

**FACTORS THAT HINDER PROMOTION OF AUTISTIC CHILDREN INTO
INCLUSIVE EDUCATION IN PUBLIC PRIMARY SCHOOLS IN KENYA; A CASE OF
INTEGRATED SCHOOLS IN NAIROBI COUNTY.**

BY

KIAMA VERONICAH WAITHIRA

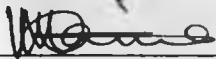
**UNIVERSITY OF NAIROBI
KIKUYU LIBRARY
P. O. Box 92
KIKUYU**

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENT FOR THE MASTER OF ARTS DEGREE IN PROJECT PLANNING
AND MANAGEMENT, UNIVERSITY OF NAIROBI.**

2012

DECLARATION

This research project is my original work and has not been presented for a degree in any other University.

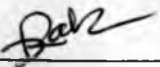
Sign: 

Date: 23rd JULY 2012

Kiama Veronicah Waithira

L50/77104/2009

This research project has been submitted for examination with my approval as a University Supervisor.

Sign: 

Date: 23rd July 2012

Supervisor: Esther Magambo

Lecturer

School of Continuing and Distance Education

University of Nairobi

DEDICATION

I dedicate this piece of work to my husband Charles and my children, Maureen, Paul and Christine.

3.4 Sampling procedure.....	27
3.5 Methods of data collection.....	28
3.6 Validity.....	29
3.6.1 Reliability of the measurement.....	29
3.7. Operationalization of variables.....	31
3.8 Methods of data analysis.....	32
3.9 Summary.....	32
CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND INTERPRETATION.....	33
4.1 Introduction.....	33
4.2 Questionnaire return rate.....	33
4.2.1 Demographic information.....	34
4.2.2 Teaching experience of teachers and principals /head teachers.....	35
4.2.3 Academic levels of both principals/head teachers and teachers.....	36
4.3.1 Substitutes for physiotherapy equipment.....	38
4.3.2 Use of the available resources.....	39
4.3.3 Effect of physical facilities on promotion of autistic learners.....	40
4.3.4 Adequacy of learning materials.....	40
4.3.5 Availability of teachers and others people who handle the autistic class.....	41
4.4 Instructional methods.....	42
4.5 Special training for teachers.....	44
4.5.1 Ways in which autism course would help.....	45
4.5.2 Reasons for not undertaking autism course.....	45
4.6 Teachers' attitude towards autistic learners.....	46
4.7 An overview interview with the Principals.....	47
4.8 Parents' attitude.....	49
4.9.1 Finding out the age and gender of the child.....	49
CHAPTER FIVE: SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS.....	52
5.1. Introductions.....	52
5.2. Summary of the findings.....	52
5.2.1 Resources.....	52
5.2.3 Teachers qualifications.....	53
5.2.4 Teachers attitude.....	53
5.2.5 Parents attitude.....	54

5.5 Recommendations	57
5.5 Suggestions for further research	58
REFERENCES	59
APPENDIX II: TRANSMITTAL LETTER	66
APPENDIX III: TEACHER'S QUESTIONNAIRE	67
APPENDIX IV: PARENTS QUESTIONNAIRE	71
APPENDIX V: INTERVIEW GUIDE FOR PRINCIPALS/HEADTEACHERS	73
APPENDIX VI: FORM	75

ABBREVIATIONS AND ACRONYMS

ASA	Autism society of America
ASD	Autism Spectrum Disorder
ASK	Autism society of Kenya
CWD	children with disabilities
FPE	Free Primary Education
GOK	Government of Kenya
HRC	Human Rights Commission
IDEA	Individuals with Disabilities education Act
IE	inclusive education
IEP	Individualized Education Programme
KISE	Kenya institute of special education
MOEST	Ministry of education, science and technology.
NGO	Non governmental organization
OSEP	Organization of Special Education People/persons.
PDD - NOS	Pervasive Developmental Disorders- Non Otherwise Specified
PDD	Pervasive Developmental Disorders
TSC	Teachers Service Commission
LRE	Least Restrictive Environment
MRC	Medical Research Council
UNESCO	United Nation Education and Research Council

ABSTRACT

This study was intended to establish the factors that hinder the promotion of autistic children into inclusive education in Kenya. There is growing concern about autism in Kenya as an emerging area which is receiving education in some of the public schools in special needs education units in Nairobi as a distinct category of disabilities.

Five questions were raised which were intended to give the findings as to why autistic children are not promoted to inclusive education. Descriptive Survey design was used for this study. This is an exploratory approach which involves collecting information by interviewing and administering a questionnaire to a sample of individuals. This is the most convenient way for the researcher to reach all the respondents and the respondents had the freedom to read and fill the questionnaires with ease. This research gathered information from principals/head teachers, teachers and parents. Sample of five teachers per school and one principal/ head teacher per school participated in the study. All the listed schools were selected through purposive sampling because the population is small but has the required information. The teachers and parents was sampled randomly using simple random by counting one to five and one to ten respectively so as to get a representative group.

Results of the study show that resources for autistic learners (50%) and unqualified teachers (54%) in the area of autism are a major hindrance in the promotion of autistic learners into inclusive learning. These findings confirm that besides teachers, physical facilities and learning materials in many schools were not appropriate for children with Autism (50%).

Classes in the public schools need restructuring (50%) which requires finance and this could be a hindrance on the side of the school because the funds given for disabled children amounts to 0.2 % which is not enough for all what is required for effective learning. More teachers need to be trained in autism (83%) and the learning environment needs to be structured so as to accommodate the autistic learners. There is need for further research to be done in the regular classrooms to find out the teachers attitude towards inclusion of children with autism in inclusive education.

CHAPTER ONE

INTRODUCTION

1.1 Background information.

Thesaurus defines Autism as a pervasive developmental disorder characterized by severe deficits in social interaction and communication by extremely limited range of activities and interests and often by presence of repetitive, stereotyped behaviors’.

Autism society of America (A.S.A, 2011) defines autism as a complex developmental disability that typically appears during the first three years of life and is the result of a neurological disorder that affects the normal functioning of the brain, impacting development in the area of social interaction and communication skills. Both children and adults with autism typically show difficulties in verbal and non verbal communications, social interactions and leisure or play activities.

Autism is a brain development childhood disorder characterized by impairments in social interaction, communication, restricted and repetitive behavior, all manifesting before the age of three and continues till adulthood (Fuadai, 2010). Autism has been identified as one of the five Pervasive Developmental Disorders (PDD) (World Health Organization, 2006) and “Autism is one of the categories in special education and is a serious, lifelong and disabling condition and without the right support it can have a profound effect on individuals and families.”

Special Education is any Educational services offered to children with special needs. The deviation must occur to such an extent that the child requires modification of the school practices to develop ones unique capabilities (UNESCO, 1988). American Individuals with Disabilities Act, defined persons with disabilities as a person who has physical or mental impairment that substantially limits that person’s participation in major life activities (Shea and Bauer, 1994). This qualifies autism as one of the disabilities among the intellectually challenged and it affects 3-6 children in every 1000 children. These children belong to heterogeneous group with unique problem which limits the effectiveness of the Childs academic, social and emotional expectations.

Early psychogenic theories that viewed autism as an emotional disorder have given way to more recent conceptualizations of autism as a developmental disability (Fuadai, 2010). The number of reported cases of autism increased dramatically in the 1990s and early 2000s prompting researches on autism. This increase is largely attributable to changes in diagnostic practices, referral patterns, availability of services, age at diagnosis and public awareness. Result of this is identification of autistic children who are receiving special education in City primary school, Buruburu 1 primary school, Kasarani primary school, Kilimani primary school, Ruthimitu primary school and also in the special education schools like Mathare special school.

In Kenya, autism is affecting approximately 4% of the Kenyan population though no proper records to justify the numbers (A.S K, 2006). Nobody really knows what exactly causes autism. Many children with this disorder are kept hidden at home, as there are few or no schools which accommodate them for learning purposes. Over the years, there have been no educational programs offered for autistic persons in Kenya. However, this changed immediately when an autism unit was recently opened at the City Primary School, Ngala, Nairobi, in September 2003 with a donation of special catering equipment from the Safari COM Foundation (Autism society of Kenya, 2006). Other units have since been opened in Buruburu, Kasarani, Mathare special, and Ruthimitu School but they are not enough and those available do not promote the autistic pupils to the inclusive education.

To the maximum extent possible, children with disabilities should be educated with regular education children so there is need to put autistic learners into inclusive education. This will help the autistic learners learn from their peers. This study looked into the factors hindering promotion of autistic children into inclusive education.

1.2 Statement of the problem.

Kenyan education policy embraces education for all hence introducing an inclusive education setting where all children regardless of their disabilities learn together in the public schools. To this regard an autism class was started in City primary school in 2003, in Nairobi ,through a group of parents initiative (ASK, 2007). This led to the start of autism classes in a few integrated public primary schools in Nairobi with an intention of including these children in the inclusive education system. Unfortunately, these children are retained in the special education class with

only five who have managed to be promoted to inclusive education class up to standard four. So this study intends to find out why these autistic children cannot progress into the next level of education. Five factors have been considered so as to get results of this problem.

A survey reported in the East African standard (Muuya, 2007) stated that there was shortage of special education teachers, and lack of infrastructure in Kenyan public schools which created barrier for special education needs children. There is need to find out if the same factors could be a hindrance to promotion of autistic children to inclusive education. (Wamae and Kamau, 2004) did a study on inclusion of hearing impaired into inclusive education and reported that attitude of teachers affected the inclusion of these children into regular classes. So it is important to find out if the promotion of autistic children could be affected by attitude of both parents and teachers.

In Kenya special education teachers are trained in KISE where an autism course has been introduced but this makes a small fraction of all the teachers required in the country. The challenge of qualified teachers could be another factor which in turn would lead to poor methods of handling these children and as such stagnation of the learners in the special class.

Education is a basic right and the (GOK, 2003) states clearly that all children should receive education in an inclusive education setting regardless of their disabilities. This creates the need to find out why this is not so for children with autism and why it has not been possible to promote these children to inclusive education.

1.3 Purpose of the study.

The study is intended to determine the factors that hinder the promotion of autistic children into inclusive education in Kenya.

1.4 Specific objectives.

1. To establish the extent to which resources hinder the promotion of autistic children into inclusive education in Nairobi County.
2. To determine whether qualification of teachers in autism education hinder promotion of autistic children into inclusive education in Nairobi County.
3. To asses if the instructional methods used by the teachers hinder promotion of autistic children into inclusive Education in Nairobi county.

4. To establish the extent to which teachers attitude hinders promotion of autistic children into inclusive education in Nairobi County.
5. To asses if parents attitude hinder their children from being promoted into inclusive education in Nairobi county.

1.5 Research questions of the study

1. How does resource hinder the promotion of autistic children into inclusive Education in Nairobi County?
2. In what ways does qualification of teachers hinder the promotion of autistic children into inclusive education in Nairobi County?
3. How do instructional methods used in teaching autistic children hinder their promotion into inclusive education in Nairobi County?
4. How does teacher attitude hinder the promotion of autistic children into inclusive education in Nairobi County?
5. How does parents' attitude hinder the promotion of autistic learners into inclusive education in Nairobi County?

