FACTORS AFFECTING ACQUISITION OF ADAPTIVE BEHAVIOR SKILLS AMONG LEARNERS WITH INTELLECTUAL DISABILITIES IN SELECTED PRIMARY SPECIAL SCHOOLS AND UNITS IN THIKA SUBCOUNTY, KIAMBU COUNTY, KENYA

BY

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NOVEMBER, 2017

DECLARATION

DECLARATION

I confirm that this thesis is my original work and has not been presented in any other university/institution for consideration. The thesis has been complemented by referenced sources duly acknowledged. Where text (including spoken words), data, graphics, pictures, or tables have been borrowed from other works, including the internet, the sources are specifically accredited through referencing in accordance with anti-plagiarism regulations.

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DEDICATION

This work is dedicated to my wife Alice and our children Esther, Joy and Patrick for their support and to God for having given me the physical and mental strength to undertake and complete this project.

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I am grateful to my university supervisors Prof. Geoffrey Karugu and Dr. Jessina Muthee and the entire Special Needs Education Department of Kenyatta University, for guiding me on how to write this thesis. I would also like to thank my wife Alice Wambui, my children Esther Wanjiru, Joy Wanjiku and Patrick Mungai. Special thanks go to the head teachers of St. Maria Magdalena Special School, St. Patrick Special School, Kenyatta Primary Special Unit and Kimuchu Primary School Special Unit and their entire staff members for their cordial assistance. Above all, I thank God, the Almighty, without whom all this work would not have been possible. Glory is to Him forever.

ABBREVIATIONS AND ACRONYMS

AAMD	-	American Association on Mental Deficiency
APA	-	American Psychological Association
DLS	-	Daily Living Skills
EARC	-	Education Assessment and Resource Centre
EARS	-	Education Assessment and Resource Services
ID	-	Intellectual Disabilities
IDEA	-	Individuals with Disabilities Education Act
IEP	-	Individual Education Program
KISE	-	Kenya Institute of Special Education
MOE	-	Ministry of Education
PWD	-	People with Disabilities
SNE	-	Special Needs Education

ABSTRACT

The purpose of this study was to investigate the factors affecting acquisition of adaptive behavior skills among learners with intellectual disabilities in selected primary special schools and units in Thika Sub-County, Kiambu, Kenya. Learners with intellectual disability have a low IQ (below 70) and cannot cope with the regular curriculum. They need a specialized curriculum that includes skills meant to help them cope with day to day activities. However, teaching of these skills is faced by many challenges like inadequate curriculum content, lack of teaching/learning resources, teacher factors like negative attitude and pupil factors like absenteeism. Therefore many of these learners do not acquire adaptive skills in schools. The study was guided by four objectives which were; investigate curriculum used for learners with intellectual disabilities in Thika Sub County, explore teaching resources used for learners with intellectual disabilities, identify teacher factors and strategies put in place to enhance acquisition of adaptive behavior skills, establish learner factors affecting teaching of adaptive behavior skills to learners with intellectual disabilities. The study was carried out in Thika Special School for the intellectually disabled, Kenyatta Primary Special Unit and Kimuchu Primary Special Unit. The target population was 399 pupils, 52 teachers, and 3 head teachers, making a total of 454 subjects. The researcher used purposive and random sampling to select a sample of 36 pupils and 10 teachers for the study. The study adopted descriptive survey design involving both qualitative and quantitative design. The pilot study was carried out in St Maria Magdalene Special School in Thika. Questionnaires, observation checklists and interview schedules were used to collect data. Content validity of the study instruments was ensured through the judgment of the researcher's supervisors. Karl Pearson's method of correlation was used check reliability of study instruments. The reliability coefficient of 0.75 for questionnaire and 0.78 for observation checklists was realized. Quantitative data was analyzed using graphs, tables and narrative paragraphs. The qualitative data was analyzed by coding responses to the interviews and observation according to emerging themes, feeding into SPSS Program and reporting the findings according to the objectives. The study revealed that there was inadequate content in the present curriculum for learners with intellectual disabilities since some important specifications were missing leading to less emphasis on teaching important adaptive behavior skills. The learning/teaching resources for important teaching activities like games training were missing. Teacher factors like poor teaching methods and poor teaching strategies were found to affect acquisition of adaptive behavior skills negatively. Pupil factors like severity and age of the learner leading to absenteeism and inability to handle tasks required were also found to be affecting acquisition of adaptive behavior skills. Hence, the study concluded that there was ineffective teaching of adaptive behavior skills in most of the units and special schools leading to poor acquisition of adaptive behavior skills. The study recommended that the EARC coordinator should make sure that adaptive behavior skills are taught and proper teaching methods and strategies used to enhance acquisition of adaptive behavior skills. It also recommended that trained teachers should be posted to head special schools and units for learners with intellectual disabilities. Specialist teachers should be posted to teach learners with intellectual disabilities. The Ministry of education should make sure that learning/teaching materials are adequate in these schools. KICD should revise the present curriculum and put more emphasis on teaching of adaptive behavior skills in special units and special schools for learners with intellectual disabilities.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

The aim of the study was to investigate factors affecting acquisition of adaptive behavior skills among learners with intellectual disabilities in selected special primary schools and units in Thika Sub County, Kiambu County, Kenya. This chapter entails the background of the study, statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, limitations and delimitations of the study, assumptions of the study, theoretical and conceptual framework based on the study, and operation definitions as used in the study in relation to learners with ID.

1.1 Background of the study

Intellectual Disability (ID) is the newest term which is used in place of the term mental retardation and it is one of the most common disabilities. Braddock and Parris (2002) have defined disability as socially determined interpretation of impairment by others. Thus the whole concept of ID and how to define it or categorize people with ID (PWID) has been affected by how people in different cultures and in different periods of time have defined it and understood it. American Association on Mental Retardation (2002) defines intellectual disability as a condition characterized by significant limitations in both intellectual functioning and in adaptive behavior as expressed in conceptual, social and practical adaptive skills and originates before age 18.

Children with intellectual disabilities have existed in all societies for a long time with their problems not being attended (Pilusa, 2006). The reason for this lack of concern has been due to the fact that members of most societies have tended to see persons with intellectual disabilities as economically handicapped (Rashid, 2012). People with intellectual disabilities have been seen by such societies as having little to contribute to the welfare of the society (Olson, 2003). United Nations Education Scientific and Cultural Organization (UNESCO, 1994) expressed the views that parents of the handicapped children tended to feel ashamed. Such children were therefore hidden away from the society.

Ndurumo (1963) classifies children with intellectual disabilities into three levels. These are Educable Intellectually Disabled (with IQ of 75-70 %), Trainable Intellectually Disabled (with IQ of 50-25 %) and Severe/Profound Intellectually Disabled (with IQ of below 25%).

The study concentrated on the first two levels, the educable intellectually disabled (also referred to as mild) and the trainable intellectually disabled (also referred to as moderate) for these two categories are the ones most likely to be found in special schools and units. However some few severe cases which are found in special schools were also included.

The earliest reference to intellectual disabilities dates back to Egyptian Papyrus of Thebes in 1552 B.C. (Harrison, 2006). The ancient Greeks and Romans felt that children with intellectual challenges were born because the gods had been angered. Often, children with severe intellectual disabilities would be allowed to die of exposure as infants rather than be permitted to grow up. However, the Romans did allow some protection to children who were born to the wealthy, by allowing some

property rights and allowing them to have guardians (Harrison, 2006). Before 18th Century, societies differed on how or whether they conceptualized intellectual disability. Those with mild ID who were socially competent received special identification or treatment, and those with more severe conditions probably received protective care from families or in monasteries. Some societies considered people with more severe intellectual disabilities to be capable of receiving divine revelation (Beirne & Kim, 2006; Harris 2006).

The first systematic and documented program of intervention of ID was developed in France in 1799. Jean Marc Itard, a medical doctor, developed a skill program for a feral child he named Victor. Victor was found in Aveyron Forest in 1800 and Itard adopted him and worked on him for five years. He developed a procedure to teach the boy to see if he could learn. Victor only learned the word 'lait' which means milk and 'oh Dieu' (oh God) but he had made progress in behavior towards other people (Heward, 2006).

According to Heward (2006), Jean Marc Itard showed that 'intensive systematic intervention' could produce significant gains in a learner thought to be incapable of learning.

Eduard Seguin took Itard's method further and established a systematic program to educate the 'feeble minded' at Salpetrieve Hospital in Paris. Seguin's program emphasized 'psychological and moral individualized instruction and behavior management' which are still practiced today. Seguin migrated to US and in 1866 published an influential reference book *'idiocacy and treatment in physiological methods'* which talks about treatment and training of people with intellectual

disability. Joham Guggenbuhl established the first known residential facility for PWID in 1841 in Switzerland.

In the early 1960S, President Kennedy of USA established the President's panel of Mental Retardation (now the President's committee on Intellectual Disabilities). In 1970s and 1980s, Legistration and Litigation, including 1973 reauthorization of Vocation Rehabilitation Act broadened the extent of services offered and mandated for people with intellectual disabilities (in USA). In 1974, the United Nations passed '*the standard rules of opportunities for persons with disabilities*', providing international standards for programs, policies and laws for those with disabilities. In the USA, the PL 94-142, which later changed to Individuals with Disabilities Education Act (IDEA, (1990)), supported the education of children with disabilities. A court ruling in North California (1969) played a major role in the education of children with intellectual disabilities by ruling against discrimination of such children. This formed the basis for search for methods of teaching children with intellectual disabilities (Kaur, 2005). Throughout the United States, special education programs are available for learners with intellectual disabilities (Makumi, 2010).

In Rome, Maria Montessori believed that people with intellectual disabilities were neglected. She taught the intellectually disabled of 3- 7 years cleanliness, manners, becoming acquainted with the environment and with plants and animals (Heward, 2006).

A recent study in Zimbabwe shows that there has been tendency to subject people with intellectual disabilities to inhumane practice. The society disregards their abilities let alone their psychological needs. Mapuranga and Nyakudzuka (2014) assert that people with intellectual disabilities are a powerless group that has been

culturally and economically victimized. This position has been perpetuated by attitudes of the society which gives rise to the perception of the intellectually disabled persons as a weak and semi-competent component of the society.

In Uganda, Asians took lead in the provision of education for children with intellectual disabilities. They established Victoria Nile Primary School in Jinja which catered for Asian children with intellectual disabilities. The service ceased after expulsion of Asians from Uganda in the early 1970s (Randiki, 2002).

Uganda Association for Mentally Handicapped was formed in 1983. This association in collaboration with Uganda Government established a number of units in regular schools across the country to cater for children with intellectual disabilities. These units were Government aided.

In Kenya, it was not until 1948 when the first step was made towards providing these individuals with education. This was with the establishment of St. Nicholas Special School, previously known as Jacaranda Special School. Other schools that started after Jacaranda were; Meru Special school, Embu Special School, Munyu Special School (St. Maria Magdalene), St. Catherine Butula, Lutheran, Kisii, and Equator Round Table among others (Task Force 2003). These schools were expected to offer programs that would help deliver services to individuals with intellectual disabilities and aimed at addressing difficulties they encounter in academic, social or behavioral requirements of general education; offering competence in employment or further education, community involvement, physical and emotional health, personal responsibility and interpersonal relationship (Macmillan, 1982).

Thika Sub-County has two primary special schools for learners with intellectual disabilities. These are St Patrick School for the Intellectually Disabled and Maria Magdalene School for The Intellectually Disabled. There are ten special units which also host children with intellectual challenges (Thika EARC, 14 February, 2015). This amounts to a total of about 200 children suffering from moderate to severe intellectual disabilities (in special schools) and almost an equal number in the units either suffering from mild or moderate ID.

The display of adaptive behavior has been important throughout the recorded history. The ancient Greeks asserted that the ability of individuals to care sufficiently for themselves and engage in community life reliably reflected intelligence and maturity (Clarke, Clerke & Berg' 1985). Development of DLS may assist learners with ID to increase anatomy, co- independence and nurturing problem solving in the house, school and in the whole community at large (Lombardi, 2011).

Adaptive behavior refers to 'the effectiveness and degree to which the individual meets the standards of personal independence and social responsibilities expected for his or her cultural group including what an individual does to care for him or herself and others and to relate to others (Grossman, 1983). It includes skills used by an individual to meet personal needs as well as deal with the natural and social demands in one's environment including skills needed to independently care for one's personal health and safety, dress and bathe, communicate, display socially appropriate behaviors and academic skills, effectively engage in recreation work, and engage in community work (Lambart,1974). The American Association on intellectual and developmental disabilities promulgated a model of adaptive behavior that is comprised of 10 skills; communication, community health, functional academics,

home and school living, health and safety, self direction, social work (American Association on Mental Retardation, 2002).

The assessment of adaptive behavior traditionally has been associated with eligibility criteria for intellectual disabilities (American Psychological Association, 2000). Researchers have investigated the display of adaptive behavior with persons who display various disabilities including those with Down Syndrome and Learning Disabilities (Harrison & Oakland, 2003). Kaur (2005) clearly indicates that learners with ID can progressively acquire adaptive behavior skills if exposed to conducive environment, trained personnel, and effective use of teaching methods.

The government of Kenya is committed to the quality education and training opportunities for all Kenyans. This was done through providing Education for all by introduction of free primary Education through Ministry of Education (MOEST, 1999). The government signed article 26 of the universal declaration of human rights, subsequently recognizing and committing itself to the right of every child to access education. Learners with intellectual disabilities require more teaching material than what is being provided by the schools (MOEST, 2009).

2.5 -3% of the world population is considered to have ID. According to Friend (2008) quoting US department of Education (2004), during 2003-2004 school years, 0.88% of all children aged 6-21 (580,375 students) received special education because they were identified to be having intellectual disabilities. Data from US department of education (2007) indicate that 545 492 children between ages 6 and 21 were identified as MR and were receiving special education during 2005-2006 year. This indicates a decline in number school going children affected by ID. Since the enactment of PL94-142 in 1975, the number of children ID has decreased significantly. According to

presidential committee on people with disabilities (2007), 7 to 8 million people (~3%) suffer from ID directly affecting 1 out 10 American families.

According to estimates by Ministry of Education (2004), 10% of the total population in Kenya, were people living with disabilities. The report indicates that of these 10% of PWD (3 million) 25% (750,000) were within school going age. Out of this number, 90,000 had already been identified, assessed in various assessment centers but only 14,614 had access to education.

According to Kenya Society for the Mentally Handicapped (2006), there are estimated 2.7 million persons with intellectual disabilities less than 19000 of who have no access to education. Because of the above, there is need for more emphasis on teaching courses that lead to self-reliance and independence as opposed to general knowledge in reading, writing and arithmetic.

Nyakondo (2000), conducted a study on problems faced by teachers in teaching the intellectually disabled children in Kisii County, Kenya. The study was conducted in Kisii Special School for the Intellectually Disabled Children. He has recommended rewarding as a way of motivating learners with intellectual disabilities. The researcher opines that Nyakondo did not look at the curriculum content which should include adaptive behavior skills as a way forward for learners with ID to cope with their daily living.

Kimeu (2012) conducted a research on inclusion of learners with mild mental retardation in regular primary schools in Yatta County, Machakos County, Kenya. He describes adaptive skills as aspects needed for one to adapt to their living environment and names the skills as self care, home living, communication skills, self direction and safety. Much as he has recommended teaching of adaptive behavior skills, Kimeu has

not explained whether the regular curriculum has any provision for adaptive skills for those learners with mild intellectual disabilities who are included in the regular schools.

Mbae (2015) conducted a study on factors influencing instruction among learners with ID in special units in Maara Sub County, Tharaka Nthi County, Kenya. She has looked at learner factors, parental factors, teacher factors and teaching methods and strategies. However, she did not look at the curriculum content which should include adaptive behavior skills to equip learners with ID on what to do after they leave school.

