by learners with mental retardation. It will be treated as confidential and will only be used for this study.

#### **Section A: General Information**

1. Name of the school \_\_\_\_\_
2. In which year was the school established/registered? \_\_\_\_\_
3. Number of teachers trained in the area of mental retardations \_\_\_\_\_
4. Number of teachers handling learners in the special unit \_\_\_\_\_
5. Number of pupils in the special unit for learners with mental retardation \_\_\_\_\_

#### **Section B: Identification of Teaching Methods**

6. What are some of the skills do your teachers teach learners to prepare them for independent living? \_\_\_\_\_
7. What teaching methods do your teachers in special class employ to teach daily living skills to learners with MR? \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.

#### **Section C: Application of Teaching Methods**

8. What teaching strategies do your teachers use to enhance the teaching methods used in teaching daily living skills? \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

9. According to you, do learners acquire daily living skills? Yes. [ ] No [ ]

If yes, what records do you keep to show the progress of the skills learnt?

**Section D: Challenges Experienced in Teaching DLS**

10. What challenges do the teachers face when teaching daily living skills to learners with mental retardation? \_\_\_\_\_

**SECTION E: Teaching/Learning Materials**

11. Does your school provide teachers with teaching and learning materials? (Yes) (No). If yes, list the materials provided. \_\_\_\_\_

12. What problems have you been experiencing in relation to provision of the teaching and learning materials for daily-living skills? \_\_\_\_\_.

**APPENDIX TWO**  
**TEACHER QUESTIONNAIRE**

The purpose of this study is to establish the effectiveness of teaching methods on acquisition of daily living skills by learners with mental retardation. I will highly appreciate your patience, and time spent in answering the questions. The information you give will be treated in confidence and will only be used for this study.

**SECTION A: Personal and General Information**

1. Name of the school \_\_\_\_\_ Date \_\_\_\_\_
2. Your professional grade. P1 ( ) S1 ( ) Diploma ATS ( ) B.ED ( ). Other (specify \_\_\_\_\_)
3. Area of specialization \_\_\_\_\_
4. Teaching experience in the unit for learners with mental retardation. Below 1 ( ), 2-5 ( ), 6-10 ( ), 11-15 ( ), 16-20 ( ), Above 20 ( ).

**SECTION B: Identification of Teaching Methods**

5. Do you teach daily living skills? Yes [ ] No [ ]

List some of the skills you teach to your learners. \_\_\_\_\_.

6. List the teaching methods you employ to teach daily living skills to learners with mental retardation \_\_\_\_\_

**Section C: Application of Teaching Methods**

7. What teaching strategies do you use to enhance teaching methods for daily living skills? \_\_\_\_\_

8. Do learners acquire DLS when teaching strategies are used? Yes [ ] No [ ]

If yes, what records do you keep to show progress?

**Section D: Challenges Experienced in Teaching DLS**

9. Are there problems that may hinder acquisition of DLS by learners with MR? Yes [ ] No [ ]

If yes, list the challenges you encounter\_\_\_\_\_.

**SECTION E: Teaching/ Learning Materials**

10. Do you use teaching and learning materials when teaching DLS? Yes [ ] No [ ]

If yes, list some of the teaching/learning materials you use?

11. What problems do you experience in relation to usage of teaching/learning materials?

12. Why do you use teaching/learning materials when teaching DLS to learners with MR?

### APPENDIX THREE

#### LESSON OBSERVATION CHECKLIST

(To be filled by the researcher while observing the lessons proceeding.)

##### SECTION A: General Information

School \_\_\_\_\_ Date \_\_\_\_\_

Name of Learner \_\_\_\_\_

Age of Learner \_\_\_\_\_

Date of admission in the Unit \_\_\_\_\_

Duration in the unit \_\_\_\_\_

##### SECTION B: Class Observation Checklist of DLS

<b>Personal Care</b>	<b>Able</b>	<b>Not Able</b>
<ul style="list-style-type: none"> <li>▪ buttoning, unbuttoning, zipping</li> <li>▪ brushing teeth</li> <li>▪ Washing hands</li> <li>▪ Oiling and combing the hair</li> <li>▪ Use handkerchief correctly</li> </ul>		
<p><b>Feeding</b></p> <ul style="list-style-type: none"> <li>▪ identify plate, spoon</li> <li>▪ tell their uses</li> <li>▪ name different types of fruits</li> </ul>		
<p><b>Social and communication skills</b></p> <ul style="list-style-type: none"> <li>▪ name friends in the class</li> <li>▪ tell the name of the teacher</li> <li>▪ name different types of food</li> <li>▪ name sources of food</li> </ul>		
<p><b>Time management</b></p> <ul style="list-style-type: none"> <li>▪ name days of the week</li> <li>▪ name some activities they do at home</li> </ul>		