1.6 Significance of the study

The study is significant in that it will endeavor to sensitize decision makers and all stake holders on existing set back. There is absence of clear guidelines and lack of legal status on autism education provision. Lack of policies and legislations makes autistic learners to be discriminated against. The results of the study may help the stakeholders to rectify on the poor implementation of the policy on inclusive education fully by training more teachers in special education and especially in autism. The government will use the results to see the need of giving more finances in educating children with autism. The results will also be useful to universities and teacher training colleges in imparting skills and strategies of teaching autistic children. The study may influence scholarly research for other researchers and may also help students who are interested in pursuing the course on autism.

1.7 Delimitations of the study.

The research is confined to Nairobi County because this is where schools with autistic children are found and are accessible. The study was confined to schools for children with autism because

these are the people who had the information required for the study. The school where the study was done was government sponsored schools because they have all categories of children who learn in natural setting without exaggeration.

1.8 Limitations of the study.

Population of autistic learners is very small and special education institutions dealing with autistic learners are very few and they are found in Nairobi which proves to be a real challenge. The selected samples depended more on teachers, principals/ head teachers and parents because the autistic children may not have the ability to read or write. The study was done in schools with classes dealing with autistic children because the other schools seem not to understand what autism is. In some schools, it was difficult to get information from some teachers and parents which required a lot of patience.

1.9 Assumptions of the study

Assumption of the study is that all respondents were cooperative and provided reliable responses. The respondents read the questionnaire and answered the questions correctly. The results of the study will be helpful to the stakeholders. The data collection instruments were reliable so as to give reliable and valid results.

1.10 Definition of significant terms.

The following are the significant terms used in the study;

Access has an opportunity to attend school.

Autism it is a brain development childhood disorder characterized by impairments in social interaction, communication, restricted and repetitive behavior, which manifests at childhood all the way to adulthood.

Chaining is putting the small subparts together to obtain the desired behavior.

Disability a physical, sensory, mental or other impairment which adversely affects on social, economic or environmental participation;

Disabled a learner who has impairment.

Discriminate	to accord different treatment to different persons solely or mainly because of their disabilities.
Inclusion	refers to unconditional placement of students in regular education system.
Inclusive education	process of including and educating children with disabilities with non Disabled children or comprehensive education system for all children.
Integration	attends a regular school and periodically joins an inclusive education but their home base remains the special education setting
Least Restrictive Environment	a setting with children who have no disabilities, or as near to such setting as possible, with special help and modifications provided to those who need it.
Mainstreaming	the student with disabilities is educated partly in a special education class and periodically join a regular class when their teachers believe they was successful, but their home base remains the special education setting.
Multidisciplinary	a team approach involving specialists in more than one discipline, such as a team made up of a physical therapist, a speech and language pathologist, a child development specialist, an occupational therapist, or other specialists as needed
Occupational therapy	treatment provided by an occupational therapist that helps individual developmental or physical skills that will aid in daily living; it focuses on sensory integration, on coordination of movement, and on fine motor and self-help skills, such as dressing, eating with a fork and spoon, etc.
Para-educators	teacher aides
Paraprofessional's	teacher aides.

Physical therapy treatment of (physical) disabilities given by a trained physical Therapist (under doctor's orders) that includes the use of massage, exercise, etc. to help the person improve the use of bones, muscles, joints, and nerves.

Promotion moving up to the next higher level.

Regular classroom a class where children without disabilities receive education.

Teacher aide they assist in taking care of the children in other activities other than Academic.

Upgrading promoting the child to the next level

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction.

This chapter looks at what autism is and the factors that are affecting promotion of autistic children into inclusive education. Autism is one of the categories of special needs education but generally not known in Kenya like the other forms of disabilities because it is an emerging issue. People perceive these children as mentally ill. Education of the autistic children is paramount depending on the severity of the disability. This review is important because it shows autism has been singled out from other disabilities and given a chance in education. Lengthy discussions of what autism is and various methods of teaching these children have been discussed in journals. Despite the research done it is not clear why these children cannot be included in the inclusive educations in public schools in Kenya.

2.2 What is autism?

Federal regulations in IDEA define autism as developmental disability affecting a growing number of children significantly affecting verbal and non verbal communication and social interaction generally evident before age three that adversely affects educational performance (Gelfand and Drew, 2005). Autism is characterized by irregularities and impairments in communication, engagement of repetitive activities and stereotyped movements, resistance to environmental changes or change in daily routines and unusual responses to sensory experiences (Lindgren, 2009)

Leo Kanner first described autism as a clinical syndrome in 1943 (Shea and Bauer, 1994). Since then the disorder has stirred a lot of interest in the research community. Number of reported cases of autism increased dramatically in the 1990s and early 2000s prompting researches on autism. Autism was once a rare disorder but has become so common that it is reputed as one of the fastest growing childhood disorders and the third most common developmental brain disorder (Audu and Olabisi, 2010). It can occur in any family irrespective of race, social status or religion. There is no known medical cure and researchers are yet to identify exact cause(s) of autism. In Nigeria, professional care is

practically not available for autistic children in schools and homes because teachers and parents are not aware of autism (Audu & Egbochuku, 2010).

Government of Kenya (2003) gave greater clarity (particularly driven by parents) to distinguish between different types of cognitive disabilities. A consequence of this was that children with autism spectrum disorder, for example, have now begun to be recognized as a distinct group requiring interventions best employed when they are not grouped together with children with intellectual disabilities (ASK, 2007). The Autism Society of Kenya particularly fronted an approach which would see the establishment of schools for children with autism independent of schools for children with intellectual disabilities in Kenya. A special unit at the City Primary School is one such intervention established by parents of children with autism (Human rights commission, 2007) but there is no promotion of autistic children into the inclusive education.

Gelfand and Drew (2005) pointed out that, early conceptions of autism were focused on children with severely impaired level of functioning. Scientist began to realize that children with Autism exhibit a far broader range of skill level of functioning. This has led to the term Autism Spectrum Disorders suggesting that there is a range of functioning in several skill areas e.g. communication and language, social interaction and intelligence, and developmental discrepancies (Gelfand, 2005). Autism has become the fastest growing category of special education since it was added to the Individuals with disabilities Education Act (IDEA) in 1990 (Kluth, 2003). In the decade following its addition to IDEA, the number of students identified as having autism increased from 5,000 to over 118,000 (Shea and Bauer, 1994). Since that statistic was reported, the numbers have continued to grow and this has occurred as a result of several factors;

First, the definition and diagnostic criteria for identifying autism has been expanded to include a range of abilities and presentations, and is now considered to be a spectrum of disorders.

Second, the Committee on Educational Interventions for Children with Autism, (National Research Council, 2001) recommended that all children with a diagnosis of ASD should be eligible for special education services under the category of autism, regardless of their level of impairment. Third, it has been proposed that study should take place to determine if the dramatic increase in the numbers of children served with autism has been offset by commensurate

decreases in other categories into which children with ASD might have once been placed such as other health impairment, social and emotional disability (Kluth, 2003). (Wing and Porter, 2006) noted that the increase was due to acceptance of ASD, increased awareness among practitioners, better identification, changes in diagnostic practices, referral patterns, availability of services, age at diagnosis and more sensitive assessment instruments.

2.3 Educating children with autism.

National Policy on Education specifically stipulates that there is need for equality of educational opportunities to all children irrespective of any real or imagined disabilities (Fuadai, 2010). Persons with disabilities have a right not to be discriminated against on grounds of disability and are entitled to enjoy all rights and freedoms and to participate fully in society (GOK, 2007). Much of the research on inclusion of students with autism has been conducted with young children. There is a lack of pertinent research on including students with autism at the middle school and high school levels (Fuadai, 2010).

Students with autism may differ considerably in their behavior but their learning and cognitive processes tend to be some what predictable and notably different from persons with other types of developmental disabilities. Defining characteristic of students with autism involves their ability to process information. (Whitbread, 2010) identified 10 processing and response problems that are inherent in students with autism and interfere with their learning. While these processing and response difficulties create instructional problems, they do provide teachers with an understanding of how students with autism learn. Students with autism might display a variety of inappropriate responses to tasks as a result of sensory overload, inability to focus on relevant information, lack of visual cues, and the inability to generate new responses to instructor requests. Armed with an understanding of how students with autism process information, teachers can structure the class environment in a way that facilitates appropriate responses. (Gronlund and Stokes, 2010) highlighted the need for structure when teaching students with autism. They stated that events space and time are three areas that should be organized and structured for students with autism.

2.3.1 Inclusive education

Guldberg (2010) defines inclusion as the process of identifying, understanding and breaking down barriers to participation and belonging, and therefore goes beyond education to cover the total experience of a child or young person on the autism spectrum and his/her family . This broad concept of inclusion highlights that it does not suffice to look only at 'within child' factors when addressing how to educate a child on the autism spectrum, but that it is equally important to make adjustments to the learning environment or the way that staff work (Guldberg and Buter, 2010).

Inclusion then becomes the process of including and educating a child in a way that recognizes and assesses that child's needs. It should happen in an environment where staff is willing and able to be flexible in terms of how the curriculum is delivered and to adapt the routines and physical environment within which the child is being educated. Interventions need to be child specific, based on careful assessment of the individual, and reflecting their strengths, interests and preferences (Harrower & Dunlop, 2001). There is a strong imperative to move away from the deficit model of disability and to promote the successes and potential of learners on the autism spectrum (Guldberg, 2010).

The Sessional Paper on education launched by the Ministry of Education in 2005 outlines Government policy on education and training. One of its objectives is the realization of universal access to basic education and training that ensures equitable access for all children including vulnerable and disadvantaged groups. It affirms education as a human right as well as restating the Government's commitment to provide every Kenyan with basic quality education and training. Sessional paper on education (GOK and ILO, 2003) observes that enrolment in special education programmes is quite low given that over 90% of children with special education needs are not in school, hence the need to put in place programmes and strategies to facilitate their education. To further remedy this state of affairs, the Sessional Paper like the report of the Task Force (2003) recommends inclusive education. In addition to this, it recommends the development of a special needs policy to cater for the learning requirements of children with special needs.

Over the past 15 years, educational inclusion has emerged as a key issue in educational policy both nationally and internationally. The Salamanca Statement, signed by 92 governments, (UNESCO, 1994) enshrined a commitment to adopt the principle of inclusion as a 'matter of law or policy'. Subsequent legislative changes in Kenya have sought to ensure that children with special educational needs (SEN) are educated in mainstream schools, with typically developing peers rather than in separate special schools 'unless it is incompatible with parental wishes or with the provision of efficient education for other children' (Education Act, 2003).

In the last decade, there has been a dramatic increase in the number of pupils with autism spectrum disorders (ASD) attending mainstream schools. However, particular concerns have been expressed about their inclusion, focused on an increased risk of peer rejection and lack of staff knowledge about appropriate teaching approaches (European agency on education, 2010). Parental views of inclusive placements are consistently more positive where there is an ASD resource base in the school (Frederickson *et al*, 2010).