Ruteere (2009) conducted a study on effectiveness of teaching methods for daily living skills to learners with intellectual disabilities in special units in primary schools in Kasarani sub county, Kenya. The purpose of her study was to establish the effectiveness of teaching methods on acquisition of DLS to learners with ID in special units in primary schools in Kasarani Sub County, Nairobi County. Her study reveals that there is lack of adequately trained teachers (in special needs education), lack of teaching/learning resources, and poor curriculum delivery in the special units leading to poor acquisition adaptive skills among learners with intellectual disabilities in the units.

The current researcher opines that the studies conducted on learners with intellectual disabilities so far have not dealt much on the area of teaching adaptive skills as a special curriculum for learners with intellectual disabilities who cannot cope with the regular curriculum.

1.2 Statement of the problem

Learners with intellectual disabilities have an IQ below 70 and hence low reasoning capacity, delays in oral language development, deficits in memory skills, delays in the development of adaptive behavior among others (Gargiulo, 2009). Most of them cannot cope with the regular curriculum. The teaching of these children is characterized by several challenges like inadequate training of teachers, poor attitude towards these learners, and inadequate facilities to teach these children. Inadequate training of teachers leads to use of poor methods of teaching. Lack of training also leads to poor curriculum delivery. Hence most learners do not gain the adaptive skills in schools (Ruteere, 2009).

According to Nyakundi (2008) it has been found that some of the children who finish school are no better than those who did not attend school. The services offered at school are below the expected standard, he states. Friend (2008) states that though learners with intellectual disabilities undergo education in units and schools for the intellectually disabled, they come out lacking daily living skills. They are therefore not well integrated in the society leading to discrimination, segregation, rejection and abuse.

Records from Thika Sub County Education Office indicate that most learners overstay in the schools and units only to come out at advanced age and having not gained much in terms of education. This is usually caused by unsuitable curriculum content, inadequacy and unavailability of teaching resources, teacher factors like lack of training and pupil factors like severity of the intellectual disability.

Ruteere (2009) investigated effectiveness of teaching methods for acquisition of daily living skills by learners with intellectual disabilities in special units in Kasarani Sub County, Nairobi. She collected her data using 84 respondents who included teachers and pupils. She found that many schools which host learners with intellectual disabilities are headed by inadequately trained and untrained teachers who cannot deliver the best services to these learners. She also found that 90% of the head teachers in the schools under her study were not trained. Her conclusion was that learners in units do not acquire daily living skills as methods used were ineffective. She therefore recommends that the government should do more on training of teachers and provision of material in the area intellectual disability. However, Ruteere's study dealt only with special units in Kasarani Sub County. The current researcher tried to fill the gap left by Ruteere by carrying out a different study but under the same topic; to investigate factors that affect acquisition of adaptive behavior skills among learners with intellectual disabilities in special schools and units in Thika Sub County, Kiambu County. From the available literature, no other study has been conducted in Thika Sub County addressing teaching adaptive behavior skills to learners with intellectual disabilities. Since the researcher works near the sub county he was concerned with the high number of learners with intellectual disabilities as portrayed by very many special units and two large special schools for learners with intellectual disabilities. The researcher also found that most of the learners in the units had intellectual disabilities. It is in this context that this researcher intended to investigate the factors affecting acquisition of adaptive behavior skills among learners with intellectual disabilities in selected special schools and units in Thika Sub County.

1.3 Purpose of the study

The study aimed at investigating factors that affect acquisition of adaptive behavior skills among learners with intellectually disabilities in primary special schools and units in Thika Sub County, Kiambu County, Kenya.

1.4 Objectives of the study

The study was guided by the following objectives;

(i) Investigate curriculum used for learners with intellectual disabilities in Thika Sub- County.

(ii) Explore teaching/leaning resources used for learners with intellectual disabilities.

(iii) Identify teacher factors and teaching strategies for enhancing acquisition of adaptive behavior skills among learners with intellectual disabilities.

(iv) Establish learner factors affecting acquisition of adaptive behavior skills among learners with intellectual disabilities.

1.5 Research Questions

The study sought answers from the following questions;

(i) What curriculum is used for teaching learners with intellectual disabilities in Thika Sub County?

(ii) What teaching/learning resources are used in teaching learners with intellectual disabilities?

(iii) What teaching strategies are used to enhance acquisition of adaptive behavior skills among learners with intellectual disabilities?

(iv) What learner factors affect teaching of adaptive behavior skills to learners with intellectual disabilities?

1.6 Significance of the study

The researcher aimed at contributing in improving on strategies of enhancing acquisition of adaptive behavior skills for the gain of learners with intellectual disabilities, while in and out of school.

The study may also benefit the following areas;

The Ministry of Education may benefit from the recommendations given so that it is able to come up with a better curriculum suitable for learners with intellectual disabilities. The ministry may also realize the need to train more personnel for handling learners with intellectual disabilities. In addition, Ministry of Education may find ways and means of providing support to learners with intellectual disabilities. The study may also help the district supervisors to monitor special schools and schools with special units and offer support in material and human resources. It may also help teachers to gain knowledge in tactics to impact skills on different levels of intellectual challenges. To that effect, teachers' attitudes towards the learners with intellectual disabilities may become positive after realizing the children's potential in performing adaptive skills. Fellow pupils may also appreciate and accommodate learners with intellectual disabilities as one of their own as they participate in group work. Consequently, future researchers may also base their research on this study to make immediate amendments and come up with better options.

1.7.0 Limitations and delimitations

1.7.1 Limitations

The special schools and units for the intellectually disabled are few and scarcely distributed as compared to regular schools in the County. Due to time available and financial constraints, the study was limited to only one Sub County (Thika) and confined to one special school and two special units. For a more comprehensive study, more schools should have been involved in the study. However, the researcher made sure that the schools selected for the study were a good representation of other school with learners with intellectually disabilities. The study was limited to factors affecting acquisition of adaptive behavior skills in selected primary special schools and units in Thika Sub County. The study dealt with the educable intellectually disabled and the trainable intellectually disabled who are mostly found special units and in special schools.

Learners with intellectual disabilities need time to acquire certain skills. Others are inconsistent in how they perform already taught adaptive skills. The study needed more time to allow the researcher to observe improvement certain skills which took time for the learners to acquire. The researcher had to rely on the improvement achieved on the given time.

1.7.2 Delimitations

The study investigated factors affecting acquisition of adaptive behavior skills among learners with intellectual disabilities in units and primary special schools in Thika Sub County, Kiambu County. The study sample consisted of 46 participants who included 36 pupils, 7 teachers and 3 head teachers which was about 10% of the study population. The study only investigated curriculum used in teaching adaptive

behavior skills, teaching and learning resources for teaching adaptive behavior skills, and teacher/learner factors affecting teaching of adaptive behavior skills.

1.7.3 Assumption

The researcher made the following assumptions:-

The researcher assumed that the participants would be co-operative enough and participate willingly in the study. Another assumption was that teachers in special schools and units teach adaptive behavioral skills to children with intellectual challenges and would be in a position to give useful information for the study. The researcher also made an assumption that the teachers in special schools for the intellectually disabled have undergone training to handle learners with ID and would give maximum cooperation. Also, the researcher made assumption that learners with ID would respond well during observation to make the study possible.

1.8.0. Theoretical framework

The study was based on the social learning theory by Albert Bandura (1977).

One of Bandura's famous quotes is "people with high assurance in their capabilities approach difficult tasks as challenges to be mastered rather than threats to be avoided".

Albert Bandura's social learning theory stressed the importance of observational learning, imitation and modeling. 'Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions, to inform them what to do, Bandura explains (Bandura, 1977). His theory integrates a continuous interaction between behavior, cognition and the environment. Bandura stated that there a three basic concepts at the heart of social learning theory. First,

people can learn through observation, second the idea that internal mental states are essential parts of this process. Finally, this theory recognizes that because something has been learned, it does not mean that all will result in a change of behavior. This is more so because pupils with intellectual disabilities can be taught but cannot transform what they have learnt to practical work. They need more practical work to retain what they have learnt.

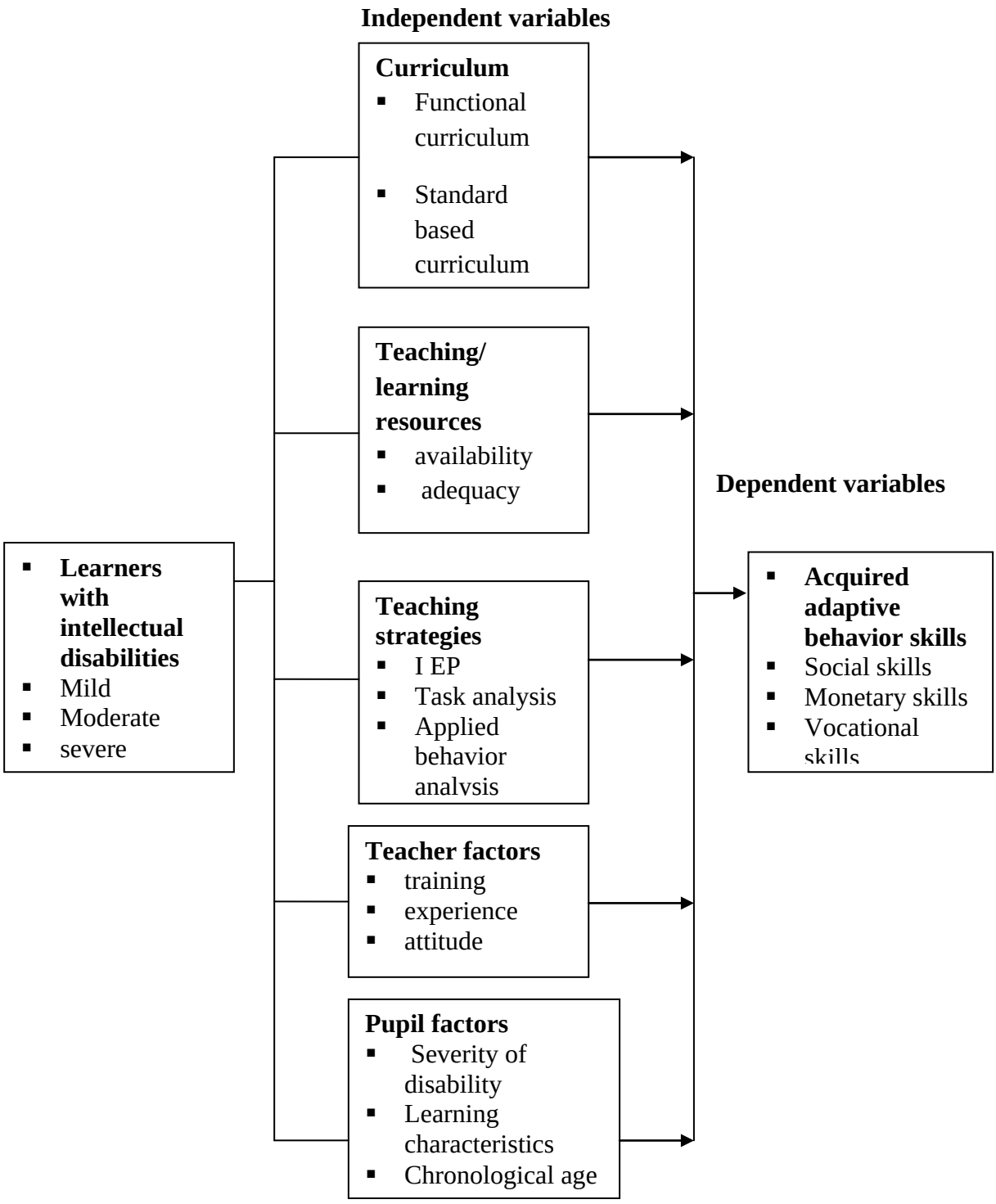
Bandura gave three models in observation learning as *Live model* which involves actual individual demonstrating or acting out a behavior, *Verbal constructional model* which involves descriptions and explanations of a behavior and *Symbolic model* which involves real or fictional characters displaying behaviors in books, television, programs or online media.

He refers to learning and modeling process as **Attention**, **Retention**, **Reproduction and Motivation.** Bandura's work can be seen in group work, in demonstration and even in use of teaching aids to help pupils acquire certain skills. His work contributes a lot in teaching of the learners with intellectual disabilities who require demonstration, observation and use of teaching aids to make learning easier for them. Today, both teachers and parents recognize importance of modeling appropriate behaviors. Other classroom strategies such as encouraging children and building socialization are also rooted in *social learning theory*. In social learning, there is immediate association of model behavior through visual coding of the model (Kirk & Gallanger, 1989). Live model which involves acting out a behavior has a positive effect on teaching adaptive skills to learners with ID learn through observation. Verbal descriptions help children with ID to follow instructions. Symbolic model helps learners with ID in retention of memory.

1.8.1 The conceptual frame work

Learners with intellectual disabilities do not benefit from the regular teaching since they have an IQ below 70% and hence cannot learn like other learners who do not have intellectual disabilities. The teacher needs to teach adaptive behavior skills in order to benefit these learners. To do this the teacher needs to use suitable methods and strategies which can benefit these learners. This calls for a suitable curriculum like the functional curriculum and the standard based curriculum. The teacher needs to have been trained in special needs education in order to teach these learners effectively. The teacher also requires teaching and learning materials which should be adequate, suitable and available. Pupil factors like age of the pupil and severity of the intellectual disability will determine how well the learner will acquire the adaptive skills. The curriculum, strategies and teaching methods, teacher training, teaching/learning material, and pupil factors have been referred to as the independent variables since they determine how effective the teaching of the adaptive skills will be. The acquisition of the adaptive behavior skills such as bathing, washing and eating among others has been referred to as the dependent variable because their acquisition will depend on how much the dependent variables will be manipulated. All this has been indicated in figure 1.1 on the next page.

Figure 1.1: The Conceptual Framework; Factors Affecting Acquisition of Adaptive Skills among Learners with ID



NB: Researcher's own conceptualization on study problem

1.9 Operational Definition of Terms

Adaptive behavior – The degree to which, and the efficiency with which, the individual meets the standards of maturation, learning, personal independence, and / or social responsibility that are expected for his or her age level and cultural group

Adaptive behavior skills-these are basic life skills taught to learners who cannot gain much on the formal academic curriculum (also referred to as daily living skills)

Daily living skills – These are skills taught to an individual to make him or her live independently. These skills include toileting, feeding, washing and bathing among others (also referred to adaptive behavior skills)

Disability – refers to loss or restriction of functional ability of part of the body due to impairment resulting in limiting the person's participation in the community

Functional curriculum- it instructs pupils in the life skills they require for successful daily living

Handicap – This refers to a disadvantage or restriction of activity which come as a result of society's attitudes towards the disability

Impairment – Damage caused to a part of the body either through accident, disease, genetic factors or other causes. It leads to a loss or weakening of the affected part

Inclusion – refers to and focuses on adjusting the home, the school and the society at large, so that all individuals can have opportunity to interact, play, learn, experience the feeling of belonging and develop in accordance with their potential and difficulties.

Intellectual disabilities – A person whose intellectual functioning is sub-average and he or she has deficit in adaptive behavior as compared to his peer of the same age, sex, cultural and environmental background.

Mental retardation-a disability characterized by significant limitations in both intellectual functioning and in adaptive behavior as expressed in conceptual, social, practical adaptive skills. This disability originates before age 18.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The purpose of the study was to investigate factors affecting acquisition of adaptive behavior skills among learners with intellectual disabilities in selected special schools and units in Thika Sub County, Kiambu County, Kenya.