Promotion to inclusive education is not very obvious for autistic children especially for the severe case. The reason being that it is difficult for autistic children to take in all the information presented by the new situation, determine what the expectations are and then generate appropriate responses. All the same, you will find that some of these children are not severely disabled and if they can be given a chance they can do well even in the inclusive education. A number of studies have demonstrated that teaching social and academic skills to children with autism together with their non handicapped peers in cooperative groups in integrated settings results in increased frequency, duration, and quality of social interactions (Harrower & Dunlap, 2001). The assumption generally made by school administrators is that the teachers are teaching correctly and the children are unable to learn (Koegel, 2001). Autistic children may need longer time to respond to cognitive and or motor difficulties making it impossible to teach them at the same rate with the other children thus retaining them in the special class (Ministry of Education, British Columbia, 2000).

In Kenyan public schools, there has not been real promotion to the inclusive education like the case would be with their peers who have no problem. In city primary school some autistic pupils who showed progress were incorporated in the inclusive education for about 30 minutes per day

together with the special education teacher and then back to the special needs class in 2007. Since then these children have reached standard four being fully incorporated to the inclusive education (researcher's observation). This shows the need to assess whether other schools are doing the same and if so at what rate and if not why? Understanding of what inclusive education really entails is very limited. One commonly held implication was that inclusive education simply entailed removing children with disabilities from special schools to ordinary schools; when, in fact, inclusive education concerns itself with teaching the disabled child in the environment best suited for learning in view of such child's disability considering the strengths and weaknesses (UNESCO, 2007). Second, there is feeling particularly amongst teachers and school administrators that the theory of inclusive education would not easily work for children with moderate or severe disabilities, if the requirement was that such children should learn in the same classroom with their non-disabled peers. The above journals fail to tell whether the autistic candidates are promoted to the inclusive education or not.

2.3.2 Resources

Education policy (GOK, 2003) observes that financing of special education still remains a major challenge for the Government. The Government spends only 0.2% of the total education budget on special education. Since this is clearly inadequate, most financing for special education has to be sought from local and international NGOs and other sponsors. In recognition of this shortcoming, the policy reiterates that given the Government's commitment to EFA by 2015, a framework incorporating financing requirements of special education was established. It is, however, important to note that the proposed policy to address financing challenges under the FPE programme is not very clear regarding measures to be put in place to address the challenges identified with regards to special education.

Muuya, (East African standard, 2007) sites shortage of resource materials and equipment for special needs children as one of the major drawback. Resource materials that are available are very expensive while others do not exist locally. IE requires support of both equipment and skills, and the resources required to cater for disabilities can be expensive and scarce. For example, some CWD require regular medical care which can only be provided by experts. Others require special teaching methods in which only a limited number of teachers have the expertise. Yet other cases require expensive equipment such as computers with specialized software. Costs

are shared among different authorities and parents depending on many factors related to both the character of the need and the different responsibility agreements among authorities (European agency, 2010). The network level is clearly dependent on the national level as legal regulation promoting IE is an important driving force. Projects including AT for education most often rely on external donors and rarely receive government funding. A paper presented during the (Regional seminar, 2007) noted that there was need for provision of curriculum support materials.

Physical facilities found in schools are restrictive making it impossible to accommodate autistic children into the inclusive education setting. Autistic children need facilities that are conducive for them because at times they are not able to maintain high levels of hygiene. Facilities like toilets are supposed to be specifically constructed for autistic learners and a high level of hygiene maintained. Learning facilities like desks are supposed to be designed in such a way that there is less distraction and are not restrictive in such a way that they can cause accidents (Regional seminar, 2007).

Education officials identify scarcity of resources as a major factor that excludes children from schooling (Muuya, 2007). Many children with disabilities who took advantage of the introduction of FPE in Kenya to join school eventually dropped out due to unconducive school environment occasioned by the lack of equipment and facilities (HRC, 2007). The Task Force (GOK, 2003) found out that besides teachers, physical facilities and learning materials and special needs teachers in many schools were not appropriate for children with disabilities, hence the recommendation that all schools be made barrier free to ease accessibility for learners in special needs education and to facilitate inclusive education (GOK, 2003 and Muuya, 2007). (Harrower and Dunlap, 2001) reviewed the research on behavioral analytic supports for students with autism in inclusive contexts and found that there are positive outcomes for many students with autism in inclusive settings if the required supports are in place.

2.3.3 Instructional materials

Instructional materials for autistic children include assistive technology where Assistive technology means any item, piece of equipment, or product system, whether acquired commercially, off-the-shelf, modified or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities. Assistive technology service is

any service that directly assists an individual with a disability in the selection, acquisition, or use of an assistive technology device (Stokes, 2010).

Typically, children with autism process visual information easier than auditory information. Any time we use assistive technology devices with these children, we are giving them information through their strongest processing area (visual). Therefore various types of technology from "low" tech to "high" tech should be incorporated into every aspect of daily living in order to improve the functional capabilities of children with autism (Stokes, 2010).

In the case of instructional materials, the curriculum for Kenya education is not flexible to accommodate special needs cases. The materials for learning and equipment for assessment may not be sufficient. Lack of sufficient resources has also led to staff shortages and inadequate training, with the effects of diminishing the efficacy of special education for all students with disabilities, including those with autism (Tuman, 2008). Also many teachers feel that inclusive education as a concept had been embraced at the policy level by the Ministry of Education while regular schools are ill equipped to cater for the educational needs of learners with disabilities. It has been found that whereas special schools for children with disabilities had inadequate facilities for vocational training, regular schools, including those with special units, lacked these facilities in totality. Those who have these facilities need sensitization on how to use them (Muuya, 2007). In the (Regional paper, 2007) for Eastern and Sub-Saharan Africa, it was reported that there is need for the provision of curriculum support materials. Also sighted that there was lack of clear guidelines in exclusion policy and there was no flexible delivery of curriculum to cater for children with special talents and abilities.

2.3.4 Instructional methods used for autistic children

Autism is a complex disorder that can take many forms. The laws applicable to autism are also complex. There are a number of autism programs but each child with autism is unique and truly needs a program tailored to suit his or her needs (Sherman, 2010). It was reported that (UNESCO, 2009) inclusive education emphasize the need to reinforce the role of working to improve their status and working conditions, develop mechanisms for recruiting suitable candidates and retaining qualified teachers who are sensitive to different learning requirements. Guldberg(2010) and Regional Seminar (2007) highlighted the need to focus on the unique

needs of the individual child, the importance of working in partnership with parents and other professionals, the creation of enabling environments and the need to focus on what we know about learning and development. It also needs to be based on having clear processes for identifying the individual child's needs and consideration of the key developmental areas in which a child on the spectrum will need additional teaching in order to optimize learning opportunities. Children on the autism spectrum disorder need strategies that enable them to negotiate the social environment, to communicate their wants and experiences and to understand the communications of other people, as well as strategies that can enable them to learn with and through peers. It needs to be recognized that these are developmental areas in which children with autism spectrum conditions will need direct teaching (Guldberg, 2010).

Teachers need to aim for individualization in the classroom to achieve inclusion. That is, students must be allowed a flexible curriculum to meet their individual needs for example; students with autism should be able to work at a slower pace than the rest of the class, or focusing more on particular issues crucial to their development and less on other students. This calls for a lot of patience on the side of the instructor. Students should also learn to apply constructive learning strategies for themselves instead of blindly repeating knowledge presented by teachers (Whitbread, 2010).

Most ATs are useful only when they are embedded in a learner-centered pedagogical environment. This includes a flexible curriculum where the learning activities of the students are in focus rather than the teaching activities of the teacher. Many AT are designed for learner-centered education, intended to make learning a challenging Teacher training as a field where much development needs to be done (Stokes, 2010). While some basic teacher training is generally available in developing countries, overall it needs to be expanded to cover IE related issues, such as social and community based rehabilitation (CBR) issues, and assistive technologies-related issues. Apart from training of new teachers, training of existing teachers is touted as the most important issue in a short-term perspective by all stakeholders found during the field studies (NGOs, teacher educators, government)(Stokes, 2010). Teacher training can be done in many ways. Formal training is one option and currently, some NGOs provide such training on a small scale. For the training to be scaled up to cover whole countries it is necessary that universities and teacher training institutes also include such courses in their programs.

Practical training as part of participation in CBR programs is also a feasible method that is provided on a small-scale by some NGOs currently. Beyond the coordination among ministries and teacher training at the national level, a successful implementation of IE requires the development of resource/knowledge centers and networks (Stokes, 2010).

TEACCH is structured teaching which is an approach in instructing children with autism. It allows implementation of variety of instructional methods (e.g., visual support strategies, Picture Exchange Communication System - PECS, sensory integration strategies, discrete trial, music/rhythm intervention strategies, Greenspan's Floor time and many others). It is one of many approaches to consider in working with children with autism. The law is that the methodology chosen by the IEP team should be appropriate and provide educational benefit. In some cases, a child with autism needs an integration of several methodologies (Regional seminar, 2007) to obtain an appropriate education. Teachers and parents of children with autism need to have knowledge of the various methodologies so that they can determine how to address the unique needs of the child. The mix of methodologies should be based on information about the child's learning readiness, capacity to generalize learning-readiness, skills to more independent settings, and mastery of the curriculum content (Siegel, 2010). It is important for teachers and parents to know the different methodologies because the child's unique needs will change with time, and the methodologies that are appropriate to teach the child may also need to change (Siegel, 2010).

Many of the autism methodologies are derived from the works of Pavlov, Watson and Skinner, the founders of behaviorist psychology. According to Pavlovian theory, conditioning is a fundamental building block of learning. Both animals and humans adapt to their environment through positive and negative experiences. Pavlov introduced the concept of "conditioned response" Watson applied the theory to humans. Skinner found that the human response is voluntarily controlled. Skinner determined that a desired behavior can be achieved through Operant conditioning by rewarding a random behavior that leads to a desired behavior. The theory that to achieve a desired behavior, there is an antecedent stimulus that can influence the response, which in turn leads to the consequence.

2.3.4.1 Applied Behavior Analysis (ABA)

Behavior interventions are applied to increase desired skills while decreasing problem behavior. Intensive use of applied behavior analysis for the education of very young children with autism has been reported to have beneficial effects on the development of these youngsters. Several authors have reported that roughly half of the children who receive early intensive behavioral intervention make major developmental gains (Harris and Handlemann, 2000). The person's behavior is assessed through observations that focus on exactly what the person does, when the person does it, at what rate, and what happens before (antecedents) and what happens after behavior (consequences). Strengths and weaknesses are specified in this way (Harshbarger, 2010). There are a number of methodologies that are offshoots or refinements of ABA and these are; Discrete Trial Training (DTT), Shaping and Chaining, Pivotal Response Training (PRT), Natural Environment Training, Music Therapy and teaching through play. Being supported to play in an inclusive setting is very important. Children with autism sometimes do not play their expected part in social interactions, not initiating the sharing of attention or stimulating plays (Theodorou, 2010). A large body of research indicates that children with autism's participation in recreational programmes have been found to help develop their social skills (Park, Sansosti, 2010). Whichever methodologies are used to educate ones child, one should have a measuring stick in place that will show whether or not the program is effective and whether the child is making progress (Sherman, 2010).

2.3. 5 Special training for the teaching staff

This is training of teachers on different areas of special needs education and in this case in autism education. Regional seminar held in Kenya, 2007 sighted that more teachers needed to be trained, teachers to be orientated in the new inclusive curriculum, need for regular in servicing of teachers and a component of special needs education be incorporated to all teacher education. Teachers trained at the Kenya Institute of Special Education (KISE) mainly use the additional training as a springboard for promotions, with no interest in teaching children with disabilities (GOK, 2003). Extra allowances teachers in special schools are paid amounts to 10% of the minimum basic salary of the teacher's grade. These allowances are only given to teachers with training in special needs education, who teach in either special schools or special units' but not

those with training who teach in the regular schools. Allowances for teachers in special schools without special education training were withdrawn with effect from 1st July 2006. The effect of this decision was to wrongly penalize teachers with valuable experience working in special schools who happened not to have gotten formal special education training and that this was not a proper way of ensuring that children with disabilities had effective exercise of the right to education (TSC, 2003).

Special needs education teachers are mainly trained at Kenyatta, Maseno Universities and KISE. Many teachers have either been trained at or are seeking admission to KISE, thereby highlighting the importance of this institution in ensuring quality education to learners with disabilities. However, practice on the ground demonstrates a huge deficit in terms of qualified trained teachers to service special education in view of a number of factors. Many teachers especially those in regular schools have no additional training in special needs education. This makes them ill-equipped to provide adequate and quality services to learners with special needs (HRC, 2007). Second, in order to deal with the huge demand for training, KISE has commenced a programme of distance learning. However, whereas the Government subsidized residential training, distance learning was fully self-sponsored, making training in special education quite costly and beyond the reach of many.

Qualified special needs education teachers are not enough. It was recently that the Kenya Institute of Special Education (KISE) introduced a specialized course in autism but the institution does not meet the demand for trained teachers. Therefore children with special needs continue to be handled by teachers who are not trained and some teacher aides who are not trained as teachers leave alone in autism. Hidden unwillingness by regular schools to accept pupils with severe disabilities has emerged as a major deterrent. "Parental choice also contributes to exclusion of children from schooling," (UNESCO, 2008). results indicate that one of the reasons why teachers are under-prepared for diversity (Merryfield, 2000) is the lack of knowledge, experience, commitment and understanding. A recommendation was also given (Ferreira and Graça, 2006) that, to take full account of the diversity of the current school population, the following aspects should be included in teacher education: learning difficulties and disabilities; emotional and behavioral problems; communication techniques and

technologies; symbolic representation, signification and multiculturalism; different curricula; teaching methods and techniques and educational relationships. To ensure culturally responsive teaching, (European education agency, 2010)) say that teacher education must include critical cultural self-reflection that takes place in a context of guided practice in realistic situations and with authentic examples and (Baglieri, 2007) proposed the incorporation of Disability Studies in teacher education. Larrivee (2000) highlights the importance of reflection, believing that when teachers become reflective practitioners, they 'move beyond a knowledge base of discrete skills to a stage where they integrate and modify skills to fit specific contexts, and, eventually, to a point where the skills are internalized enabling them to invent new strategies.

Most of the teachers, besides regular teacher training, have no additional training in special needs Education. Similarly, many special schools lack adequate teachers causing teachers in those schools to be overworked compared to their counterparts in regular schools without consequent equal compensation (KNCHR, 2007). A survey done by (MOEST and TSC, 2006) found stories abounded of teachers who after being deployed in a school for disabled children thinking it would be light work almost immediately sought transfers because of the extra demands of the work. At the same time, those trained at the Kenya Institute of Special Education (KISE) mainly used the additional training as a springboard for promotions, with no interest in teaching children with disabilities.

2.3.6 Teachers' attitudes towards autistic children.

Positive teacher attitudes are an important predictor of the successful education of children with disabilities, including those with autism spectrum disorders (Robertson *et al*, 2003). However, the severity and pervasiveness of ASD often leads to the teaching and inclusion of this group of pupils to be seen as complex. Even teachers of recognized professional competence often consider themselves less able to deal with these students than with those with any other form of special needs.

Many studies have sought to establish the nature of class teachers' attitudes. Most of these studies have in the past reported relatively unfavorable teacher attitudes towards working with pupils with special educational needs and a certain amount of unwillingness on the part of teachers to receive disabled children into their classes (Wamae and Kang'ethe, 2004). Teachers

may pass on messages of acceptance or disapproval, which may contribute to the success or failure of some interventions (Robertson, 2003). Attitudes are therefore an important factor which may influence the success or failure of interventions for autism. The study by the (Human Rights Commission, 2007) noted the feeling particularly amongst teachers and school administrators that the theory of inclusive education would not easily work for children with moderate or severe disabilities, if the requirement was that such children should learn in the same classroom with their non-disabled peers.

Inclusion movement has made scholars in special education, general education and social psychology pay attention to people's attitudes towards children with autism. Lack of exposure and understanding can result in people forming negative attitudes towards children with autism. More contact with individuals with autism can have a positive effect on the individual's attitude towards them. Park (2010) found that people who have friends with disabilities tend to hold more favorable attitudes towards them. As teachers can play a major role in the inclusion of children with autism in regular education settings, their attitudes towards autism are very important (Pearson, 2007). Pearson continues to state that, complexity of inclusive education should be accommodated by inclusion work on attitudes and beliefs in teacher education. Specifically, teachers' attitude can affect their expectations for their students, which influence student self-image and academic performance (Park, 2010).

Pre-service teachers in special education were found to have more positive attitudes than those in general education. The pre-service teachers majoring in special education tend to have more extensive learning experiences about and more contacts with children with autism, which might lead to more positive attitudes (Park, 2010). However, in order for an individual to have much more positive or higher level of attitudes the individual may need additional exposure to children with autism, such as volunteer work or teaching experiences. Social interactions with people with autism may play an important role in a person's attitudes Park continues. (European agency for development in special education, 2010) sighted that if the negative attitudes of teachers are not addressed during the initial teacher education, they may continue to hamper the progress of inclusive education efforts in schools.

Negative attitudes towards people with disabilities encourage parents to keep disabled children at home. A study carried out by Muuya (East African standard, 2007) on aims of special education schools, finds that many people, including teachers, expect pupils with special needs to spend their lives at home and not to work in school. This study will find out if teachers attitude have any effects on promotion of autistic children to inclusive educations in Kenya.

2.3.6.1 Para-educators (teachers' aides)

Research done (Simpson *et al*, 2003) suggested that availability of trained aides to support students with autism is a pivotal part of ensuring student success. They stress however those aides should only be used to support students directly when necessary and that at other times they are best employed working with other students on an 'as needed' basis. Training needs to be continuous, provided in both autism and collaborative consultation, and provided for general educators in group and individual formats depending on need. Simpson *et al* (2003) through paraprofessionals and teachers in-service training have stressed the critical importance of a positive, accepting attitude on the part of the whole school community for the success or otherwise of inclusion of students with special needs, including autism. The attitude of the school principal is critical in setting the overall tone or the attitude of the whole school. Parents of both disabled and typically developing students in the school are an essential part of the school community and their attitudes towards inclusion will influence the success or otherwise of the inclusion of students with disabilities.

Highly systematic approaches have been shown to be most effective for promoting interaction between children with autism and their typical peers continues Simpson, and gains made are more likely to be maintained in inclusive settings. It was stated (Avramidis, 2000) that shared responsibility by general and special educators and regular school community ownership of the included student(s) with autism has been minimal. Historically there has been little consultation with general education teachers prior to enrolment of students with disabilities, hence the term 'mainstream dumping'. shared responsibility is an essential underpinning to ensure success and that this is best achieved by effective communication, shared decision making and participatory management (Simpson *et al*, 2003).

2.3.7. Attitude of parents towards inclusion of their children

Parents' have a wide range of opinion related to the placement of children in educational settings. Some parents prefer and advocate for inclusive placement, while others favors separate placement (Elkins *et al*, 2003). As the trend towards inclusion grows, one of the chief concerns of parents is the protection of support services for their child. parents were more concerned about the degree to which their child's individual education plan (IEP) actually addressed the needs of their child when the child was being educated in an inclusive setting, as opposed to a segregated setting (Elkins *et al*, 2003). It may be difficult for parents to find schools with personnel who are sufficiently knowledgeable about inclusive educational goals in order to provide appropriate services to their child. Parents in their study viewed staff as lacking in knowledge about their child, and they found it difficult to access teachers or other staff willing both to provide them with information and receive information from them. Even when such a person is available, conflict can arise from divergent perspectives about the child's needs.

Parents who held negative attitudes towards inclusive practices reported that the severity of the child's disability meant that the regular classroom was not an option for their child. The parents believed that regular education classes were not accommodating enough for their child and that the teachers could be overburdened when students with disabilities were in their classes. These parents were concerned with matters of class size, teaching conditions, and the demands of teaching to a diverse range of students (Al-Shamari, 2008). In the same research done by (Elkins *et al*, 2003), Parents also indicated that their anti-inclusion stance was due to the fact that regular classrooms focused on the academic curriculum, rather than on basic living or functional skills. It was the latter that they wanted for their children. In general many of the parents opposed to inclusion were also concerned about aspects of inclusive programming such as not receiving special attention, or fearing that their child would be mistreated, harmed or ridiculed in the regular classroom.

Concerns about socialization were also expressed by parents in a study conducted by (Freeman and Alkin, 2000). They investigated parents' attitudes to socialization and inclusion. Parents who participated in that study believed that students with severe disabilities who were included in regular classroom settings would be rejected socially. Even when parents believed inclusion to

have beneficial social implications, they still maintained that those with severe disabilities would be rejected. Home-school collaboration is very important and (Rodriguez, 2010) stresses that parents and schools should not view each other as the enemy, because without basic trust, there will continue

to be legal battles between the two groups. Trust between parents and an educator is a key element in enhancing communication and effective implementation of the educational program in general.

2.4 Theoretical perspective

Theoretical base is drawn from education for all as stated in the millennium goals and education as a basic human right as proposed by (Human Rights Commission, 2007). Autistic children have a right to education and all the privileges that other children enjoy in the school environment. Piaget noted that intellectually impaired children may develop at a slower rate or may fail to reach the highest stages in life (Orodho, 2003). Implication of this theory is that learning is developmental. Individuals may take different lengths of time and need different experiences to complete their development.

Skinner theory of motivation states that motivation to undertake a task depends on the expected reward. It is implicit that students' high performance is influenced by the teaching experience and qualification of the teacher also available instructional resources and the teaching strategies (Orodho, 2004).the above information is a clear indication that the above factors contribute to either demotion or promotion of autistic children in the inclusive education.

2.5 knowledge Gap

This chapter reviews work done by various scholars on autism across the world concerning Inclusive education, behavior modification and the characters of these children. In Kenya, autism education was a parent's initiative but the government has since chipped in by providing the teachers and structures and the parents providing food by cost sharing. A few children have been promoted to the inclusive education honoring government policy but majority have been segregated into the autism class. So it is of paramount importance to study the factors that hinder the promotion of these autistic children into inclusive education.