The aim of this chapter was to review literature on curriculum provision for learners with intellectual disabilities, teaching and learning resources for learners with intellectual disabilities learners, teacher factors and teaching strategies used to teach learners with intellectual disabilities and pupil factors affecting acquisition of adaptive skills among learners with intellectual disabilities.

2.1 Curriculum provision for learners with intellectual disabilities

In education, adaptive behavior is referred to as that which meets the needs of community stake holders and those of the learner now and in near future. These behaviors include effective speech, self help skills, using money, cooking and reading. Adaptive behavior includes socially responsible and independent performance of daily activities (IDEA, 2004).

According to IDEA (2004), adaptive behavior skills encompass a range of daily situations and they usually start with task analysis. The task analysis will reveal all steps necessary to perform the task in the natural environment. Adaptive behavior skills include self care, communication, self direction, social skills, leisure skills, home or school living, functional academics, community use, work and health and safety skills.

Teaching adaptive behavior skills is often part of the curriculum for students with intellectual disabilities. The IDEA (2004) gives adaptive skills according to the following skill areas; Self-care, Communication skills, Self direction, Social Skills, Home or school living, Functional Academics, Communication, Work Ability, Health and safety. These children have special needs but are capable of learning, just at a slower pace.

These children should be encouraged to be independent, with help from the parents, in dressing, grooming, and feeding. Parents and teachers can work together to increase adaptive skills by sharing information about what the children are learning. In addition Teachers should prepare individualized education program (IEP) (Ndichu, 2002).

According to Friend (2008) learners with intellectual disabilities lack DLS for independent living. This is exhibited by the way they are discriminated, segregated, rejected, and abused by the society. Many studies conducted on learners with intellectual disabilities have not considered teaching of adaptive behavior as a need for those who cannot gain much from the regular curriculum.

According to Robinson and Robinson (1976), the intellectually disabled have a low mental age when compared to their non disabled age mates. They further explain that mildly disabled adults have a mental age of an average non-disabled child of between 8 and 10 years. The moderate disabled adults have a mental age of an average normal child whose age ranges from 6 to 8 years. The severely disabled adults have a mental age of between 3 and 5 years of an average normal child. The profoundly retarded adults have a mental age of an average normal child of less than 3 years. Kirk (in Ndurumo,1983), states that the educable intellectually disabled children are not ready

to learn basic writing, reading or arithmetic when they enter school at age six. The skills remain undeveloped until age eight or eleven. Therefore the skills which do not involve literacy and numeracy could be utilized to achieve educational objectives at the ages below eleven years. Harring & Schiefelbusch (1976), observed that purely academic achievement is inappropriate for these children with intellectually disabilities. They stress that their programs should emphasize on social competence, occupational skills and self care. For the educable intellectually disabled, high priority has to be given to the development of vocational and social skills to enhance the person's transition from school to a job setting (Telford & Sawery, 1981). Kirk and Gallagher (1983) opine that there are basic skills that are offered in every class. In teaching these skills, they say, the educator must recognize the equivalent developmental ages in class for the intellectually disabled children, which range between 3 and 7 years. They suggest the following skills; *modified reading, arithmetic, writing, language, hygiene, practical arts and motor development*.

Gargiulo, (2009), states that these children are able to learn but they need instructional program that is individualized to meet their needs. He suggests that instructions provided for these learners must be comprehensive and functional; equipping them to the maximum extent possible with experiences they need to live and work in their respective communities. He also suggests different educational placement for those learners according to severity of intellectual disability. These are for example *separate class, resource room and inclusive classroom.*

According to Gargiulo (2009), *functional curriculum* is the one that instructs pupils in the life skills they require for successful daily living and prepare them for those situations and environments they will encounter upon leaving school.

In *functional curriculum*, academic skills are applied to everyday practical life situations, for example giving change, following directions from a cook book, reading washing instructions or completing job application, known as *functional academics*. These skills are often the core of instructional programs for individuals with mild or moderate intellectual disabilities. These children are additionally exposed to curriculum content focusing on personal hygiene, independent living skills, community resources and other issues that collectively are designed to enhance their current and future independence and successful adjustments (Johnson, 2005). Several approaches are available for teaching functional academics. Two of the most commonly used strategies are functional, *generalized skills* used for daily routine and *embedded academic skills* appropriate to specific life situations. Okoko (1978) observes that every good curriculum for learners with intellectual disabilities should contain daily living skills. She asserts that trained teachers should identify and use correct methods to teach daily living skills, a fact that the current researcher concurs with. However, Okoko does not explain the suitable methods and curriculum that can be used to teach learners with intellectual challenges. Gargiulo (2009), suggests *standard based curriculum* as an alternative to *functional curriculum* which is used when the functional curriculum is not suitable for some individuals. He explains that *standard based curriculum* exposes an individual with intellectual disabilities to general educational curriculum and life skills depending on the student's needs and the wishes of the parent.

Studies done in Kenyatta University have looked into inclusion of intellectually disabled learners in the regular classroom. They have also looked into the resources and challenges facing teaching of the intellectually disabled learner. However, not many of these studies have researched on strategies of teaching adaptive behavior

skills to learners with intellectual disabilities. Nyakondo (2000) recommends rewarding for motivation when teaching children with intellectual disabilities. He talks about plays and imitation as good methods to motivate these learners. Though Nyakondo's study has looked into *effective methods of teaching learners with intellectual challenges* the researcher opines that it lacks a way forward for those learners who require a special curriculum. Kimeu (2012) focused his study on *inclusion of learners with mild mental retardation in regular primary schools in Yatta District, Kenya.* He describes adaptive skills as aspects needed for one to adapt to his or her living environment. He names the skills as self-care, home living, community size, self- direction, health and safety. However, he did not explain which curriculum caters for those learners which can fit those ones who cannot cope with the regular curriculum. The current researcher would therefore like to investigate the curriculum in place for learners with intellectual disabilities in Thika Sub County

Some selected adaptive behavior skills for learners with intellectual disabilities

Adaptive behavior includes socially responsible and independent performance of daily activities. However, the specific activities and skills needed may differ from setting to setting. When a student is going to school, school and academic skills are adaptive. However, some of those same skills might be useless or maladaptive in a job setting (Barrof, 2010).

Teaching adaptive behavior skills is often part of exceptional student's education (ESE). Adaptive behavior skills are as important to student's success as are academic skills. The first step in any training process involves selecting the skills to be taught. When choosing the adaptive skills the goal should be to increase the independence of the student. Other factors to be considered the skill the student currently performs, the

demand of the environment, in which the student participates, the students chronological age, the manner in which the peers perform the task and the typical environment in which the task will be performed (Gatimu, 2010).

Ndichu (2002), defines the following life skills; Toilet Training, Dressing, Bathing, Personal hygiene, Washing, Social skills, being courteous, Manners and mannerism and Functional academics-reading, writing, budgeting and shopping.

The following are some selected adaptive skills that can be taught to learners with ID.

Basic self-care skills

These include hygiene, dental care, medical care, grooming, dressing, toileting, and feeding one's self. In hygiene the child taught to wash hands before meals, use of bathroom, food preparation and use of cleaners and other chemicals. Toileting, eating, dressing and personal hygiene are the most critical self-care areas (Gatimu, 2010). Toileting skills may need to be adapted depending on environmental demands; for instance potty seats on toilets, a small child's potty chair (Webber & Scheurmann, 2002).

Dental care includes brushing, caring for one's teeth and visiting the dentist as recommended. Medical care includes taking care of one's body and avoiding injuries in exercises. In grooming, the child can be taught how to select cloths for different occasions, how to clean shoes among others (Ndichu, 2002).

Social skills

These in include maintaining interpersonal relationship, understanding emotions, and social cues, and obeying rules and laws. The child can be taught how to make friends,

how to maintain relationship and how to obey class rules and school regulations (Ndichu, 2002).

Functional Academics

These include using reading, writing and mathematics skills in everyday life. Some signs of reading difficulties including hesitant reading and labored or slow reading especially when reading loud etc. The learners have problems of word attack. They fail to recognize words, miss one line, or read the same line twice or lose some words when reading. (Ogonda, 2001). In mathematics, the child can be taught how to budget for shopping, how to get correct balance and how to identify different denominations.

Monetary skills

This includes budgeting and shopping. The learner should be trained to use different types of currencies (money identification). Budgeting includes making a list of all items to be bought and corresponding prices. The learner should also be able to calculate the total and the correct change. The learner should also be taught negotiation skills (Ndichu, 2002).

Vocational skills

They include skills where the learner uses his own hands to make valuable items like in woodwork (carpentry), mat making, shoe repair etc. They are taught in workshops by specialist teachers. Items made can be sold by the pupils for their own benefits (Ndichu, 2002).

2.2 Teaching/learning resources for learners with ID

A curriculum is void of practical meaning without supportive materials such as text books, visual aids, paper and chalk among others. The researcher concurs with Makumi (2010) who states that equipment and supplies for any schools must be up to date.

Adequacy and use of resources for maximum effect can make a big difference to school and the learner (Fisher, 1995). Teachers of learners with intellectual disabilities should not just settle for good enough but seek to do better by ensuring adequate and effective use of instructional resources. The teacher's first responsibility is to ensure that his class is adequately resourced (Edgington, 1998). The scholar argues that resources should be available as much as possible and they should be sufficient to encourage imaginative use. Availability and adequacy of wide variety of instructional resources and from many sources can stimulate the interest and active engagement of learners with intellectual challenges (Heward, 2000). According to Edgington (1998), making as wide range of equipment as possible available for children to choose from every day is the best way of encouraging sharing and turn taking. The scholar argues that in class where staff limits the activities on offer or time available to use equipment, there is often an air of desperation about children who know that if they do not get a turn now, they may not get one at all before the equipment is taken away. But if they know that what is available today will still be available tomorrow, they are certain to be more relaxed about their involvement. Makumi (2010) conducted a study on *challenges facing teachers in learning resources management in Primary Schools and units for intellectually challenged learners in Kiambu District*. She talks about learning resources for intellectually challenged learners. She opines that the equipment and supplies should be adequate

and available to enable teachers and pupils achieve success in the teaching and learning process. Lack of resources, both human and material, is a major constraint in curriculum implementation. When resources are scarce human resources development becomes poor (Makumi, 2010).

There is inadequate provision of appropriate teaching/learning material for special needs education because most of the materials available in the market are mainly developed for regular curricular and regular learners. There is limited availability of curriculum support material which limits the ability of teachers in SNE to employ a variety of content, teaching/learning activities for effective curriculum delivery. Learners with specific disabilities and special needs require specialized educational resources at individual school level depending on nature and extent of disability (Kimeu, 2012).

2.3 Strategies and methods for enhancing adaptive behavior skills

All teaching methods are variations on a few common themes and those that are good for the non exceptional are also good for the exceptional (Makumi, 2010).

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, 2011). The best methods are those which involve and motivate the learner. A study by Cannellta-Malone, Fleming, Yi-Chung, Geoffrey, Abby and Angela (2011) on teaching DLS to learners with ID 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.

Carol Howei (1965) identified a cheap method of motivating learners with special needs used previously in USA. This is a dance therapy which she classified as communication through movement, resocialization, releasing tension and satisfaction of achievement. In certain cases, for instance the psychotic cases, language loses much of its effectiveness as a means of relating to others. Ruteere (2009) conducted a study on 'effectiveness of teaching methods for daily living skills to learners with intellectual challenges in special units in public schools Kasarani sub-county'. She found that using right methods, though at a slower pace, learners with intellectual disabilities are able to learn. She also found out that some teachers were using abstract methods to teach DLS; that some teachers do not use correct strategies to enhance teaching methods. She asserts that many head teachers in these schools are not even aware of what is taught in DLS. She recommends that a learner with ID requires a specialist in the area of her needs to acquire DLS. Ruteere's conclusion was that 90% of teachers and head teachers in the units are not aware of the correct methods to teach DLS and as a result the learners in the units are not taught effectively and recommends that schools with units should be headed by teachers who have trained in SNE and have a child at heart. The researcher concurs with Ruteere on the above findings. However, since Ruteere's study dealt on special units only, it doesn't explain the situation in special schools which might be different. Makumi (2010) also talks about learning ability of the learners. She states that while teaching, the teacher should start slightly below the child's level. The researcher concurs with Makumi but opines that she should have mentioned about teaching of adaptive behavior skills, which is the main area of concern for learners who are intellectually challenged.

In addition to good methods of teaching, the following strategies can be used to enhance acquisition of adaptive behavior skills among learners with intellectually disabilities;

Task Analysis: Lindsy (2006) posits that for a teacher to accommodate learners with intellectual disabilities in learning activities he/she should demonstrate the ability to break tasks down into small steps and introduce the tasks one step at a time to avoid overwhelming the individual. This is where a complex behavior (task) is broken down and sequenced into component parts (Albert & Truntman, 2006). Task analysis can be used to teach a variety of daily living skills and vocational skills to individual with varying degrees of cognitive impairment. Examples of these successful efforts include teaching food preparation skills to elementary students with moderate to severe intellectual disabilities (Fiseus, Morse & Collins, 2002); teaching functional counting skills to young children with moderate to severe intellectual disabilities (Xin &Horlmes, 2003), and teaching laundry skills to high school students with moderate intellectual disabilities (Taylor, Collins, Scluster & Kleinert, 2002). Task analysis 'involves breaking a complex skill into smaller teachable units, the product which is a series of sequentially ordered steps or tasks (Cooper, Heron & Heward, 2007).

Cooper (2007) conducted a case study on a child who was in a special classroom and was experiencing problems with getting ready to go home. The teacher presented the child's problems. He said that the child was slow, easily distracted and sometimes almost missed the bus to go home. According to Cooper, the teacher felt it was simple for the child to go home, since all other children were able to do it. However, on Cooper's investigation, it was a complex task for the child for it involved a fairly complex sequence or behavior. This included 22 steps with which Cooper created a

task analysis. After 8 school days, the child completed the steps needed to leave the class independently (Cooper, 2007).

Cooperative learning: This is another instructional intervention that can be defined as an instructional technique in which small heterogeneous groups of learners are actively involved in jointly accomplishing an activity or assignments. The teachers structure a fashion that each pupil significantly contributes to the completion of activity according to his or her ability. Although recognition and rewards are based on group performance, the success of each individual directly affects the accomplishments of the classmates (Johns, Johnson & Holubec, 1998).Cooperative learning can be used with any subject area; however, it requires careful planning and consideration of the needs and abilities of each member. Pupils with disabilities may require special preparation and support in order to allow for their maximum participation and benefits. Cooperative learning benefits all learners, contributes and enhances the self esteem of individual with special needs and increase the acceptance of individuals with disabilities (Smith, 2008).

Scaffolding: This technique is especially applicable to students with intellectual disability, who are usually characterized as ‘inactive’ or ‘passive learners. The aim of this approach is to help the learner become independent problem solvers. It is a cognitive approach to instruction. In this teacher directed strategy, various forms of support are provided to students as they initially engage in learning a few tasks or skills. As the student becomes increasingly competent, the support or scaffolds are gradually removed. This instructional method begins with what the pupil already knows and attempts to connect new information with previously learned materials. New information is presented in a logical sequence, building on the student’s

knowledge. Pupils are then given opportunity to apply and practice what they have learned (Gargiulo, 2009).

Group work: It involves dividing learners into small groups to perform given tasks. Effective instructions takes place in teacher directed groups that are academically focused. Effective instructions are also individualized for members of each group (useful methods for teaching mentally retarded students, 2006).

Individualized Education Programme: This is a teaching programme defining several strategies that assists teachers to cater for a child with special needs (Ruteere, 2009). It spells out where the child is, where the child is going, how the child will get there, how long it will take the child to get there, and how to tell that the child is already there in terms of performing a given task (Friend, 2008).