2.5 conceptual framework

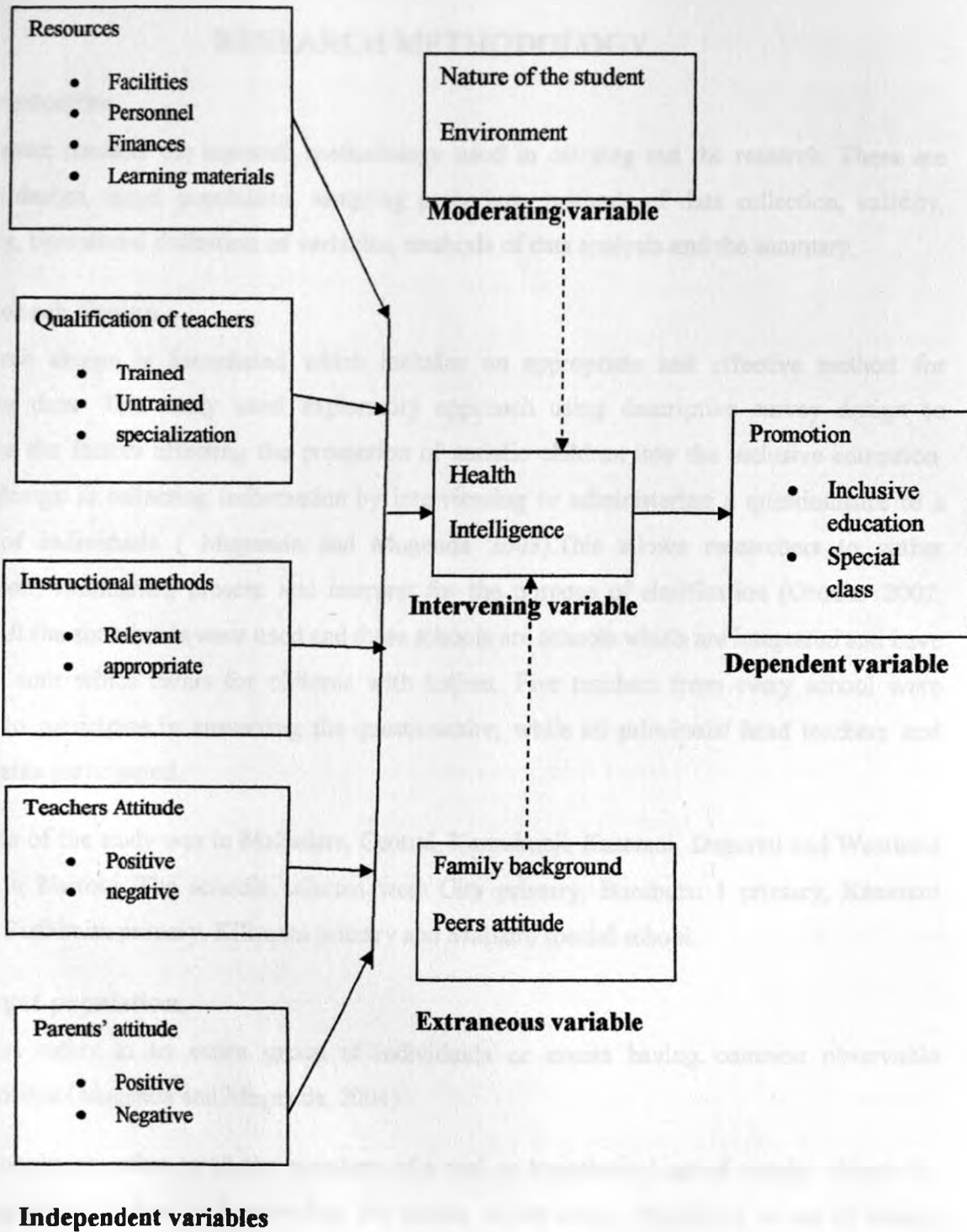


Figure .1 conceptual framework

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter contains the research methodology used in carrying out the research. These are research design, target population, sampling procedure, methods of data collection, validity, reliability, operational definition of variables, methods of data analysis and the summary.

3.2 Research Design.

A research design is formulated which includes an appropriate and effective method for collecting data. This study used exploratory approach using descriptive survey design to determine the factors affecting the promotion of autistic children into the inclusive education. Survey design is collecting information by interviewing or administering a questionnaire to a sample of individuals (Mugenda and Mugenda 2003). This allows researchers to gather information, summarize, present and interpret for the purpose of clarification (Orodho 2002, 2004). All the six schools were used and these schools are schools which are integrated and have a special unit which caters for children with autism. Five teachers from every school were selected to participate in answering the questionnaire, while all principals/ head teachers and forty parents participated.

The locale of the study was in Makadara, Central, Kamukunji, Kasarani, Dagoreti and Westland districts in Nairobi. The schools selected were City primary, Buruburu 1 primary, Kasarani primary, Ruthimitu primary, Kilimani primary and Mathare special school.

3.3. Target population.

Population refers to an entire group of individuals or events having common observable characteristics (Mugenda and Mugenda, 2004).

Target population refers to all the members of a real or hypothetical set of people, objects by observing some of them and extending the results to the entire population or set of events (Orodho, 2009). The target population in this case was all teachers teaching autistic children going to school in integrated public schools in Nairobi County. The sample was drawn from schools in Nairobi where the population is accessible and therefore representative of the whole

population of teachers of autism in Kenya. There are thirty four public schools with special needs classes according to the records in provincial education office but only six of them have classes specifically for teaching autistic children. This calls the need to use only the six schools because they are the ones with the autistic children hence with the information required. The target population was six principals/ head teachers, fifty teachers and one hundred and eighty one parents while six head teachers, thirty teachers and sixty Parents were selected to give the required information in the study.

3.4 Sampling procedure.

A sample is a subject of a target population to which the research intends to generalize the findings. The sample for this study was got from a sampling frame which is a list of all integrated and special schools in Nairobi. According to (Mugenda and Mugenda, 2003 and Saleemi, 2009), a sampling frame is a list of all items of a population, a directory or index of cases where a sample can be drawn.

Purposive sampling is used in this study because the schools which have the required information are six in number. A purposive sampling is a technique which allows the researcher to use cases which have the required information with respect to the objectives of the study (Mugenda and Mugenda, 2004). Simple random sampling technique of five teachers per school was used in the schools visited. This gave all the individuals in the defined population an equal chance of being selected as a member of the sample (Orodho and Saleemi, 2009).

In this exploratory descriptive survey, three categories of respondents were crucial. These were the teachers, Principals/Head teachers and parents of those schools who form the informed specialists.

The sampling units were schools from the districts in Nairobi namely Kasarani, Kamukunji, Central, Westland and Dagoreti. The schools used in the study were City primary school, Buruburu 1 primary, Mathare special, Ruthimitu primary, Kilimani primary and Kasarani primary. The respondents were selected because they are rich in information as a result of their interaction and experience in issues which are to be studied. In the selected districts a purposive sampling technique was applied to districts and schools according to such criteria as school with autism class which will give units that are representative of the population. The reason for using

purposive sampling was because these are the only schools handling autistic learners as a distinct category in Kenya and the number is small forcing the researcher to use all the six schools and all the six principals.

Table 3.1 Integrated and special schools per district in Nairobi County

District	No of Integrated schools	No of Special schools	No of Schools with autistic classes
Embakasi	4	-	-
Makadara	4	1	1
Kamukunji	2	-	1
Central	5	2	1
Langata	1	-	-
Dagoreti	5	1	1
Kasarani	3	-	1
west lands	3	1	1
Total	27	5	6

3.5 Methods of data collection.

Typically, a researcher decides on one (or multiple) data collection techniques while considering its/their overall appropriateness to the research, along with other practical factors, such as expected quality of the collected data, estimated costs, predicted nonresponsive rates, expected level of measure errors, and length of the data collection period. The most popular data collection techniques include: surveys, secondary data sources or archival data, objective measures or tests, and interviews.

A research permit was obtained from the University of Nairobi where a copy was presented to the DEO and to the principals/ head teachers of the participating schools. The researcher also introduced herself through an explanatory letter of the problem to be studied to the principals /head teachers of the participating schools and then administered the questionnaires.

Questionnaires were distributed and collected after one week while the personal interviews were done within the first visit when the questionnaires were distributed in the schools where principals were present and where they were absent interview was carried out while the questionnaires were being collected. The questions were structured and non - structured so as to cover wide range of information. The first section was on demographic information, and the second section was on structured and unstructured questions which tried to answer the questions raised in order to meet the specific objectives. Questionnaires were distributed to the respective schools by the researcher and given to the teachers to fill within a period of one week. They individually and independently interpreted and recorded these instruments. The questionnaires were collected on the date agreed upon by the researcher and the respondents. During the interview the answers were being recorded as they were being answered. The questionnaire was pretested in Buruburu one primary school and procedures used during pretesting are the same which were used in actual study collection.

3.6 Validity

Validity of an instrument is the degree to which a test measures what it purports to measure (Mugenda and Mugenda 2003). Results obtained from the analysis of the data actually represent the phenomenon under study. The questionnaire was representative of the content to be measured and the items in the questionnaire were tested for content validity. The different sections of the questionnaire cover all the objectives of the study making the tool measure what it is intended to measure. Then a pilot test was conducted on a population similar to the target population at Buruburu one primary school to test the validity of the instruments. This was prior to the actual study. A sample size of one head teacher, five teachers and ten parents was selected for piloting. The results of the pilot study were discussed with the respondents and supervisor for correction of ambiguous and wrongly structured questions.

3.6.1 Reliability of the measurement.

Reliability is the consistency in producing a reliable result. This focuses on the degree to which empirical indicators are consistent across two or more attempts to measure the theoretical concept. When the questionnaire administered at different times to the same individuals gives the same results. A pilot study was done to establish the reliability of the instruments in Buruburu one primary school. The developed questionnaire was administered twice to a few identical

subjects for the study giving a two week lapse between the first and the second test. The principal/ head teacher, five teachers and ten parents were used for piloting. They helped in identifying ambiguity and modifications to be done to the questionnaire.

The coefficient of stability (test-retest) method was used to estimate the degree to which the same results can be obtained with a repeated measure. Pearson product moment for the test pretest (Orodho, 2004) was used to compute the correlation coefficient. This is to establish whether the contents of the questionnaire were consistent. The reliability statistics generated in the study were above the recommended coefficient of 0.7. This implies that the research instrument was reliable because it had a coefficient of 0.8.

3.7. Operationalization of variables.

Table 3.2 Operationalization of variables

Objectives	Independent variables	Dependent variables	Indicators	Measuring scale	Data tool	Type analysis
To establish the current status of resources	Resources Money Personnel Facilities Learning resources	Autistic child	Physiotherapy equipment. Furniture Teacher aides Resource room.	Nominal Ratio	observation Questionnaire.	Descrip
To asses if instructional methods are relevant and appropriate.	Instructional methods.	Autistic child	Assistive technology. Cubicles. IEP	Nominal Ordinal	Questionnaire observation	Descrip
To asses the number of teachers handling autistic children that are trained in autism course.	Teachers' qualifications	Performance of autistic child	Trained in autism. Trained in special education	-nominal Interval	Questionnaire.	Descrip
To asses the attitude of teachers	Attitude	Autistic child	-Positive -Negative	Nominal	Questionnaire	descrip
To asses the attitude of parents	Attitude	Autistic child	-Negative -Positive	Nominal	Questionnaire	descrip

3.8 Methods of data Analysis

Data analysis is a practice in which raw data is ordered and organized so that useful information can be extracted from it (Mugenda and Mugenda, 2003). There are a variety of ways in which people can approach data analysis, and it is notoriously easy to manipulate data during the analysis phase to push certain conclusions or agendas. For this reason, it is important to pay attention when data analysis is presented, and to think critically about the data and the conclusions which were drawn.