Applied Behavior Analysis: It is an intervention strategy used by teachers to increase the occurrence of desired behavior and decrease undesired behavior in all learning situations (Reynold & Zupanic, 2011).

Modeling: Modeling is learned by observation and imitation. Modeling is also referred to as observation learning, copying or role playing. It incorporates such process as Attention Phase, Reproduction Phase, and Motivation Phase (Ruteere, 2009).

Structured Teaching: This is an intervention strategy that involves understanding of unique features and characteristics of learners with intellectual disabilities, organizing learners' environment, developing appropriate learning activities and teaching of daily living skills through various teaching methods. It also involves helping learners with ID understand what is expected of them (Brennan, 1987).

2.4 Teacher factors and their effects on teaching learners with intellectual disabilities

In Zimbabwe, Mapuranga and Nyakudzuka (2014) posit that perception of the teacher may affect the learning outcome of the learner with intellectual disabilities in a regular class. One of the major constraints to progress in special education in Kenya is shortage of specially trained teachers (Makumi 2010). According to Ruteere (2009) the main problem in teaching adaptive behavior lies on lack of trained personnel in schools teaching learners with intellectual disabilities. Ruteere asserts that most head teachers of schools with a special unit are not aware of what happens in the units. Majority of teachers in our units use ineffective methods and approaches such as lecture, look and say, among others due to lack of training (National Action Plan, 2003-2015). Aluoch (1982) states that lack of resources both human and material are major constraints to curriculum implementation. The researcher concurs with Aluoch that inadequate human personnel ends up in increased workload leading to poor performance. Lack of training leads to negative attitude which makes the teacher feel detached from learners. Teacher attitude is one of the most important variables in education of children with disabilities (Parasuram, 2006). Before implementation of any special education progress for students with disabilities within public schools, it is important to determine the attitude of the educators and administrators towards persons with disabilities.

According to Kuester (2000) and Powers (2002), training in the field of special education appears to enhance understanding and improve attitudes regarding inclusion. Inadequate training may result in lower teacher confidence (Mbae, 2012).

This limits the teacher's attachment and interest in teaching daily living skills to learners with intellectual challenges (Ruteere 2009). Githaiga (2014) conducted a study on teachers' attitude towards life skills education but she concentrated on secondary schools in Thika West. Kimeu's (2012) study on effect of inclusion of learners with mild mental retardation did not look at teacher's attitude as an important factor when teaching learners with intellectual disabilities. According to Kimeu, human resource is significant concern in the provision of special needs education services. This is because the success of SNE services requires specialized human resources, specially trained teacher and support staff among others.

2.5 Pupil Factors and their effects on teaching learners with intellectual disabilities

Ardinger (2000) states that the signs and symptoms of ID are behavioral. Most people with ID do not look as if they are afflicted with such especially if the disability is caused by environmental factors such as malnutrition and food poisoning. The so called typical appearance ascribed to people with ID is only present in a minority of cases, all which are syndromic.

Ardinger also states that children with ID may learn to sit, to crawl and walk like other children or they may learn to walk later. Both adults and children may also exhibit delays in oral development, deficits in memory skills, difficulties in learning social rules, difficulties in solving problems, delays in development of adaptive behavior skills and lack skills to help them socialize with others. They take longer to learn languages, develop social skills, and take care of their personal needs, such as dressing or eating, learning will take them longer, require more repetition and skills may need to be adapted to their learning level. Nevertheless, virtually every child is

able to learn, develop, and become a participating member of the community. According to Daily, Ardinger and Holmes (2000), people with mild ID are capable of learning reading and mathematical skills to approximately the level of a typical child aged nine to twelve. They can learn self care and practical skills such as cooking or use of local mass transit system. As they reach adulthood they may learn to live independently and maintain gainful employment. In class, they have attention deficits, impaired memory, poor academic performance, lack motivation, lack generalization, have poor language development, and poor interpersonal relation. The educable intellectually disabled may learn academic skills up to a certain level while the trainable intellectually disabled may only learn adaptive behavior skills also called daily life skills.

Connor (1964) states that uniqueness on the child with intellectual disabilities is responsible for his or her need for special education and that the uniqueness is also worthy exploration. Demands and expectation in the special class are adapted to the learners' special behavior.

According to American Association of Mental Deficiency (AAMD), (in Ndurumo 1963), intellectually disabled persons are classified according to degree or level of severity as measured using IQ test. Educationally, there are three categories; Educable Intellectually Disabled (IQ of 75-70), Trainable Intellectually Disabled (IQ of 50-25), and Severe/Profound Intellectually Disabled (IQ below 25). The Educable intellectually disabled can be taught academic skills only to a certain level while the trainable can be taught adaptive behavior skills.

Children with mild mental retardation in Kenyan schools are educated with students without disability in regular schools and classrooms (Mutua & Dimitriv, 2001) with no support, adaptation or modification. Students with moderate to severe forms of mental retardation are educated mainly in units in regular schools and special schools and residential settings for children with intellectual disabilities (Kiarie, 2006). Whether in units, special schools or residential settings, their education services are specialized in that they do not follow the academic curriculum (Mbae, 2015).

Gargiullo (2009), explains that although individuals with intellectual disabilities may exhibit particular feature as a group, not all individuals who are intellectually disabled may share these characteristics. He goes on to explain that their cognitive functioning may vary greatly. They exhibit difference in learning characteristics, memory, academic performance, motivation, among other characteristics. Some pupils may have other health problems affecting their physical and psychological functioning as in case learners with multiple disabilities. Gargiulo states that not all individuals identified as intellectually disabled share the same characteristics. He identifies factors that influence individual behavior as chronological age, severity and etiology of the disability among others. Ruteere (2009) mentioned factors that affect teaching of DLS as teaching methods, teacher factors, and learning material but did not explore pupil factors as an effect in teaching adaptive behavior skills to learners with intellectual disabilities. The retarded are essentially normal individuals who differ from non retarded primarily on their slow rate and lower level of cognitive development. Performance is predominantly a function of development level and the retarded are similar to chronologically younger non-retarded children (Makumi, 2010).

2.6 Summary of Chapter two

The chapter has reviewed that there is a curriculum in place for children with intellectual challenges. These children have IQ below 70 and cannot fit in the regular curriculum. They require a curriculum that accommodates teaching of adaptive skills which will be useful to them in and after they leave school.

Daily living skills are essential to all human beings. Children are supposed to learn them naturally as they undergo developmental milestones such as sitting, crawling and walking. However, children with intellectual disabilities delay in acquiring these skills. They have to be taught using methods and strategies which will help them acquire the skills.

To that effect, the chapter has reviewed the curriculum used by teachers to teach adaptive skills. The chapter has reviewed *functional curriculum* where academic skills are applied to every practical life situations. The *functional curriculum* has two common strategies being; *generalized skills* used for daily routine and *embedded academic skills* appropriate for specific life situations. The study by Nyakondo (2000) and Kimeu (2012) did not give way forward on curriculum for teaching adaptive behavior.

The study has reviewed teaching and learning resources for learners with ID. Teaching of adaptive skills requires resources to be adequate and available. The researcher is of the opinion that the study by Makumi (2012), did look into teaching of adaptive behavior though she mentioned about management of learning resources.

The chapter also looked at strategies used to teach learners with intellectual disabilities. The chapter explains that teaching or intervention strategies are used by the teacher to make teaching methods effective. They include, task analysis, cooperative learning, scaffolding, applied behavior analysis among others.

The study has discussed teacher factors such as lack of training, inadequacy of teachers and negative attitudes as mentioned by Ruteere (2009) and their effects in teaching Adaptive skills among learners with ID. Kimeu (2009) did not look at teachers' attitude as a factor in teaching learners with ID.

Pupil factors were also reviewed as etiology of the disability, severity and learning characteristics. These factors bring uniqueness in the child's learning behavior in that each child has different learning abilities.

Some of the adaptive behavior skills mentioned in this chapter are Self care, Communication Skills, Self Direction, Social Skills, Home or School living and Functional academics.

No other available study involving teaching of adaptive behavior skills has been conducted in Thika Sub County. Many studies have not investigated factors that affect acquisition adaptive skills to learners with intellectual disabilities.

This study, therefore, sought to investigate factors that affect acquisition of adaptive behavior skills among learners with intellectual disabilities in Thika Sub County, Kiambu County.

CHAPTER THREE

RESEACH DESIGN AND METHODOLOGY

3.0 Introduction

The purpose of the study was to investigate the factors that affect acquisition of adaptive behavior skills among learners with intellectual disabilities in selected primary special schools and units in Thika Sub County, Kiambu County. The aim of this chapter was to give description of procedures which were used in carrying out the study. It covers the description of the design, research variables, location of the study, sampling technique and sample size, research instruments, pilot study, data collection procedures, data analysis and logistical and ethical considerations.

3.1 Research design

The study adopted a descriptive survey design involving both qualitative and quantitative approaches (mixed methods) to investigate the strategies of enhancing acquisition of adaptive behavior skills among learners with intellectual disabilities in Thika Sub-County. Descriptive survey is a method of collecting information by interviewing or administering a questionnaire to a sample of individuals (Orodho, 2000). It can be used when collecting information about people's attitudes, opinions, habits or any of the variety of education or social issues (Orodho & Kombo, 2002). Tashakori and Kombo (2007) describe mixed methods research as a research in which the investigator collects and analyses data, integrates the findings and draws inferences using both qualitative and quantitative approaches in a single study. The researcher collected data using questionnaires, performance check lists, observation checklist (quantitative) as well as open ended questions and interview (qualitative)

and described the situation on the ground as far as learners with ID are taught in the selected schools.

3.2 Location of the study

The study was carried out in Thika Sub-County of Kiambu County, Kenya. Kiambu County is in the Central Region of Kenya. It borders Murang'a County to the North, Nyandarua County to the West, Narok County to the South and Machakos County to the East. Thika Town (inThika Sub County) is about 40 kilometers from Nairobi town and about 20 kilometers from Kenyatta University on your way to Murang'a town. Thika Sub County has many schools with special units. St Patrick Special School for the Intellectually Disabled is also located within Thika Town. The researcher works near Thika town. The researcher found the location appropriate enough for him to conduct the study since he is familiar with the town and all the schools needed for the study were within reach.

3.3 Research variables

3.3.1 The Independent variables

In this study, the independent variables were: curriculum for teaching learners with ID, teaching/learning resources for teaching learners with ID, strategies for enhancing acquisition of adaptive behavior skills among learners with ID and teacher/learner factors affecting acquisition of adaptive behavior skills among learners with ID.

3.3.2 Dependent variables

The dependent variable in the study was the acquisition of adaptive behavior skills like dressing, bathing, feeding, and other related skills referred to as life skills. This was to be the outcome of the study which could be influenced by the independent variables.

3.4 Target population

All items or people under consideration in any field of inquiry constitute a universe or target population (Orodho, 2004). In this study, the target population constituted of all teachers and head teachers teaching learners with intellectual disabilities in Thika Sub-county. The learners were also be targeted. This comprised of 52 teachers, 3 head teachers and 399 pupils (177 boys and 222girls) making a target population of 454 (Thika EARC, 2014).

3.5 Sampling technique and sample size

3.5.1 Sampling technique

The researcher used purposive sampling technique to select the County, the units, the special school and the teachers in the given schools. Out of ten special units and two special schools in the Sub-County, one special school (Maria Magdalene), was used for pilot study while one special school (St Patrick) and two units (Kimuchu and Kenyatta special unit) were involved in the main study. The sample size comprised of 46 participants. The researcher used purposive sampling to select the 21 learners in the units (9 boys and 12 girls) since not all of them have intellectual disabilities and used random sampling to select a class of 15 learners in the special school (7 boys and 8 girls) since all the learners qualified for observation but a sample of them was enough for the study. This added up to 36 pupils (16 boys and 20 girls).

Five teachers from the special school were purposively sampled. The choice of purposive sampling here was because the researcher wanted to target teachers who had knowledge in special education and those who teach adaptive skills. One teacher from each unit was involved in the study. All the head teachers of the sampled schools and the EARC coordinator were included in the sample. The EARC Coordinator was

contacted to provide the needed information on schools with learners with intellectual disabilities in Thika Sub-county.

3.5.2 Sample size

Slavin (1997) observed that due to limitation in time, funds and energy, a study could be carried out from carefully selected sample to represent the entire population. The situation was applicable to the study. The researcher purposively sampled one special school and two special units for the study. The researcher sampled a total of 46 participants. The total number of pupils involved in observation was thirty six (21 from the units and 15 from the special school). This comprised of 16 boys and 20 girls. This sample (forty six subjects out of a population of 454 subjects) was about 10% of the target population. This was done because it was not possible for the researcher to conduct the research in all the target schools and units. Mugenda and Mugenda (1999) suggest that at least 10% of the population is adequate for descriptive studies.

Table 3.1 Sampling Technic and Sample Size

RESPONDENTS	**SAMPLING TECHNIQUES**	**POPULATION**	**SAMPLE SIZE**	%
Children in special schools	Random sampling	180	15	8.3
Children in units	Purposive sampling	219	21	9.5
Total		**399**	**36**	9.0
Teachers in special schools	Purposive sampling	29	5	17.2
Teachers in units	Random sampling for the unit but no sampling for the teachers in the sampled units	23	2	8.7
Total		**52**	**7**	13.5
Head teachers	No sampling	3	3	100
Total		**454**	**46**	**~10%**

3.6 Research instruments

The researcher developed and used different instruments to collect data. These were; questionnaires for teachers and head teachers, interview schedule for the EARC coordinator and observation schedule for pupils in learning activities.

3.6.1 Teacher questionnaires (appendix 2)

This was used because of its objectivity and potential in providing a great deal of information from respondents. Berliner (2002) observed that questionnaires are widely used in research because it is possible to give similar standardized questions to the subjects. This makes it possible to compare responses from different subjects in the same question. Questionnaires were used to gather information from the teachers. The teacher questionnaire had two sections. Section one was used to fill the teacher's personal information. Section two was used to fill teacher's views on strategies used in teaching adaptive behavior skills to learners with intellectual disabilities.

3.6.2 Head teachers' questionnaire (appendix 1)

It was administered to all head teachers of the schools involved in the study. This was because head teachers are the main implementers of the government policies and curriculum in the schools and can tell whether the teachers in the schools use any strategies in teaching adaptive behavior skills to teach the pupils involved. Head teacher's questionnaire also had two sections. Section A was used for personal and general information and section B was used for views on strategies used by teachers in teaching adaptive behavior to learners with intellectual disabilities.

3.6.3 Interview schedules (appendix 3)

Safyanarayan (1983), states that interview schedule is an appropriate instrument in any study, because it helps the interviewer to cover all the dimensions of an

investigation, through probing the participants. An interview was held between the researcher and the EARC coordinator. The interview for EARC coordinator provided information on number of schools and pupils with intellectual challenges in the municipality and how they are taught. It also provided information on staffing and factors they consider when posting teachers to schools with intellectually disabled pupils. The interview schedule comprised of both structured and unstructured questions. Contingency questions were included. The information given was used for both qualitative and quantitative data.

3.6.4 Observation schedule (appendix 4 and 5)

As a data gathering device, direct observation makes an important contribution to research (Best, 1989). Observation schedule was planned by the researcher through the class teachers and subject teacher so that the pupils would be seen during the lesson and while performing their learning activities. Observation checklists were used to fill information concerning learning environment and acquisition of adaptive behavior skills by the learners. An observation checklist is a tool for gathering information and consists of behavior that makes up a certain type of performance (Frank & Wallen, 2003). It is used to determine whether or not an individual behaves in a certain way when asked to complete a given task. The researcher used the two self made checklist, one for recording the learning environment of the learner and another one for recording performance of DLS by learners. The above two instruments both provided quantitative and qualitative data.

3.7 Pilot study

To ascertain effectiveness of the questionnaires, a test-retest method was carried out in St Mary Magdalene School for the Intellectually Challenged in Munyu, Thika Sub-county. The test-retest method involved administering the same instrument twice to

the same respondents at a two week period between the first and the second test. The first results were compared with the second results. The objective was to measure validity and reliability of research instruments. This was with view of ascertaining whether the questionnaires and the observation checklist measured what they were intended to measure (validity) and whether they would be interpreted the same way by all the respondents (reliability) in order to improve on them. The institution for carrying out pilot study was chosen because it was near the sampled schools and had similar learning environmental factors and also had a significant number of children with intellectual disabilities.

3.7.1 Validity

Validity is the degree to which a test measures what it purports to measure (Borg and Gall, 1989). Content and construct validity were enhanced at the design stage (Gathera, 2003; Machila, 2005; Odero, 2004).

Content validity of research instruments were ensured through judgment from the researcher's supervisors who studied the contents before the pilot study was carried out. They also studied the responses after the pilot study was carried out and gave their feedback. Pilot study carried out checked the appropriateness of the language used in the questionnaire as well determined the difficult items in the instruments. After the feedback from the supervisors, the necessary corrections were made on the wording and on the questions in the questionnaires.

3.7.2 Reliability

Frank and Wallen (2000) define reliability as the consistency of scores obtained when a test is given at different times for the same group of people. Reliability co-efficient of all the instruments was determined after piloting stage. In this case the instruments

were administered to the subjects involved in the pilot study at different times in close succession using test-retest method. The developed questionnaire was given to the teachers and head teachers of the pilot school and scored manually. The pupils were observed while performing skills and each was given a score using an observation checklists. The observation checklists were used to collect data for qualitative analysis. Retest was done after two weeks after which correlation between the two sets of data was determined. To determine the correlation, the researcher used Karl Pearson's method of correlation. In this method, the co-efficient of correlation of two variables is obtained by dividing the sum of products of the corresponding deviations of the various items of the series from their respective means by the product of their standard deviations and the number of pairs of observation. This method is called Product Moment of Co-efficient of correlation (Saleemi, 2009). A co-efficient of 0.75 was realized for both questionnaires and 0.78 for the observation checklist. A reliability co-efficient of 0.7 and above is taken to depict an agreeable level of reliability for the instruments; thus the items of the instruments are deemed reliable (Kothari, 2004). The researcher therefore considered the instruments appropriate for the study.

3.8 Data collection procedure

In the actual data collection, the researcher visited each of the three selected schools where he held a meeting with each head teacher. With the head teacher's permission the researcher arranged to meet each of the selected teachers. The researcher also made arrangement with class teachers in regard of observation of lessons being taught. He also made arrangements for an interview schedule with each of the 3 head teachers and the EARC coordinator.

Data was collected using questionnaires, which were administered to the head teachers and the teachers on individual basis. Teachers and head teachers were given the questionnaires. Questionnaires were numbered to make it easy to identify the respondents. To increase trustworthiness of the data the researcher established good rapport with the respondents, urging them to be honest and ensuring them that their answers would be treated with confidence. By using multiple data collection tools and multiple participants and later comparing their views the researcher ensured triangulation of the data. Gilham, (2002) emphasizes that a researcher should look for different kinds of evidence in what people say, do, make or produce and what documents and records show. The questionnaires were left with the respondents for five days to give them enough time to answer all the questions at will.

3.9 Data analysis

Data collected from the questionnaires, observations and interviews was carefully organized and analyzed. Analyzing the data consists of examining the database to address the research questions or hypothesis (Creswell, 2011). In this study, data was analyzed both qualitatively and quantitatively. Qualitative analysis emphasizes on qualities of entities and on processes and meanings e.g. change in behavior. Quantitative analysis is that which produces numerical data (Jwan & Onyondo, 2011). For qualitative analysis, the researcher organized the data thematically and categorized into themes in relation to the opinion, views and perception of the respondents (Mugenda and Mugenda, 1999). The following themes guided the data analysis;

Demographic data, Curriculum for learners with intellectual disabilities, teaching and learning resources, Strategies for teaching learners with intellectual disabilities, Teacher and pupil factors affecting teaching of adaptive skills and Adaptive skills taught to learners with intellectual disabilities.

Materials for a particular theme were put together. The qualitative data was first coded and entered into SPSS spread sheet and screened for error. This was because of its efficiency to handle large amounts of data upon the researcher establishing relevant categories (Ciara & Miller, 2009). Content analysis was used to analyze the data obtained by use of interview schedules and observation checklist (qualitative data). According to Cooper (1996), content analysis is appropriate for analyzing content of a communication. The researcher was therefore convinced that content analysis was most appropriate to describe the information collected during interviews and observation. Quantitative data was analyzed and presented in form of descriptive analysis through use of tables, bar graphs and pie charts. Results were given in form of mean, frequency and percentages and tabulation to show factors that affect acquisition of adaptive behavior skills among learners with intellectual challenges in selected primary special schools and units Thika Municipality.

3.10 Logistic and Ethical Considerations

The researcher obtained research permit from the permanent secretary, National council for Science Technology and Innovation, through the Dean, School of Post Graduate Studies and the Kenyatta University Ethics Committee before conducting the research. The Kiambu County Commissioner's Office and The Kiambu County Education Office were served with a copy of the permit to know that the particular candidate will be conducting research in the named schools. Permission for the same was granted by the above named Offices. Preliminary visits were made to the

institutions of research to establish rapport with the administration and other respondents. Every visit to the schools involved was through the head teacher of the school in question. The researcher held brief meetings with all the participants. During the meetings he informed them that he wanted to conduct an educational research their participation was voluntary. He also informed them that any participant was free to withdraw at any time during the research. He also informed them that any data collected would be destroyed and they were not supposed to write their names in the questionnaires since whatever information they gave would be treated as confidential.

CHAPTER FOUR

FINDINGS, PRESENTATION AND DISCUSSION

4.0 Introduction

The aim of the study was to investigate the factors affecting acquisition of adaptive behavior skills among learners with intellectual disabilities in selected primary special schools and units in Thika Sub County, Kiambu County, Kenya.

This chapter describes the analysis of the data collected from the field. The analysis of the data was guided by the study objectives and discussions were provided in comparison to available literature on the subject. The study was specifically guided by the following objectives: investigate curriculum used for learners with intellectual disabilities in Thika Sub County, explore teaching/leaning resources used for learners with intellectual disabilities, identify teacher factors and teaching strategies for enhancing acquisition of adaptive behavior skills among learners with intellectual disabilities and to establish learner factors affecting acquisition of adaptive behavior skills among learners with intellectual disabilities.

The analysis started with the demographic information. The data analyzed was obtained from the teachers, head teachers, EARC coordinator and the observation checklist.

SECTION ONE

4.1 Demographic results

In this section, a description of the study sample is presented in order to provide a clear background of the subsequent study findings. Information was collected from 3 head teachers, 7 teachers, 36 pupils and the EARC coordinator. Questionnaires were

used to collect information from teachers and head teachers. A checklist was used to collect information on pupils' performance and an interview was held between the researcher and the EARC coordinator to collect information on teaching of adaptive skills in the Sub County. All the questionnaires were filled and returned.

4.1.1 Gender

Teachers and the head teachers were asked to state their gender and findings are as displayed in Fig 4.1 below.

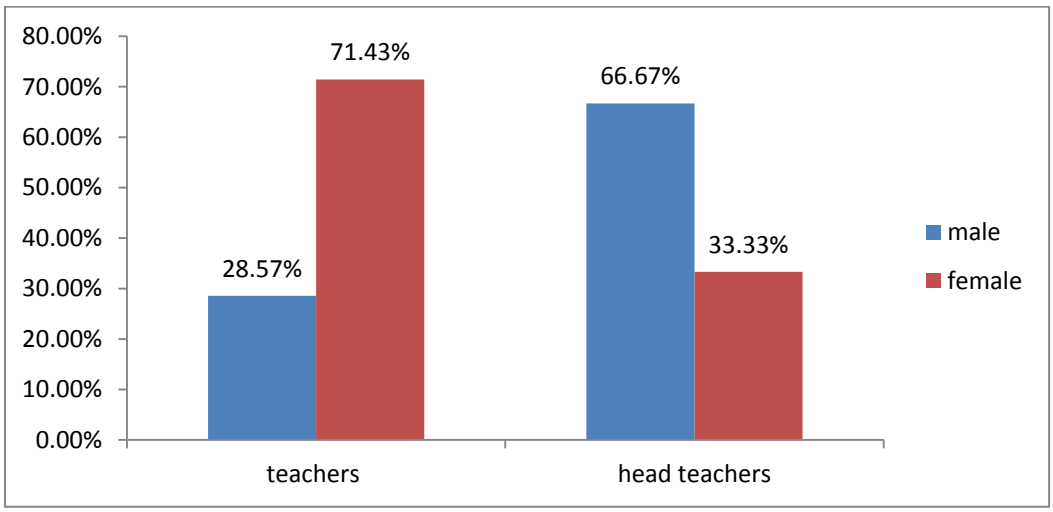


Fig 4.1 Respondents' gender

Figure 4.1 shows that majority of the teachers were female while two thirds of the head teachers were male. This implies that male teachers dominate the leadership positions in these schools while majority of the teachers are female.

4.1.2 Number of pupils in class

Teachers were asked to state the number of pupils in their respective classes. Fig 4.2 displays the results.

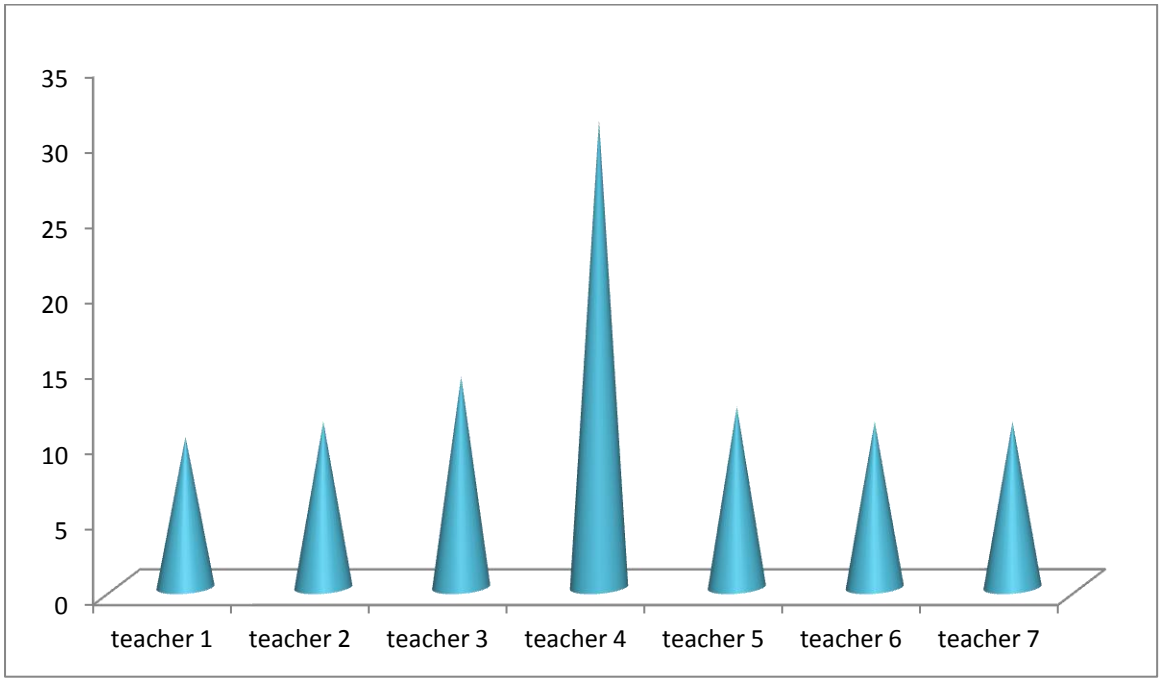


Fig 4.2 Number of pupils taught by each teacher (N=7)

From the findings in Fig 4.2, the highest number of pupils in a class was 31 as reported by teacher 4. However, majority of the classes had between 10 and 15 pupils. This implies that majority of teachers had manageable class size. This should help to facilitate and manage these classes easily.

4.1.3 Age of pupils

The researcher recorded the age of the pupils involved in the study as indicated in their admission register.

Table 4.1 Pupils' age by group stratus and frequency (N=36)

Pupil's age	**1-6**	**7-10**	**11-14**	**OVER 15**	**TOTAL**
Units	2	14	**5**	**0**	**21**
Special school	**0**	**0**	**5**	**10**	**15**
Frequency	**2**	**14**	**10**	**10**	**36**
%	**5.5**	**38.9**	**27.8**	**27.8**	**100**

The results in Table 4.1 showed that most pupils in special schools who were offered adaptive skills lesson as a subject were over the age of 15 in special schools while those from units were between ages 11 to 14. This is because these pupils join the special schools after transfer from regular schools and units and therefore have advanced in age. However, in units the lessons were taught at an early age (7-10) while the rest were between age 1-6. In units the lessons taught were self care, feeding, and other lighter skills like toileting. Special schools teach all these skills with more intensity including vocational skills which cannot be handled by very young learners. Gargiulo (2009) stated age as one of the pupil factors that affect acquisition of adaptive skills among learners with intellectual disabilities. Aged pupils can handle vocational skills better than their younger counterparts.

4.1.4 Duration of learners in the units/levels

The study investigated how long the learners had stayed in one unit (in special units) and in one level (in special schools).

Table 4.2 Year of admission in units, time in units and frequency (N=36)

YEAR OF ADMISSION	TIME IN UNITS	FREQUENCY	PERCENTAGE
2010	6	15	41.7
2011	5	8	22.2
2012	4	6	16.7
2013	3	3	8.4
2014	2	2	5.5
2015	1	2	5.5
TOTAL		**36**	**100**

The results in Table 4.2 showed that most learners had stayed in the same unit or level for six years or more since admission. Slightly less than a quarter of the pupils had stayed in the same unit for 5 years and about a fifth for 4 years while only a small number (less than a tenth) had been in the same unit for less than 3 years. The least number of children had been in the units for 1 and 2 years. This can be caused by repetition of pupils in one class for several times since they had not acquired the skills they were supposed to acquire in the units resulting to over aged learners in the schools under the study.

4.1.5 Professional qualification, level of training and teaching experience

4.1.5.1 Professional qualification

Teachers were asked to state whether they had been trained in special education. The results are shown in table 4.3

Table 4.3 Teacher's Level of Training (N=7)

	FREQUENCY	**PERCENTAGE**
DIPLOMA	5	71.43
GRADUATE	2	28.57
TOTAL	**7**	**100**

Teachers were asked to state their highest level of training. The results in Table 4.3 showed that more than two third of the teachers were diploma trained while about one third of them were graduates. The implication is that teachers are well qualified to handle learners with intellectual disabilities. When asked whether they had been trained in special needs education, all the respondents reported they had passed through a complete special needs curriculum and therefore qualified to handle special needs cases such as intellectually challenged learners. Training of teaching personnel is vital because lack of it may lead to poor perception and negative attitudes towards learners with disabilities (Mbae, 2015).

Table 4.4 Head teacher's level of training

SCHOOL	TRAINED	UNTRAINED	TOTAL
UNIT A	YES		1
UNIT B		YES	1
SPECIAL SCHOOL	YES		1
FRQUENCY	2	1	3
PERCENTAGE	66.6	33.3	100

The results in Table 4.4 showed two thirds of the head teachers in the schools under the study were trained in special education but a third of them were untrained.