In this project Data analysis was done using quantitative approach when the data was extracted from the questionnaires. After data collection the questionnaire were checked for completeness and then coded for analysis. Data was analyzed using descriptive statistics using frequency distribution, percentages and measure of central tendency which involves computation of mean, median and standard deviation. Analysis was done using the Statistical Package for Social Sciences (SPSS).

3.9 Summary

This chapter has looked at research design, target population, sampling, and methods of data collection, sampling procedure, methods of data collection and validity and reliability. It has also looked at operational definition of variables and methods of data analysis.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

Chapter four contains detailed data which was collected using two types of questionnaires and an interview guide. These were to generate information on factors affecting promotion of autistic children into inclusive education.

In data collection, three sets of questionnaires were designed for the three categories of people to respond to them. All the three sets contained demographic information as section A. The questionnaires designed for the head teachers and the parents contained tailored questions suitable for each category. Teachers' questionnaires comprised of another four sections. Section B explored resources in the schools, C instructional methods used, D special training for the teachers and section E, teachers' attitude towards the autistic children in conjunction with the learning environment and section F on parents' attitude.

The questionnaire contained open ended questions and others on a likert scale. Validation of the instrument was carried out through the expert feedback of the supervisor that was followed by a pilot study in one school and the results are reflected in the study. In the light of the experts' opinion and the pilot study, the instrument was administered in large scale through the researcher's personal visits. The data was analyzed using Statistical Package for Social Sciences (SPSS) version 12.0. The simple frequency and percentage tables, item wise in terms of the mean score and regression analysis were used.

4.2 Questionnaire return rate

All the six headteachers/principals participated in the interview resulting to 100% participation. The teachers were given 30 questionnaires, 24 were returned complete, 2 incomplete while 4 were never returned registering 80% response and Sixty Parents were given the questionnaires, 42 returned with 2 incomplete registering 66.6 response. In total 96 questionnaires were issued, 74 were returned making 77% return rate which made the study a success.

4.2.1 Demographic information.

Table 4.1 Respondents by Gender and category.

		Category			Total	
		Head teachers	Teachers	Parents		
Gender	Male	Count	1	5	6	12
		% of Total	1.4	6.9	8.3	16.7
	Female	Count	5	19	36	60
		% of Total	6.9	26.4	50	83.3
Total		Count	6	24	42	72
		% of Total	8.3	33.3	58.3	100

The respondents were asked to indicate their gender and they responded as follows. The gender response registered majority, females at 83.3% and males at 16.67%. Among the three groups involved in the study, teachers were 33.3% while head teachers 8.3% and parents were 58.3%. Among the teachers' group, females were 26.4% with males having 6.94%. Among the parents, females accounted for 50% and males 8.3%, with head teacher females emerging with 6.9% and males at 14% as indicated by the (Table 4.1). This is a clear indication that females are the majority in taking care of the autistic children.

Table 4. 2 Respondents by gender and age

		Age bracket			Total	
		20-30	30-40	> 40		
Gender	Male	Count	4	4	4	12
		% of Total	5.6	5.6	5.6	16.8
	Female	Count	14	21	25	60
		% of Total	19.4	29.2	34.7	83.9
Total		Count	18	25	29	72
		% of Total	25	34.8	40.3	100

Majority of the study participants (40.3%) were aged above 40 years followed by 34.8%, at the age bracket of 30-40 years while those who were in the age bracket of 20-30 represented 25.00%. Regarding gender issue, females accounted for 34.7% above forty years, 29.2% between 30-40 years and only 19.4% in the bracket of 20-30. As regards males, 5.6% responded

across all ages in the three age groups. This gives a general view that most of the participants found in this study are females.

Table 4.3 Respondents by category and age

Category	Head teachers	Count	Age bracket			Total
			20-30	30-40	> 40	
			0	1	5	6
		% of Total	0	1.4	6.9	8.3
	Teachers	Count	7	8	9	24
		% of Total	9.7	11.1	12.5	33.3
	Parents	Count	17	16	9	42
		% of Total	23.6	22.2	12.5	58.3
Total		Count	24	25	23	72
		% of Total	33.3	34.7	31.9	100

Respondents were asked to indicate their age in years and the results were as follows as indicated in (Table 4.3). The respondents who were above forty years 31.9% and teachers and parents dominated at 12, 5 %, and head teachers at 6.9. In the age bracket 31-40 years, parents were majority at 22.2%, while teachers followed with 11.1% and head teachers 1.4%. Most of the parents are in the age bracket o 20-30 years, 23.6% showing that most of the parents are young parents.

4.2.2 Teaching experience of teachers and principals /head teachers

Table 4.4 Gender and teaching experience in years

Gender			Teaching experience in years					Total
			< 1	1-5	6-10	11-15	16+	
Male	Count	0	1	2	1	2	6	
	% of Total	0	3.3	6.7	3.3	6.7	20	
	Female	Count	0	8	2	2	12	24
	% of Total	0	26.7	6.7	6.7	40	80	
Total	Count	0	9	4	3	14	30	
	% of Total	0	30	13.3	10	46.7	100	

Teachers were asked to indicate their teaching experience in years. The study revealed that the majority of the respondents 46.7% had over 16 years of experience with females demonstrating 80% and males 20%. those between 1-5 years of experience were 30% , females accounting for 26.7% and males 3.3% followed by 13.3% of those who were between 6-10 years with both females and males parting with 6.7% each respectively. There is a clear indication that majority of those who participated had an experience of over 16 years (table 4.4).

4.2.3 Academic levels of both principals/head teachers and teachers

Results in indicates that 10% of the head teachers are holders of Bachelors in special Education, 3.3% Masters in special education and 6.7% were holders of diploma in special education making a total population of 20% of the principals. Teachers on the other hand accounted for 30% with diploma in special education, 26.7% with bachelor of special education, 16.7 with certificate of special education and 6.7% with masters in special education.

Table 4.5 Respondents by category and academic level

		Highest academic qualification				Total	
		Masters in special education	Bachelor in special education	Diploma in special education	Certificate in special education		
Category	Head teachers	Count	1	3	2	0	6
		% of Total	3.3	10	6.7	0	20
	Teachers	Count	2	8	9	5	24
		% of Total	6.7	26.7	30	16.7	80
Total		Count	3	11	11	5	30
		% of Total	10	36.7	36.7	16.7	100

4.2.4 Response to the Period of stay in the current school by the teachers

Table 4.6 Length of stay in the school

			For how long have you been in this school?				Total
			<1	1-5	6-10	10-15	
Gender	Male	Count	1	3	1	0	5
		% of Total	4.0%	13.0%	4.0%	.0%	21.0%
	Female	Count	2	12	4	1	19
		% of Total	8.0%	50.0%	17.0%	4.2%	79.0%
Total	Count		3	15	5	1	24
	% of Total		13.0%	63.0%	21.0%	4.0%	100.0%

In Table 4.6, majority of the teachers, 63% were in their respective schools for a period of 1-5 years followed by 21% having been in their schools for a period of 6-10 years with 13% being less than a year in their respective schools. With regard to gender and the duration, 50% were females in the bracket of 1-5 while males accounted for the minority in this group at 13%. Between 6-10 years, females were 17% and less than year were 8% and 4% between 10-15 years, 4% of the males were less than one year old in their schools while there were none between 10-15 years.

4.3 Teachers responses on resources

Table 4.7 Respondents on classrooms design

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	2	8.3	8.3	8.3
	Agree	8	33.3	33.3	41.8
	Disagree	12	50.0	50.0	91.8
	Strongly disagree	2	8.3	8.3	100.0
Total		24	100.0	100.0	

The study sought to establish whether the schools involved had the necessary infrastructure for autistic children. Responses of teachers from different schools involved in the study Table 4.7 (50%) reiterated that the classrooms were not designed to suit the peculiar needs of the autistic children with 8.3% strongly disagreeing, 33.3% were in agreement and 5% strongly agreeing. The scenario implies that majority of the schools were not in conformity with the requirements for the autistic children, which reduces the level of success.

Table 4.8 Respondents on separate sanitary facilities for autistic children

Do you have separate sanitary facilities for autistic children			
	Frequency	Percentage	Total
Yes	23	96	96
No	1	4	4
Total	24	100	100

Teachers were further asked whether their schools had separate sanitary facilities for autistic learners and the response is as indicated in (table 4.8). It was reported (96%) that sanitary facilities were specially made for the autistic learners with only 4% refuting this.

4.3.1 Substitutes for physiotherapy equipment

Other Critical physical equipment that was explored was physiotherapy equipments where 33% of the respondents said that the equipments were available in their schools while 67% argued that the equipments were not available (table 9).

Table 4.9 Respondents on physiotherapy equipment

	Frequency	Percentage
Yes	8	33
No	16	67
Total	24	100

The respondents were requested to give alternatives that they use where they do not have physiotherapy equipment and the responses are in (Table 4.10). The responses indicated that they

substituted the equipment with the following, 29% indicated that occupational therapy complements the role of the physiotherapy equipments while 25% said that swimming plays a great role in substituting physiotherapy equipments. Another 13% of the respondents said that they engage special knowledge that they gained from special education training to give therapy to these students while 33% reported that it was not applicable.

Table 4.10 Substitutes for physiotherapy equipment

Substitute	Frequency	Percent
Swimming	6	25
Occupational therapy	7	29
Knowledge from special education	3	13
Not applicable	8	33
Total	24	100

4.3.2 Use of the available resources

Table 4.11 Challenges which autistic learners face while using the facilities provided

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Break them	3	13.0	12.5	12.5
	Take long to adopt	7	29.0	29.2	41.7
	Dislike of the preference	6	25.0	25.0	66.7
	Hurt themselves	3	13.0	12.5	79.2
	Missing	5	21.0	20.8	100.0
	Total	24	100.0	100.0	

A question was raised about the challenge that the learners face while using the available facilities. In the results shown on (Table 4.11) indicate that the most notable challenge was that the autistic children take too long to adapt to the facilities by 29% of the respondents, 25% of autistic children were not all in the preference of the available facilities while 21% did not

respond to the question. Other mentioned challenges were that they are likely to break them if the facilities did not please them (13%) and that they get hurt by the unsuitable facilities to cater for their definite needs (12.9%).

4.3.3 Effect of physical facilities on promotion of autistic learners

Teachers were asked to explain how physical facilities affect the promotion of autistic children to an inclusive education. Nearly half of the respondents 42% provided the effects of the physical facilities to the placement where 21% singled out lack of physiotherapy equipment which would contribute to adequate exercise that will contribute to motivation of these children. Another 13% illuminated a positive impact that physical facilities improved required motivation which helped the children gains confidence (8%) Table 4.12.