This could mean that although most teachers were trained in special education, lack of training on the side of their head teachers could lead to poor management of special education since the head teachers don't have knowledge in special education. These head teachers don't know what happens in the units and they only rely on the SNE teacher on any information concerning the units. The findings conform to Ruteere (2009) who found that most units for learners with special needs are headed by head teachers who are not trained in special needs education. Training in any field is crucial for the sake of gaining the skills/knowledge needed to perform the duties assigned to oneself. In addition, special education training is important to educators, since it helps them to handle learners of all kinds whom they will encounter in their profession (Mbae, 2015).

Table 4.5 Teaching Experience

Experience	11-20	Over 20	Total
Frequency	6	4	10
Percentage	60	40	100

4.1.5.2 Teaching Experience

The study further intended to establish the teaching experience of the respondents. Respondents were therefore asked to state their teaching experience in years.

The results in table 4.5 show that majority of the teachers and head teachers had had a teaching experience of 11 to 20 years while a few of them had taught for over 20 years. This indicates that majority of teachers have been in teaching job for a long period of time. Though teaching experience should contribute towards better acquisition of adaptive skills, it seems to be affected by other factors like negative attitudes and therefore leading to poor acquisition of adaptive skills. In the literature review the researcher stated that negative attitude negatively affects acquisition of adaptive behavior among learners with intellectual disability.

SECTION TWO - FINDINGS

4.2 OBJECTIVE ONE: Curriculum in place for learners with intellectual disabilities

In this objective, the study intended to investigate whether there was curriculum in place to teach adaptive behavior skills to learners with intellectual disabilities. Various avenues were explored from teachers, pupils and the head teachers to achieve this objective.

4.2.1 Learners with intellectual disabilities

Teachers and head teachers were asked to state whether they had learners with intellectual challenges in their respective schools. All the respondents admitted that they had such learners in their system. This implies that the researcher's choice of schools was informed and therefore expected to provide relevant information regarding adaptive behavior in their curriculum.

4.2.2 Types of adaptive skill taught

Respondents were further asked to state the types of adaptive skills they teach in their respective schools. Table 4.6 displays the results of the findings:

Table 4.6 Adaptive skills taught (N=10)

Types adaptive Skills	**Frequency**	**Percent**
personal hygiene	10	24.39
toilet training	7	17.07
social communication	6	14.63
courtesy	6	14.63
good grooming	5	12.20
leisure and recreation	3	7.32
knitting and making mats	2	4.88
wood work	1	2.44
perceptual training	1	2.44
Total	**41**	**100**

Note; respondents recorded more than one response

According to the results in Table 4.6, personal hygiene was taught by most respondents followed by toilet training. This was followed by social communication and courtesy while about a tenth of them taught good grooming. A few of the respondents taught leisure and recreation. Only a small number of the respondents taught knitting and making mats. Wood work and perceptual training was taught by the minority of the respondents. The indication is that personal hygiene, toilet training, social communication, courtesy and good grooming were popular adaptive skills mentioned in the study. However, other important skills such as leisure and recreation, hand work and wood work were least emphasized in the curriculum implying that the curriculum used in these schools was not adequately equipped with aspects of such adaptive skills for learners with intellectual disabilities. In chapter two, the researcher stated social skills, self help skills, safety and money handling skills as some important adaptive skills to learners with intellectual disabilities. These children need these skills to make them live an ordinally life like their non disabled counterparts.

4.2.3 Practical teaching

The researcher observed some ongoing lessons to see if the adaptive skills indicated were really taught to learners as indicated. The finding was that most teachers in the specials school actually stick to teaching of adaptive behavior skills but those in units tend to follow the regular curriculum. This is because learners in units are mixed up and have divisive challenges. This gives little consideration to the learners with intellectual disabilities who cannot cope with the regular curriculum.

Gargiulo (2009) supports functional curriculum for learners with intellectual disabilities where learners with intellectual disabilities can be taught adaptive skills since they do not gain from the regular curriculum which is not the case with most units with learners who are intellectually disabled.

4.3 OBJECTIVE TWO: Teaching/learning resources used in teaching learners with intellectual disabilities

To establish whether availability of resources significantly affected teaching/ learning of learners with intellectual disabilities, the study explored various aspects from teachers, head teachers, and the special education coordinator. The study employed various avenues to come up with the results i.e. observation, interview guides and questionnaires.

4.3.1 Adequacy of resources in schools

Head teachers were asked to state whether their respective schools were well equipped to assist learners with intellectual disabilities.

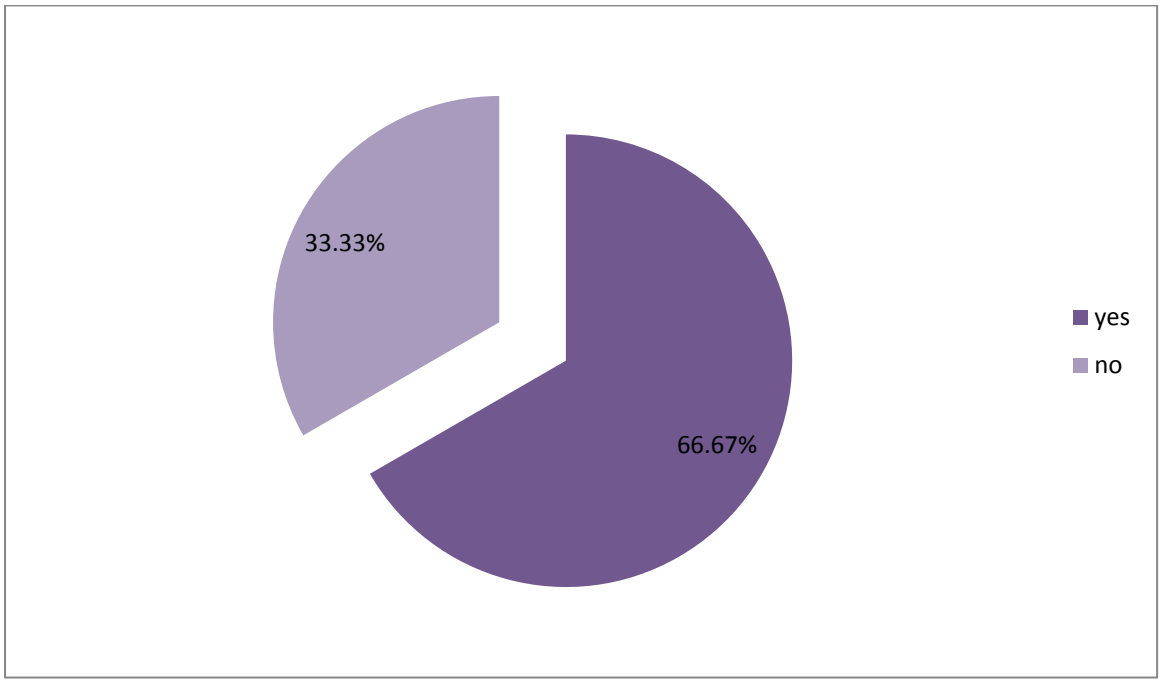


Fig 4.3 Adequacy of resources

According the results in Figure 4.3, majority of the head teachers said that the resources were adequate while a few of them said they were not adequate. To ascertain this, the researcher employed an observation checklist displayed in Table 4.7.

Table 4.7 School learning environment observation checklist

Aspects	**F (%)**		
	Adequate	**Inadequate**	**Non**
Availability of learning resources	33.33	66.67	0
Use and adaptation of resources to learning in a heterogeneous class	33.33	66.67	0
Level of interaction between teachers and learners	100	0	0
Interaction with other pupils	100	0	0
Participation of learners in activities	100	0	0
Documents and admission register	100	0	0
Class attendance register	100	0	0
Examination records	100	0	0
Progress records	100	0	0

From the observation checklist in Table 4.7, it can be deduced that obvious records such as registers and examination records were there. Participation and interaction between teachers and among pupils was present. However, learning resources were inadequate as observed from the schools visited by the researcher. Moreover, use and adaptation of resources to learning in a heterogeneous class was also found to be

inadequate with more than two thirds having minimal of such noble commodities. This did not match with the head teachers' claim that the schools were well equipped with resources to assist teaching learners with ID. This could mean that the head teachers could have decided not to expose some weaknesses in their schools. Heward (2000) supports the study by stressing that material for teaching learners with intellectual disabilities should be enough in order to enable learning.

4.3.2 Materials used to teach adaptive behavior

Teachers were asked to state the materials they used to teach adaptive behavior skills. Their responses are displayed in Table 4.8

Table 4.8 Materials for teaching adaptive behavior (N=7)

Material	Frequency	Percent
Pictures & books	4	23.5
Charts	4	23.5
Drawings	3	17.6
Own items	2	11.8
Washing pails	1	5.89
Brooms	1	5.89
Cooking items	1	5.89
Clothing	1	5.89
Total	17	100

Note; respondents had more than one response

From the results in Table 4.8, it is depicted that pictures, books and charts were the major materials teachers used to teach adaptive behavior skills. Drawings were also notable materials mentioned in the study followed by own items. Other non-obvious materials mentioned include washing pails, brooms, cooking items and clothing. From the reality point of view, books and charts are common materials that are used by

children who do not have challenges such as intellectual disability. Learners with intellectual disabilities would however, need more specialized materials such as those for toilet training, participation in games and simpler objects like sticks and self-made objects. The results also tell us that many teachers do not follow the functional curriculum recommended for learners with intellectual disabilities. They tend to follow the regular curriculum where material used is easily within reach and easy to manipulate for the teacher. Makumi (2010) supports this study by saying that equipment and supplies of teaching materials should be adequate and available to enable teachers and pupils achieve success in the teaching and learning processes.

4.3.3 Shortage of teaching materials

Teachers were asked whether they experienced frequent shortage of teaching materials. Fig 4.6 displays the findings.

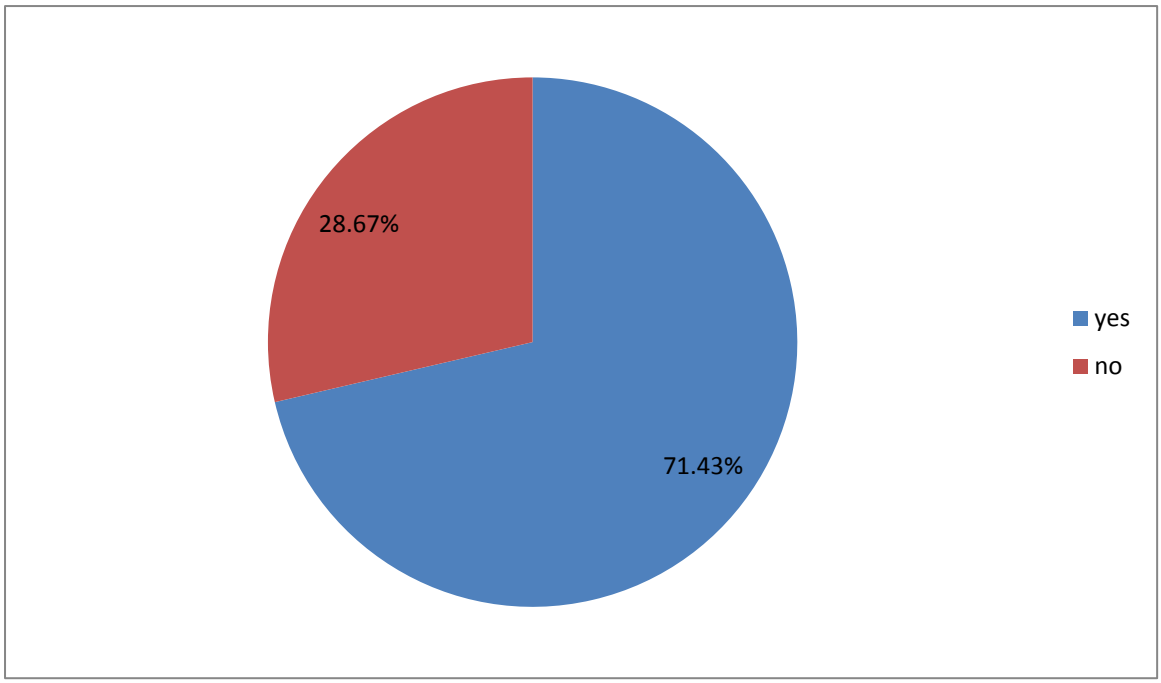


Fig 4.4 Shortage of teaching materials (N=7)

According to Figure 4.4 about three quarters of the respondents reported that they experienced shortage of teaching materials while about a quarter of them were of the view that shortage was not frequent and did not affect day to day operations. The implication is that majority of the schools with intellectually disabled learners experience frequent shortage of teaching materials, a situation that was found to affect teaching of adaptive behavior skills. Kimeu (2012) states that lack of resources is a major constraint in teaching of adaptive skills. With meager teaching resources, not much can be done in teaching of adaptive skills despite the skills being very vital to learners with intellectual disabilities.

When asked to state where they get assistance when experiencing shortages, respondents gave the comments displayed in Table 4.9

Table 4.9 Assistance to reduce shortage of resources and their frequency (N=10)

Assistance	**Frequency**	**Percent**
Donation from well wishers	5	50
Provision from parents	3	30
Free education	2	20
Total	10	100

The findings on Table 4.9 established that schools sought half assistance from donors; parents provided a few of the materials and the government's contribution was the least. Edgington (1998), supports use of material when he states that making use of wide range of material available encourages sharing and turn taking. The government should make more contribution to ease shortage of teaching material.

4.4 OBJECTIVE THREE: Teaching methods and strategies to enhance acquisition of adaptive behavior skills

The study further intended to establish the teacher factors that influence teaching of adaptive behavior skills. The study employed multifaceted approaches to achieve this objective. This involved observations, questionnaires to teachers and also the head teachers in the respective schools where the study was conducted.

4.4.1 Teaching methods

Respondents were asked to state methods and strategies used in class. Table 4.10 displays the main methods that were mentioned by the respondents.

Table 4.10 Teaching methods and strategies (N=75)

Method	Frequency	Percentage
Role play	20	26.7
Peer support	20	26.7
Practical work	10	13.4
Dramatization	10	13.4
Discussion	5	6.7
IEP	5	6.7
Question & answer	5	6.7
Total	75	100

Note; respondents recorded more than one response

From Table 4.10 it can be observed that most popular methods were role play and peer support. Practical work and dramatization were also popular to an extent. Discussion, IEP and question & answer were the least popular. To make teaching methods effective teachers need to use various strategies such as IEP and task analysis

(Klein & Cook 2011). None of the teachers mentioned task analysis and other strategies they use in teaching adaptive skills which have been emphasized in the preceding literature review.

4.4.2 Assessment of pupils

Teachers were asked to state the way in which they assessed their pupils' acquisition of the skills taught. Table 4.11 displays the findings.

Table 4.11 Methods used to assess the acquisition of skills (N=7)

Type of assessment	**Frequency**	**Percent(N=7)**
Observation	6	35.29
practical demonstration	5	29.41
question & answer	3	17.65
check list	1	5.89
score cards	1	5.89
oral work	1	5.89
Total	17	100

Note; respondents recorded more than one response

The results in Table 4.11 showed that majority of the respondents used observation as the method of assessing their pupils in acquisition of skills taught. Practical methods were also used by many teachers who participated in the study. Question & answer was used by slightly less than a fifth of the respondents. Other methods of assessment seemed to be quite unpopular among the respondents with only a few mentioning them. This implies that teachers may not be assessing acquisition of adaptive skills adequately since they seem to rely on only a few methods of assessment.

4.4.3 Opinions of teachers on methods of enhancing acquisition of skills

Teachers were further asked to state the methods that they opined can be used to enhance acquisition of skills taught in class. Table 4.12 displays the findings.