Table 4.12 Respondents on physical facilities on promotion of autistic children

		How it affects.				Total	
		Provides motivation	Lack of adequate exercise	Help to gain confidence	Not applicable		
Affect promotion	Yes	Count	3	5	2	0	10
		% of Total	13.0%	21.0%	8.0%	.0%	42.0%
	No	Count	0	0	0	14	14
		% of Total	.0%	.0%	.0%	58.0%	58.0%
		Count	3	5	2	14	24
Total		% of Total	13.0%	21.0%	8.0%	58.0%	100.0%
		Total					%

4.3.4 Adequacy of learning materials

Generally the respondents were asked whether there were specific learning resources for autistic children and how adequate they were in their schools. Over half the respondents 54% reiterated that the provision of resources was available as opposed to 46% of the respondents who said that

they were not in a position to tell. resources are inadequate as it was declared by 32% of the teachers and 17% saying that they were only adequate while Insignificant 4% suggesting they were very adequate (Table 4.13).

Table 4.13 Response on adequacy of resources

			Are there specific learning resources for autistic children?		Total
			Yes	No	
Rating of the learning resources	Very adequate	Count	1	0	1
		% of Total	4.0%	.0%	4.0%
	Adequate	Count	4	0	4
		% of Total	17.0%	.0%	17.0%
	Inadequate	Count	8	0	8
		% of Total	33.0%	.0%	33.3%
	Can't tell	Count	0	11	11
		% of Total	.0%	46%	46%
		Count	13	11	24
Total		% of Total	54.0%	46.0%	100.0%

4.3.5 Availability of teachers and others people who handle the autistic class

The respondents (Teachers) were requested to say whether there were enough teachers to handle the Autistic class. The study show (table 4.14) that half (50%) of the responses were that they were enough while that the other half (50%) felt that the teachers were not enough. Further they were asked apart from the teachers, who else take care of the classes and the study identified three supportive methods in taking care of the Autistic children, 46% said that there is engagement of the teachers aides, Supportive staffs were mentioned by 29% , 21% by physiotherapist none were at 4%.

Table 4.14 Respondents on adequacy of trained personnel

Are there enough teachers for the autistic class?		Others who take care of the learners				Total
		Teacher Aides	Physiotherapist	Supportive staff	Missing	
Yes	Count	7	3	1	1	12
	% of Total	29.0%	13.0%	4.0%	4.0%	50.0%
	Total					
No	Count	4	2	6	0	12
	% of Total	17.0%	8.0%	25.0%	.0%	50.0%
	Total					
Count		11	5	7	1	24
% of Total		46.0%	21.0%	29.0%	4.0%	100.0%

4.4 Instructional methods

To investigate whether instructional methods used in the autism class were appropriate the respondents were presented with three potential predictors in the likert scale of 1-5, 1 representing strongly agree and 5 not sure. Multiple regression analysis was conducted to examine the relationship between the appropriateness of the instructional methods used in the autistic class and how favorable these methods are to the autistic children, for inclusive education and whether these methods can affect promotion of autistic children into inclusive setting. To investigate whether instructional methods used in the autism class were appropriate (dependant factor) the respondents were presented with three potential predictors in the likert scale of 1-5, 1 representing strongly agree and 5 not sure.

Further the instructional methods used in the autistic class (y intercept of 0.635) was also influenced by the majority of the respondents strongly agreeing that those instructional methods

were equally favorable for inclusive education to the autistic children with coefficient of regression 0.224, weight .443 and p-value < .05.

Table 4.15 Regression analysis on appropriateness of the instructional methods used

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.632	.209		2.204	.041
Instructional methods used in my class are favorable for the autistic children.	.246	.093	.412	2.647	.015
Instructional methods used in my class are favorable for an inclusive education.	.224	.077	.443	2.904	.009
The instructional methods can affect the promotion of the autistic children in to the inclusive education	.019	.049	.172	1.036	.055

From the (Table, 4.15) output, the regression equation is: $\hat{y} = 0.632 + 0.246x_1 + 0.224x_2 + 0.019x_3$. The table summarizes the descriptive statistics and the analysis results. The results show that instructional methods used in the autistic class (y intercept of 0.635) was highly influenced by majority of the respondents strongly agreeing that the instructional methods used in the autistic class were favorable for the autistic children with a regression coefficient of 0.246, weight of 0.412 and p-value, $0.015 < 0.05$.

Respondents were to indicate whether instructional methods used in the autistic class affect the promotion of the autistic children into the inclusive education and this did not influence the model due to insignificant regression coefficient .019, weight .172 and p-value, $.055 > .05$

implying that majority of the respondents were in disagreement that the instructional methods used in the autistic class affect the promotion of the autistic children in the inclusive setting.

From the above output, the regression equation is: $\hat{y} = 0.632 + 0.246x_1 + 0.224x_2 + .019x_3$. results of instructional methods (table 4.15) used in the autistic class (y intercept of 0.635) was highly influenced by majority of the respondents strongly agreeing that the instructional methods used in the autistic class were favorable for the autistic children with a regression coefficient of 0.246, weight of 0.412 and p-value, $0.015 < 0.05$.

4.4.1.1 Computation and interpretation of Coefficient of multiple determination, R^2 .

Table 4.16 illustrates that the coefficient of multiple determination is 0.663 therefore about 66.3% of the respondents suggested that the instructional methods were appropriate and favorable towards autistic children and also in an inclusive education system.

Table 4.16: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.814 ^a	.663	.613	.300

4.5 Special training for teachers

Table 4.17 Respondents on training of teachers in autism.

Responses		Yes	No	Total
Have you undertaken special education course in autism?	%	33%	67%	100
	count	8	16	24
Training teachers in autism would help in promoting children into inclusive education.	%	83%	17%	100
Total	Count	20	4	24

The study participants were requested to indicate whether they have undertaken special training education in autism (Table 4.17). The study revealed that 67% of the respondents have not undertaken the training in special education course in autism while 33% indicating that they have. Further the respondents were asked whether training of teachers in autism would help in promoting the autistic children in to the inclusive learning and 83% confirmed that this would help while 17% expressed that it would not help.

4.5.1 Ways in which autism course would help

The respondents were put on an opinionated question that asked ways in which they thought that training teachers in autism would help in promoting the autistic children into inclusive education. The study indicated that 46% of the respondents argued that the training would impart them with desired skills in diagnosing the affected children thereby indentifying them easily leading to early intervention. About 54% reiterated that training would provide the professional expertise of handling the affected children and that most teachers in regular classes will understand autistic learners' hence easy management (Table 4.18).

Table 4.18 Respondents training in autism promotion autistic learners.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ease to identify affected children	11	46	46	46
	Professional handling of the affected children	13	54	54	100.0
	Total	24	100.0	100.0	

4.5.2 Reasons for not undertaking autism course

To mitigate the perception that most of the teachers do not wish to undertake special training in autism, they were asked to give their opinion as regarding to this assertion. 38% of the teachers argued that dealing with autistic learners is challenging and overburdening thus immensely contributing to a negative attitude towards them. Further they continued to argue that the

allowance 21% provided to them is sufficiently insignificant as compared to the workload they have to contend with. Another 25% found out that the cost involved undertaking the training is highly prohibitive thus hindering those teachers who may be willing to undertake it (table 4.19). Further they claimed that the available institutions offering this noble training are very few in the country therefore also contributing to this problem.

Table 4. Respondents on special education training

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	It is costly	6	25	25.0	25.0
		9	38	37.5	62.5
	Challenges/overburdening				
	Lack of information	4	17	16.7	79.2
	No appreciation	5	21	20.8	100.0
	Total	24	100.0	100.0	

4.6 Teachers' attitude towards autistic learners

One of the key concerns of the study was to investigate the teachers' attitudes towards the autistic learners in regard to nine major indicators put at five point likert scale (table 4.20): strongly disagree (1); disagree (2); uncertain (3); agree (4); strongly agree (5) mean score was used. Item (1) was agreed with, with a mean score of 4; that schools with typically developing children and children with autism enhance the learning of children with autism. Uncertainty prevailed with item (2) with a mean score of 3.21 whether children with autism are disruptive and negatively influence behavior of children around them. Items (3 to 6) attained a mean score of 2.38, 2.25, 2.12 and 2.04 respectively, disagreeing that only teachers with extensive special Education can help child with autism, children with autism cannot socialize well with other children and regular schools are too advanced for autistic children. Items (7 - 9) were strongly disagreed with a mean score of 1.92 and 1.63; it's unfair to ask teachers to accept children with

These results indicated that the attitudes and the perceptions of the teachers towards the autistic learners were positive which would contribute positively to their promotion.

4.7 An overview interview with the Principals

The principals of the 6 schools involved in the study were requested to give an overview on the status of autism in their respective schools. Firstly they were required to indicate under which category of their school fell given the classification as, Inclusive learning and integrated. There were two identified categories of schools dealing with autistic children. These are integrated being five while Inclusive was one as demonstrated in (table 4.21). Further the study established that the autistic classes were started in between the years 2003 and 2009 in the respective schools (Table 4.21).

Table 4. 21 category of school and the year autistic class was started

		Year the autism class was started					Total
		2003	2006	2007	2008	2009	
Category of the school	Inclusive learning	0	0	0	1	0	1
	Integrated	1	1	1	1	1	5
Total		1	1	1	2	1	6

The principals were further asked to indicate the enrollment of the autistic children in their schools and the results are as shown in (Table 4.22). The total enrollment in all the schools totaled to one hundred and eighty one learners. City primary school in central district had the highest enrollment with one hundred and two learners. Out of the one hundred and eighty one learners, only (5) 3% were put in the inclusive education setting in two schools having put four and one learners respectively while the rest of the schools have not (Table 4.9.)

Table 4.22 Enrolment of autistic children in each school

Schools	Enrolment	Promoted to inclusive education.	
City primary	102	4	2.2%
Buruburu primary	20	1	0.5%
Kasarani primary	25	0	
Kilimani primary	10	0	
Ruthimitu primary	8	0	
Mathare special	15	0	
Total	181	5	3%

4.8 Respondents on Parents' attitude

In this study, male children seem to be the most effected with 66.7% (Table.4.23) while the female at 33.3%. Majority of the children whose parents participated are in the age of 9-11 years while the least are in the range of over 14 years. This could have been contributed by the parents' having high hopes of their children improvement after joining school.

Table 4.23 Respondents on Age and gender of the child

Age in years	Number of children		Male		Female	
5-7	10	23.8%	7	17%	3	7.1%
7-9	10	23.8%	6	14.3%	4	9.5%
9-11	13	31.0%	10	23.8%	3	7.1%
11-14	5	11.9%	3	7.1%	2	4.8%
Over 14	4	9.5%	2	4.8%	1	4.8%
Total	42	100%	28	66.7%	14	33.3%

Table 4.24 when the child was discovered with autism

Age in years	Number of children	
3	20	48%
3.5	10	24%
4	11	26%
5	1	2%

Most of the children are discovered with autism at age 3 years (48%), age 3.5 (24%), 4 years (26%) and 5 years (2%) as indicated in Table 4.24, male children are the majority(66.7%) which is a clear indication that boys are mostly affected.

Table 4.25 Response to changes noted since the child joined school

Positive changes	Frequency	Percent
Able to do things independently	12	28.6%
Plays with other children	18	42.9%
Improved speech	5	11.9%
Plays with toys constructively	9	21.4%
Is more attentive than before	20	47.6%
Able to do academic work	5	11.9%
No response	6	14.3%

Further the parents were asked to state the positive changes that they have noted in their children since they joined school (table 4.25), 47% of the parent declared that their children are more attentive than before, 42.9% stated that their children play with other children. Other responses were below 30% as indicated in the table 4.25.