Table 4.12 Methods that can be used to enhance acquisition of skills

Teaching Method	Frequency	Percent(N=7)
Peer mentoring	3	27.28
Child centered methods	2	18.18
Practical work	2	18.18
Group Work	1	9.09
Multisensory approach	1	9.09
IEP	1	9.09
Participatory methods	1	9.09
Total	11	100

Note; respondents had more had one response

Table 4.12 shows that Peer mentoring was the most profound method teachers felt can promote efficient acquisition of skills taught in class. Moreover, respondents mentioned child centered methods as the next most popular method same as practical work. Other methods mentioned and least used were use of small groups, multisensory approach, IEP and participatory methods. This implies that given chance teachers would use such methods to enhance achievement of skills including adaptive skills among learners with intellectual disabilities in their respective schools. It could further imply that some factors in the school like lack of provision of learning materials by the school management may be hindering the utilization of efficient methods that teachers deem important especially when dealing with special cases such as learners with intellectual disabilities. This can be caused by lack of knowledge among those who head schools with learners who have intellectual disabilities. According to Ruteere (2009) the main problem in teaching adaptive behavior lies on

lack of trained personnel in schools teaching learners with intellectual disabilities. In this case, although the teachers are trained the heads of the institution are not trained leading to lack of effective collaboration in some instances.

4.4.4 Challenges teachers face in teaching adaptive behavior skills

The study intended to establish the perceived challenges that hindered teaching of adaptive skills especially to learners with intellectual disabilities. Teachers and head teachers were asked to mention the major challenges they felt undermined their intention of teaching adaptive skills. Table 4.13 displays the responses given.

Table 4.13 Challenges teachers face in teaching adaptive skills (N=100)

Challenge	Frequency	Percent
Inadequate resources	8	29.62
Short memory	7	25.93
Lack of time	5	18.52
Lack of conducive environment	4	14.82
Behavior disorders	3	11.11
Total	27	100

Note; respondents recorded more than one response

The results in Table 4.13 showed that more than a quarter of the teachers felt that inadequacy of resources was the biggest challenge they faced in teaching adaptive skills. About a quarter of the respondents felt that short memory among learners was another big challenge while less than a fifth of the teachers felt they lacked time to teach adaptive skills. Slightly more than a tenth stated lack of conducive environment while about a tenth stated behavior disorders as some of the challenges they faced. In addition to the above mentioned factors the researcher sought to establish teachers' attitude towards teaching of pupils with intellectual disabilities. To get this information, an interview was held with the EARC coordinator in charge of Thika

Sub County. The EARC reported that many teachers had poor attitudes towards teaching of adaptive skills. According to Parasuram (2006), teacher attitude is one of the most important variables in the education of children with disabilities. Teacher attitude has a lot of effect because it determines how much effort the teacher will put to make sure that learners acquire the required adaptive skills.

4.5 OBJECTIVE FOUR: Learner factors affecting the teaching of adaptive behavior skills

The study sought to establish the factors associated to learners that affect teaching and learning of adaptive behavior skills. The study employed various strategies to unearth this particular aspect in different dimensions and in reference to different kinds of respondents.

4.5.1 Learner factors affecting performance

The teachers were asked to state factors that affected pupils' performance in adaptive skill

Table 4.14 Learner factors affecting performance and their frequency

Factors stated	Frequency	Percentage
Age	7	26.9
Absenteeism	7	26.9
Severity of challenge	6	23.07
Lack of self motivation	4	15.38
Effect of other challenges	2	7.75
Total	26	100

Note; respondents recorded more than one response

The results in Table 4.14 showed that according to teachers, age and absenteeism contributed as the biggest determinants of acquiring adaptive skills. Reasons suggested were that aged pupils could handle and manipulate materials needed for adaptive skills while absenteeism was also common in some pupils with other

challenges who needed to seek medical attention now and then. Severity of challenge was another major contribution since pupils with more severe cases of intellectual challenges could not perform given tasks even after a long time. Other factors that contributed to affect performance were lack of self motivation and effect of other challenges e.g. in case of multiple challenges where other body parts were affected. Makumi (2010) concurs with this study by stating that uniqueness on the child with intellectual disabilities is responsible for his or her need for special education and that uniqueness is also worth exploration.

4.5.2 Pupils' involvement in adaptive behavior skills

Teachers were asked to comment on whether pupils they teach fully participated in performing adaptive behavior skills. Responses are displayed in Fig 4.5

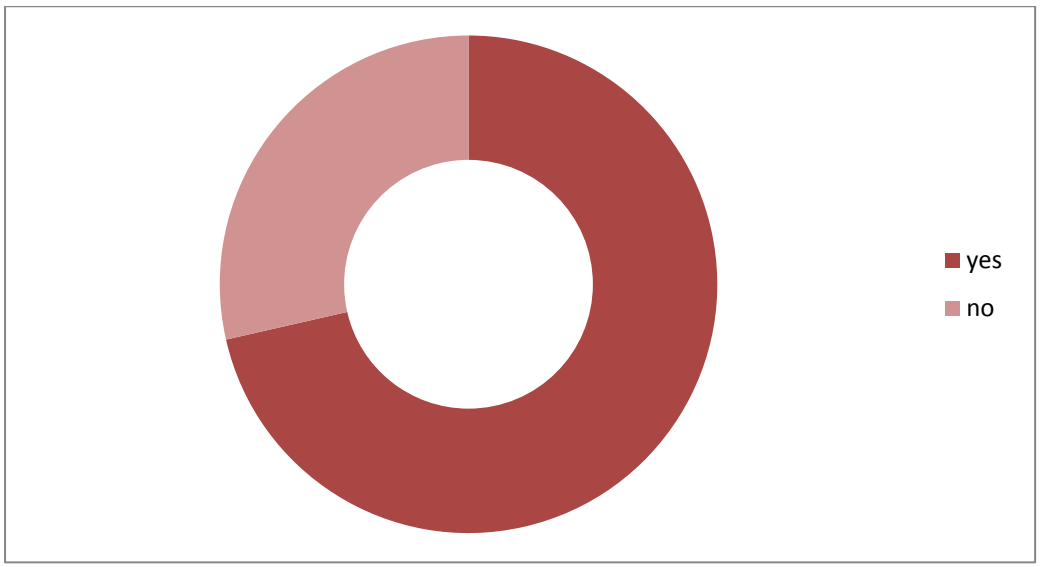


Fig 4.5 Pupils involvement in performing of adaptive skills (N=7)

According to the results in figure 4.5, majority (about three quarters) of the teachers admitted that their learners fully participated in performing of all adaptive behavior skills taught while a few (about a quarter) of them indicated that some of the pupils did not fully participate. However, from the findings, it was clear that any adaptive

skill that learners learnt, they practiced it confidently. When pupils have a positive attitude towards learning, they are likely to acquire the skills learned easily.

4.5.3 Assessment of adaptive behavior skills observed from learners

The researcher conducted an observation study to establish the ability of learners to perform various adaptive skills in their normal day to day activities. The researcher observed the learners without interfering with their activities hence the observation was so unobtrusive. Table 4.15 displays the responses.

Table 4.15 Learners' ability to perform adaptive skills. N=36

Adaptive skill	F (%)	
	Able	**Not able**
Brushing teeth	61.11	38.89
Washing hands	61.11	38.89
Combing hair	47.22	52.78
Use of handkerchief	47.22	52.78
Identifying spoon	91.67	8.33
Name types of food	69.44	30.56
Use of table manners	44.44	55.56
Name of their teacher	72.22	27.78
Names of parents	75.00	25.00
Names of classmates	66.67	33.33
Buttoning and unbuttoning	52.77	47.23
Dressing and undressing	44.44	55.56
Tying shoe laces	38.89	61.11
Days of week	38.89	61.11
Activities at school	93.33	6.67
Identifying different denominations	38.89	61.11
Calculating total cost	25.00	75.00
Ability to calculate change	16.67	83.33
Average	**54.72**	**45.28**

According to Table 4.1.5, on average, more than a half of the learners could perform the adaptive skills listed in this Table while slightly less than a half were unable. Though, those who could perform the adaptive skills were marginally above those who could not perform, the proportion of learners who could not perform simple adaptive skills was still high, implying that skills were either not adequately taught or the children had serious intellectual disabilities that were difficult to handle for the teachers. Some of the adaptive skills that the learners were able to perform well included: recalling names of classmates, recalling names of parents, recalling of their teachers, remembering activities at school, identifying spoon and identifying names of different types of food all of which recorded an approval of about two thirds. However, money handling skills were the poorest performed as established in this study; for instance, only a quarter of the learners could calculate total cost and worst of all only a small number had ability to calculate change. The implication is that learners had a big deficit as far as mathematical skills were concerned. Gargiulo (2009), identifies factors that influence individual in performance of adaptive skills behavior as chronological age, severity and etiology of the disability among others.

4.5.4 Interview guide with Education assessment and Research Centre Coordinator

Qualitative analysis was necessary to reinforce the quantitative data. Qualitative research in education involves study of spoken and written representations and records of human experience, using multiple methods and multiple sources (Punch, 2009). In this study qualitative data was collected through interview with the EARC coordinator, lesson observation and class records. Open ended questions, in the questionnaire, were also used to collect qualitative data where opinion of the respondents was needed. The EARC coordinator reviewed that there were ten special

units and two special schools in the Sub County. The total number of pupils with special needs was 326 most of whom had intellectual disabilities. This is a factor which the researcher had considered before choosing to conduct his research in the given area.

The coordinator reported that all the teachers teaching the learners with special needs were trained but a few had not been trained in special needs education. She also reviewed that teachers faced challenges like inadequate teaching material and infrastructure among others. She was also frank to cite negative attitudes towards teaching of adaptive skills as a negative effect towards teaching of adaptive behavior skills in some schools. Teacher attitude plays a great part in teaching of learners with disabilities, (Panasuram, 2006).

The coordinator reported that she involved herself by talking to the relevant authority to ease the challenges. She also reported that teachers within her jurisdiction actually taught the adaptive skills amid the challenges they faced. She reviewed that she usually made sure that correct methods were followed by carrying out regular assessment.

4.5.5 Lesson observation schedule

The lesson observation revealed that teachers in special schools teach adaptive skills more seriously than those in special units. In special schools, pupils learn more advanced adaptive skills like basketry, woodwork and making table mats. Pupils in units are a mixed group with diverse needs and the teacher cannot give attention to one group more than others. Pupils in special schools tend to advance in age and as they advance, they are able to handle more complex skills. Though teachers in special schools and units use various methods and strategies to teach adaptive skills, they are

faced by the challenge of shortage of teaching material. Pupil factors such as short attention span, communication difficulties and multiple challenges were reported by teachers to have a negative effect on these learners. This results in pupils gaining the skills partly and taking more time to learn basic life skills. Teaching of adaptive skills needs more material and practical work.

Documents like class registers, admission registers confirmed that these learners start going to school at advanced age, undergo a lot of repetition in classes and there was a lot of absenteeism due to other challenges like poor health. Progress and examination records showed that many learners were not performing well in simple life skills even after having being taught severally.

Where teaching material was available and the skills were taught effectively, the learners enjoyed as they performed the skills.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

The chapter describes the summary, conclusion and the recommendations of the study findings. The study was on factors affecting acquisition of adaptive behavior skills among learners with intellectual disabilities in selected primary special schools and units in Thika Sub County, Kiambu County, Kenya. The study adopted a descriptive survey design using both qualitative and quantitative approaches. The study found that adaptive behavior skills were not adequately taught leading to poor acquisition of adaptive behavior skills in the area. The summary was done according to the research objectives.

5.1 Summary of the results

5.1.1 Demographic characteristics of the respondents/participants

According to results in Figure 4.1 majority of the teachers were women but two thirds of the head teachers were male which portrays male dominance in leadership. Figure 4.2 shows that the number of pupils per class is manageable; however, most these pupils cannot perform adaptive skills. According to Table 4.1 and 4.1.3 analysis most learners with intellectual challenges are over aged due the age at which they are taken to school and due to repetition in classes. Table 4.3 indicates that majority of the teachers were graduates and a few of them were diploma trained. So they should be capable of handling cases such as intellectual challenges. According to table 4.4 some head teachers were not trained in special education yet they are heading schools with such learners. So, such head teachers have little knowledge on the needs of learners with intellectual challenges. Table 4.5 shows that about two fifths of the respondents had a teaching experience of 11 to 20 years while about three fifths had an experience

of over twenty years. This means that these teachers are experienced but there are factors hindering them from teaching adaptive skills effectively.

5.1.2 Curriculum available for teaching learners with intellectual disabilities

For objective one, the findings of this study found inadequate aspects of adaptive skills in the curriculum currently used in the surveyed schools. For instance, Individualized Educational Programme (IEP), which is one of the most important strategies favoring learners with intellectual disabilities, was used by only a tenth of the teachers. This implies that emphasis on use of IEP as a compulsory instructional technique was missing in the curriculum. Other strategies which support teaching of adaptive skills e.g. task analysis and scaffolding were not mentioned. However, other methods such as role play and peer support were mentioned though by less than half of the respondents. Interestingly, when teachers were asked to mention methods they felt would foster better delivery of adaptive skills to intellectually disabled learners, IEP was the major strategy teachers mentioned they would use. The implication is that management of these schools could be failing their duty of ensuring curriculum is delivered to special education learners.

Every good curriculum for learners with intellectual challenges should contain daily living skills. Trained teachers should identify and use correct methods to teach daily living skills, a fact that the current researcher concurs with.

5.1.3 Teaching/learning resources used in teaching learners with intellectual disabilities

For objective two, the findings of this study established that teachers and learners have been struggling with inadequate resources for teaching learners with intellectual disabilities. In fact, more than half of the respondents admitted that resources were

inadequate for running normal school activities. In the observation checklist, only common materials such as class register were found to be adequate in all the schools under survey. Moreover, the materials used to teach adaptive skills were found to be common tools that failed to cater adequately for intellectually disabled learners. For instance, books, pictures and charts were common materials that were mentioned by respondents. These materials cannot sorely assist learners with intellectual disabilities to acquire important adaptive skills. Moreover, teachers admitted that these materials were in constant shortage. Though the head teachers claimed that resources for teaching adaptive skills were adequate, further research showed that this was not so. This can be the reason why many learners cannot perform some adaptive skills even after being taught for a long time.

Availability and adequacy of wide variety of instructional resources and from many sources can stimulate the interest and active engagement of learners with intellectual disabilities.

5.1.4 Teacher factors and teaching strategies affecting acquisition of adaptive behavior skills

Mechanisms employed by teachers in delivery of lesson, evaluation of learners and interactions were also found to affect learners with intellectual disabilities. For instance, majority of teachers used observation method to evaluate achievement of learners, which the study finds to be a good way of establishing whether learners were practicing what they were taught. However, the researcher raises doubt in use of this method since it is unlikely that few available teachers can effectively observe many pupils simultaneously. The implication is that teachers may be using some good methods of evaluation though inefficient and ineffective at times. In fact, less than a

third of teachers admitted they used practical methods, which means majority of the teachers did not use practical based assessment.

Majority of teachers in special school and units use ineffective methods and approaches such as lecture, look and say among others due to lack of training. Moreover, lack of resources both human and material is a major constraint to curriculum implementation.

Another major problem is how special schools and units for learners with intellectual disabilities are run. Some of the head teachers have not been trained in special needs education yet they head these schools and units. They have to rely on the teachers handling these classes to know resources needed.

5.1.5 Learner factors affecting acquisition of adaptive behavior skills among learners with intellectual disabilities

The findings of this study were that learner-based factors played some part in disruption of adaptive behavior skills acquisition. However, more than half of study respondents admitted that their learners enjoyed the teaching and the practice of adaptive behavior. Moreover, majority of the learners observed during the study were able to perform most of the skills they were taught under natural conditions. However, aspects of money handling skills such cost calculation and ability to calculate change were found to be inadequate. Learners performed best in remembering their names, names of parents, teachers, food and common household utensils such as spoons. Some had short memory and short attention span.

However, age was seen to be a major determinant on whether a learner could perform certain skills. This was more so in vocational classes where majority of the learners were above age 15 and were able to acquire certain skills effectively such as knitting.

Severity of the disability also plays an important part on whether a learner can perform certain skills. This was noted in some cases where some learners could not perform some skills even after being taught for a long time.

According to the study, absenteeism also affects learners' achievement in some skills This is more so in cases where learners have to seek medical help especially in cases of multiple challenges. Demands and expectation of in the special class are adapted to the learners' special behavior and factors such as chronological age, severity and etiology of the disability among others influence individual behavior.

5.2 Conclusion

The conclusion of this study was made according to the objectives and the findings of the study.

Objective one sought to investigate curriculum in place for learners with intellectual disabilities in Thika Sub County. It was noted that the special schools and units for learners with ID follow a special curriculum in which they teach various adaptive behavior skills. However, it can be concluded that the current curriculum lacks adequate content needed to help them to acquire skills that can help them to cope with their daily lives. These skills are referred to as adaptive behavior skills. Important skills such as money related skills, vocational skills and leisure time are less emphasized in the curriculum while they are useful skills for learners with ID. Important strategies of teaching adaptive skills such as IEP, task analysis, and modeling and applied behavior analysis were either missing in the curriculum or were not emphasized. Objective two sought to explore teaching/learning resources used to tech learners with intellectual disabilities. There was lack of teaching/ learning resources which would make it easier for learners with ID to acquire important adaptive skills. Majority of teachers in the study stated lack of teaching resources as a

factor leading to learners with ID not acquiring adaptive behavior skills. Equipment for games, toilet training and leisure time were lacking. Objective three sought to identify teacher factors and teaching strategies that affect teaching of adaptive behavior skills. Teacher factors such as use ineffective methods of teaching, lack of effective strategies and lack training in special needs education has negatively affected acquisition of adaptive behavior skills among learners with ID in Thika Sub County. Some head teachers were not trained in special needs education, yet they are heading special schools and special units for learners with intellectual disabilities. Objective four sought to establish learner factors that affect teaching of adaptive behavior skills such as severity of disability, age of learners and etiology affect acquisition of adaptive behavior skills due to absenteeism and inability to handle learning materials. The study concludes that there is ineffective teaching of adaptive behavior skills in most of the units and special schools leading to poor acquisition adaptive behavior skills.

5.3. Recommendations of the study

5.3.1 Policy Recommendations

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

(i) The study revealed that most teachers do not use recommended strategies which could enhance teaching of adaptive behavior skills. To improve teaching of adaptive behavior skills, the EARC coordinator should make sure that these strategies are used by conducting regular inspection.

(ii) The study found that most units are headed by untrained teachers. TSC should post teachers trained in special needs education to head Special schools and units for learners with intellectual disabilities. The head

teachers play vital role in proper implementation of the curriculum by teachers and needs to know what the teachers handling these learners are doing.

(iii) TSC should post specialist teachers to handle learners with intellectual disabilities. These are the teachers who can be entrusted to teach adaptive skills to learners with intellectual disabilities. Teachers should not be posted to schools for learners with intellectual disabilities merely because they have some knowledge in special education.

(iv) The Cabinet Secretary for education should ensure that there are enough resources to facilitate teaching of learners with intellectual challenges by providing enough funds and making follow up on how such fund was used.

(v) The KICD should enrich the general curriculum by incorporating adaptive behavior skills in the syllabus to cater for learners with mild intellectual disabilities and define curriculum for special schools and units teaching learners with intellectual disabilities

5.3.2 Recommendations for further research

(i) The study was carried out within three schools in Thika Sub County which is just a small part of Kiambu County. The researcher would recommend similar studies to be carried out in other parts of Kiambu especially the neighboring sub counties like Juja and Ruiru.

(ii) The study was carried out in units and special schools for the intellectually disabled. Due to emphasis on inclusion, there are other children with mild intellectual disabilities who have been mainstreamed in regular schools.These learners are made to follow the regular curricular which does

not put their challenges in consideration. The researcher recommends a similar study to be carried on ‘the effects of inclusion on teaching adaptive behavior skills among learners with mild intellectual disabilities’.

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APPENDICES

APPENDIX I: Head Teacher's Questionnaire

This questionnaire is intended to seek information concerning teaching of adaptive behavior for intellectually disabled learners. It will only be used for the purpose of the study so involved. Any information given will not be used for any other purpose rather than this study.

Your name is not required

PART ONE: PERSONAL AND GENERAL INFORMAITON

1. Name of your school ……..……
2. County…….Sub-county …… Zone ……
3. Gender: Male …….. Female ……...……
4. Indicate you're a) teaching experience…….**.....** b) professional qualification……
5. Have you been trained in special needs education……? Indicate level……
6. Year when the school was established …….
7. School location …….
8. Type of streams: Single …… Double ……
9. Number of streams by class

Class	1	2	3	4	5	6	7	8
Streams								

10. Number of teachers in the school by January, 2015 ……

11. Pupils' enrolment by grade by January, 2015.

Class	1	2	3	4	5	6	7	8
Streams								

12. Number of pupils who have dropped out last year…….....**.....**

Class	1	2	3	4	5	6	7	8
Streams								

What are the possible causes of drop out?

Your views towards strategies used by teachers in teaching adaptive behavior skills.

13. Are there pupils with intellectual challenges in your school? ……

14. If yes, in which way do teachers assist these pupils in the class (Tick any)

(a) Individual attention ……..……

(b) Remedial instruction ……..……

(c) Computer technology …….……**...**

(d) IEP ……

Other types of help? (Specify) ……

15. Is your school adequately equipped to handle learners with intellectual disabilities?

Yes ☐ No ☐

16. Do teachers in your school teach adaptive behavior skills? ……

17. List types of adaptive skills taught

(i) ……
(ii) ……
(iii) ……
(iv) ……

18. Name methods & materials used to the following skills

Self-care……
Social skills……..
Functional academics……..

19. How do teachers assess pupils to measure whether the pupils have gained the skills?

……

20. Comment on the challenges faced by teachers in teaching adaptive behavior skills.

……

21. In your views, how useful are the skills taught ……

……

22. Give your general view on teachers' attitude towards pupils with intellectual disabilities in your school.

……

APPENDIX II: Teacher Questionnaire

This questionnaire is intended to gather information that will be used to build general information on strategies of enhancing acquisition adaptive behavior skills for intellectually disabilities learners. It contains both structured and unstructured questions. It has 2 sections. The first section will be used to fill teacher's personal information while the second section will be used to fill the teacher's view towards strategies used in teaching of adaptive skills. Any information given will be treated confidentially and for the purpose of this study only. Your name is not required.

Please tick or fill where necessary.

Part A: Personal and General Information;

1. Gender: Male ( ) Female ( )
2. Name of your school …….
3. Number of pupils in your class ……
4. Highest professional qualification

   P1 certificate ( ) Diploma trained ( )

   Graduate ( ) Others ( ) Specify ……
5. Have you been trained in special needs education ……

   Indicate level of training…….
6. Indicate your teaching experience in years

   Less than two 2 ( ) 2 – 5 ( ) 6 – 10 ( ) 11-20 ( ) over 20 ( )

Part B: Your views on strategies used in teaching adaptive behavior skills.

1. Do you have pupils with intellectual challenges in your class? ……
2. Indicate methods and content you use in class …….

   List types of adaptive behavior skills taught in your school …….
3. How do you assess your pupils' acquisition of the skills taught? ……
4. Name challenges you experience in cause of teaching adaptive behavior skills

   ……
5. What resources and materials do you use when teaching adaptive behavior skills?

   ……
6. Do you experience shortage of resources and materials in teaching adaptive behavior skills? …… what assistance do you get and from who? ……..
7. Do pupils enjoy teaching adaptive behavior skills? …….

   What problems do you experience from the pupils during instructions ……..
8. How do you measure the pupils' achievements after teaching? ……
9. According to you, are these skills taught useful in their lives? ……..
10. Comment on the challenges you face and possible solutions ……
11. What is the average age of the pupils in your class?.....
12. Suggest methods that you can use to enhance the acquisition of skills taught in your class……..
13. State pupil factors that seem to affect acquisition of adaptive skills in your class.

    ……..

    ……

APPENDIX III: Interview Schedule for EARC Coordinator

This interview schedule in intended to gather information that will be useful in building a general description on strategies of teaching learners with intellectual disabilities some selected adaptive behavior skills.

Any information provided will be treated confidentially and for the purpose of this study only. You don't have to write your name.

What services are provided by EARS?

(a) Early identification ☐
(b) Intervention ☐
(c) Assessment ☐
(d) Referral ☐
(e) Education Placement ☐
(f) Follow up services ☐
(g) Creation of awareness to the public ☐
(h) Opening special schools and units ☐

Others (specify) ……

1. How many special units are there in the sub county? ……

   Give the name and location…….

	School	**Location**
(a)	…….	……..
(b)	……	……..
(c)	……	…….
(d)	……	…….
(e)	…….	……..

2. How many special schools do you have for the intellectually disabled ?……

   Give name and location

	School	**Location**
(a)	…….	……
(b)	…….	……
(c)	……..	…….

3. How many children do the units and special schools have per schools

School	**No. of pupils**	**Teachers**
……	……..	……
……	……	……
……	……..	……..
……..	……	……..
……	……	……
…….	……..	…….

4. Are all teachers handling the units and special schools trained? …….
5. What challenges do teachers handling these pupils experience? ……

   ……

   How do you assist the teachers? ……
6. Do teachers in sub county teach adaptive skills to learners with intellectual disabilities ?.....
7. How do you ensure that the teachers in your school use the correct methods of teaching adaptive behavior? …….

APPENDIX IV: Lesson Observation Schedule

(To be filled by the researcher while observing the lesson's proceedings)

The purpose of the instrument was to find out how teachers assist pupils with intellectual disabilities during the lesson. It was to seek information regarding the strategies used by teachers in teaching selected adaptive behavior skills by teachers.

General information about the teacher and school.

Date: …… School: ……

Class: …… No. of pupils ……

PART ONE

1. Teacher professional qualification …….
2. Teaching experience in years ……..
3. Gender: Male ☐ Female ☐

Observation of the lesson proceeding

4. Does the teacher give attention to the pupils? …….
5. In which way does the teacher organize the pupils during the lesson proceedings?
   1. Individually ☐ 2. In pairs ☐ 3. In groups ☐
      4. Whole class ☐
   2. Others specify ……
6. What methods dos he teacher use in teaching …….
7. What skills does the teacher teach?

(i) Academic ☐ (ii) Adaptive skills ☐

8. Are the materials used in teaching adequate for the lesson? ……

9. What problems does the teacher experience due to learners ability in learning the skills?

   ……..

10. What materials does the teacher use? …….

	Yes	No
Text books	…….	…….
Charts	…….	…….
Modes	…….	…….
Others (specify)	…….	…….

11. Do pupils seem to gain the skills taught? …….…….

12. How can you rate the lesson?

    A. Very effective

    B. Slightly effective

    C. Not effective

13. What improvement would you recommend for the lesson? …….

    ……

PART TWO Lesson observation schedule

(lesson follow up activity)

The following observation checklist was used to check how far a pupil has acquired the adaptive skills already taught. It was a part of lesson observation schedule and was filled as a lesson follow up activity.

Check list one

ASSESSMENT OF SELECTED ADAPTIVE BEHAVIOR SKILLS

SCHOOL……. **DATE…….**

AGE…… **DURTION IN UNIT/SCHOOL….**

CHILD'S NAME…… **DATE OF ADMISSION……..**

ADAPTIVE SKILL	ABLE	NOT ABLE
PERSONAL SKILLS -Brushing teeth -washing hands -Combing hair - use of handkerchief		
FEEDING -Identifying spoon, plate etc -name types of food -use of table manners		
SOCIAL AND COMMUNICATION --name of their teacher -names of parents -names of classmates		
DRESSING -buttoning and unbuttoning -dressing and undressing -tying shoe races		
TIME MANANGEMENT -days of week -activities at school		
MONEY -Identifying different denominations -calculating total cost -ability to calculate change		

General Comments……

APPENDIX V: Observation checklist for schools and learners' school learning environment

The following checklist was used to check school learning environment and was filled by the researcher as the lesson proceeds.

Check list two

	ADEQUATE	**INNADEQUATE**	**NON**
Availability of learning resources			
Use and adaptation of resources to learning in a heterogeneous class			
Level of interaction between teachers and learners			
Interaction with other pupils			
Participation of learners in activities			
Documents and admission register			
Class attendance register			
Examination records			
Progress records			

APPENDIX VI: STUDY BUDGET

S. Nos	PARTICULARS	AMOUNT
1.	Self Sponsor	200 000
	Expenditure	
2.	Stationary	40 000
3.	Printing	60 000
4.	Travel & substance	50 000
5.	contingency	50 000
	TOTAL	200 000

APPENDIX VII: Authorization Letter

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

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

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

Ref: No. **NACOSTI/P/15/36169/7988**

Date:
4th December, 2015

Kinuthia David Solomon
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Strategies for enhancing acquisition of adaptive behavior skills among learners with intellectual challenges in Thika Sub county, Kiambu County, Kenya,"*** I am pleased to inform you that you have been authorized to undertake research in **Kiambu County** for a period ending **1st November, 2016.**

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

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

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

Copy to:

The County Commissioner
Kiambu County.

The County Director of Education
Kiambu County.

N OFFICE OF THE PRESIDENT

MINISTRY OF INTERIOR AND CO-ORDINATION OF NATIONAL GOVERNMENT
COUNTY COMMISSIONER, KIAMBU

Telephone: 066-2022709
Fax: 066-2022644
E-mail: countycommkiambu@yahoo.com
When replying please quote

County Commissioner
Kiambu County
P.O. Box 32-00900
KIAMBU

Ref.No: **ED.12/1/VOL.111/68**

15th December, 2015

Kinuthia David Solomon
Kenyatta University
P. O. Box 43844 - 00100
NAIROBI

RE: RESEARCH AUTHORIZATION

Reference is made to Kenyatta University letter Re No. **NACOSTI/P/15/36169/7988** of **4th December, 2015**.

You have been authorized to conduct research on ***"Strategies for enhancing acquisition of adaptive behavior skills among learners with intellectual challenges in Thika Sub-County", in Kiambu County, Kenya".*** The data collection will be carried out in Kiambu County *for a period ending* ***1st November, 2016.***

You are requested to share your findings with the County Education Office upon completion of your research.

N. J. KOMORA
FOR: COUNTY COMMISSIONER
KIAMBU COUNTY

Cc County Director of Education
KIAMBU COUNTY

National Commission for Science, Technology and Innovation
P.O. Box 30623-00100
NAIROBI

APPENDIX VII: RESEARCH PERMIT

THIS IS TO CERTIFY THAT:
MR. KINUTHIA DAVID SOLOMON
of KENYATTA UNIVERSITY, 262-1000
THIKA,has been permitted to conduct
research in *Kiambu County*

on the topic: *STRATEGIES FOR ENHANCING ACQUISITION OF ADAPTIVE BEHAVIOR SKILLS AMONG LEARNERS WITH INTELLECTUAL CHALLENGES IN THIKA SUBCOUNTY, KIAMBU COUNTY, KENYA*

for the period ending:
1st November,2016

.....
Applicant's Signature

Permit No : NACOSTI/P/15/36169/7988
Date Of Issue : 4th December,2015
Fee Recieved :Ksh 1000

.....
Director General
National Commission for Science, Technology & Innovation

CONDITIONS

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

REPUBLIC OF KENYA

NACOSTI

National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No. A 7425

CONDITIONS: see back page