4.9.4 Placement of autistic child in inclusive education

In the table 4.26, parents were asked if they would like their children to be put in inclusive setting and support their answer. In response, 71% said yes stating that their children would benefit from the typically developing children in the inclusive setting. On the other hand, 12%

indicated that their children should not be put in an inclusive setting sighting that their children would not benefit at all while 17% did not write anything meaning they were undecided.

Table 4.26 Response on placement of autistic child

Supporting your answer	Would you like your child to be put in inclusive education?			
	Yes		No	
My child will learn from non disabled learners	30	71%	5	12%
My child would not benefit at all.	5	12%	30	71%
Undecided	7	17%	7	17%
Total	42	100%	42	100%

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introductions

The purpose of this chapter is to discuss the summary of the findings, give discussions, the conclusion and the recommendation for further research.

5.2. Summary of the findings

This section deals with summary of the findings from the data analysis in line with the objectives and the research questions.

5.2.1 Resources

When working with children who have autism several factors must be considered such as physical and environmental support. Results of the study shows that resources are not adequate with about 50% saying so and even the resources which were there were not specifically designed for autistic children with (91.70%). Resources like physiotherapy equipment are very crucial for the autistic children because they help in exercising thus motivating the child to be active but are found in just two schools. Majority of the teachers suggested that this facility was not there in most schools and therefore they substituted with other activities like swimming, 25%, occupational therapy 29%, knowledge from special education 13% while 33% did not state what they used.

The findings also show that Instructional resources are not adequate (33%) while (46%) stated that they cannot tell. There is no resource rooms segregated for common use of learning resources but the few resources available are kept in carefully chosen cupboards in the classrooms. The findings imply that the resources are not adequate and even the ones which are there are not designed for the autistic learners.

5.2.2 Instructional methods

Results of the instructional methods show that (66.3%) of the respondents suggested that they were appropriate for all learners in the inclusive education class while (63.2%) of the respondents agreed that the instructional methods are favorable. The findings indicate that

instructional methods do not affect the promotion of autistic learners into the inclusive education since the majority suggests so.

5.2.3 Teachers qualifications

According to the study, most teachers who work in the integrated schools are trained in special education but only few of them are trained in autism (33%). It was suggested that training of teachers (83%) in autism course would help in taking care of the autistic learners which is a clear indication that those who take care of the autistic learners are trained in special education in other areas but not in autism. The research also showed that teachers did not train in special education because of other reason like; the course is costly (25%), it is challenging to teach autistic children (62.5% and there is no proper appreciation (28%) either from the government or from the people.

Measures which featured prominently were to impart the teachers with much needed skills to handle the autistic learners (54%). It was reiterated that the government institutions offering special education training can't absorb many people wishing to receive the training and further argued that the financial requirements are very exorbitant thus prohibiting the undertaking of the noble training (25%). About 21% pointed out that there is no appreciation either from the Government or from the vast majority of the citizens who think that autistic children are usually mad people and bad omen in the society therefore disassociating themselves with those who deal with such children. These results imply that there is need for training teachers in Autism course for better results in inclusive education and need to make it user friendly by reducing the cost in training.

5.2.4 Teachers attitude

Study on the attitude of teachers towards autistic child was carried out and a high percentage of teachers were in favor of autistic learners being in the inclusive education class with a mean score of (4). Majority suggested that a school with typically developing children enhances the learning experiences of children with Autism (96%) while 49% disagreed that regular schools were too advanced for autistic children. This is a clear indication that the teachers handling these autistic children have positive attitude towards promotion of these autistic children into inclusive education.

5.2.5 Parents attitude

In this study, 71% of the parents stated that their children benefited from the typically developing children in the inclusive setting, 12% indicated that their children should not be put in an inclusive setting sighting that their children would not benefit at all. While 17% did not write any thing meaning they were undecided. The results indicate that majority of the parents have positive attitude towards inclusive education of their children which is clear indication of the enrolment of autistic children in the said schools. Results show that 47% of the parents responded by purporting that their children had become more attentive since they joined school, 42.86% gave the impression that their children could play independently compared to the behavior previously. The results give an impression that the parents are aware that their children would benefit from inclusive education. The few cases of parents who do not want their children to be put in inclusive setting may be children with severe cases of autism which makes it difficult for them to be placed in the inclusive education. Positive attitude by both parents and teachers is very important in inclusive education because it will encourage collaboration which enhances communication and effective implementation of education programme.

5.3 Discussions of the study

One of the objectives was to find out if resources affect the promotion of autistic learners into inclusive education. Results indicate that the resources are not adequate (50%) and even the ones which are there are not designed for autistic learners (91.70%). These results agree with (Park and Sansosti, 2010) who suggested that research has proved that a child with autism's participation in recreational programmes help develop their social skills.

Physiotherapists who are part of the human resource on the other hand were also not available in most schools and the school which had, they were occupational therapists and some were not professionals but employees who were unprofessionally trained but aided the pupils in doing exercises. This outcome concurs with the findings of (Muuya, 2007 and Task force, 2003) which stated that there is lack of infrastructure in integrated schools besides teachers, physical facilities and learning materials in many schools were not appropriate for children with disabilities, hence the recommendation that all schools be made barrier free to ease accessibility for learners in special needs education and to facilitate inclusive education.

This is contributed by affordability which was significantly mentioned as one of the major hindrances in the structuring of the classes and the autistic learners facilities required for learning are very costly therefore making many parents not afford to enroll their children. Government provides funds to buy these facilities but the funds are not enough. This role has been left to a few well wishers whose sustainability is also not guaranteed. Some of the few resources available were not found locally or very expensive such that only a few parents can afford. Autism society of Kenya in 2003 reported that the equipment used in some of these schools is a donation of safaricom and Barclays bank.

The second question was on whether instructional methods affect promotion of Autistic children into inclusive education. 63.5% stated that the instructional materials were favorable and 66.3% indicated the instructional methods were appropriate. This implies that the instructional methods do not affect the promotion of autistic children into inclusive education. This leaves room for further research on the methodologies used in the inclusive setting whether they are favorable for autistic children because the students who have been promoted to inclusive education are only five (2.76%) of all the autistic learners in the study schools. This may require regular in servicing of teachers by professionals which would enable easy and proper identification of autistic learners and their individual needs. It was suggested that, in order for a child on the autism spectrum to be fully included, there is a need to focus on the needs of the individual child, to work in partnerships with parents and other professionals, to create enabling environments and to understand how autism might impact on learning and development (Siegel, 2010 and Regional seminar, 2007).

Third objective sought to answer the question whether qualification of teachers affected the promotion of autistic children into inclusive education. Those trained in autism course accounted for 33% while those that were not trained accounted for 67%. At the same time 83% suggested that training in autism would help in providing professional expertise (54%) and the desired skills (46%). The study shows that very few teachers are trained in autism and so it is necessary to undergo the training. The results concur with (Merrifield, 2000) who explained that one of the reasons why teachers are under prepared for diversity is lack of knowledge, experience, commitment and understanding. A survey on teachers (MOEST and TSC, 2006) who were deployed in schools for the disabled and found out that they sought transfers immediately after

realizing the demands of the work. Similarly, (KNCHR, 2007 and EADSNE, 2007) found out that special schools lacked adequate teachers and those who were there were being overworked which is in agreement with the results of the study. Some teachers argued that they did not undertake the autism course because, it was costly (25%), was challenging and overburdening (62%), lack of information (79%) and no appreciation (20.8%). A recommendation was given by (Rodriguez, 2010 and EADSNE, 2010) that additional training for teachers would improve teachers' base on autism and this study gives a similar recommendation.

Fourth objective sought to find out whether the attitude of teachers affected the promotion of autistic children into inclusive education. The statements were put on a Likert scale and 57% disagreed with the statements which tried to show that it was impossible to work with autistic children while 97% disagreed with the statement which suggested that autistic learners could not be incorporated with typically developing children while 46% disagreed with separation of autistic children with the rest. This is a clear indication that teachers who teach in these autistic classes have a positive attitude towards autistic children meaning this does not affect promotion. This could have been contributed by the fact that these teachers teach in the autism classes which is in agreement with earlier research by (Robertson, 2003 and Park, 2010) that people who have friends with individuals with disabilities tend to hold more favorable attitudes towards them. All the same this calls for further research on teachers teaching in the regular classroom to give their opinions on including children with autism in their classes in order to get more views. This is because, (Wamae and Kang'ethe, 2004), while researching on the inclusion of the hearing impaired learners into inclusive education had found out that most teachers had unfavorable attitudes towards receiving disabled children into their classrooms.

The last objective sought to find out if parent's attitude affected the promotion of autistic children into inclusive education. Parents gave the positive changes they had noted in their children. They suggested that they played with other children, 42.86%, able to do things independently, 28.57%, is more attentive than before. This is a sign of positive attitude from the parents which shows that they are motivated to take them to school. Parents have a wide range of suggestions which concurs with earlier studies by (Elkin, 2003, Rodriguez, 2010 and Al-Shamari, 2008).

Positive attitude from both parents and the teachers could have been contributed by the governments' inclusive policy and exposure to children with autism. So the study shows that majority of parents and teachers have positive attitude which could be a score in promoting children into regular education. This echoes (Horrocks, 2008) findings on Principals' attitude on inclusion and concluded that attitude does not affect inclusion into inclusive education.

5.4 Conclusions

In conclusion, the study has established that there is lack of proper resources and shortage of trained teachers in autism education. Teaching methods and attitude of both teachers and parents do not hinder the promotion of autistic learners to inclusive education. Clear guidelines are lacking as to how these children should be included with no mechanism for delivery of the curriculum to cater for autistic learners. However, with the negligible number that has been promoted and majority of teachers not trained in autism, there is need to look further into the inclusive education classes by attending as they are being taught and find out whether this is actually the case.

5.5 Recommendations

1. Resources should be specifically designed for learners with autism where classrooms should be structured in such away that autistic learners can be accommodated with ease.
2. Training of teachers in autism course should be expanded to all teachers training colleges and institutions of higher learning to cater for all teachers so as to create more success in inclusive education.
3. Since autism needs new technology to some extent, teachers need to be trained in these new technologies so that they will not appear alien while using them in their respective schools.
4. The government should reserve more funds for autistic learners in particular, so that the general public in schools and the community at large would be sensitized on the importance of placing autistic children into inclusive education.
5. On the other hand the curriculum should be adjusted to accommodate autistic learners in public schools where they would be given more time to learn since the Autistic children need a lot of patience in order for them to grasp anything.

6. Training expenses and duration should be reduced may be by including the autism course to be one of the units undertaken in institutions of higher learning.
7. There is need to expand and extend autism education to all public schools so as to accommodate more children and shorten the distances covered by these parents when they seek for education in various schools.
8. The outcome of the study shows that there is a need for improvement in special education programming in Kenya especially with regard to autism. Kenyan future teachers and current teachers could benefit from both pre-service and in-service education. Since the diagnosis of autism is relatively new in Kenya, teachers are not fully equipped with how to best teach students with autism.

5.5 Suggestions for further research

This study explored the factors that hinder promotion of autistic learners into inclusive education in public primary schools (integrated);

1. Further research should be done on those children who have been promoted into inclusive education and find out whether they are gaining adequately.
2. A similar study should also be carried out in private schools to find out if autistic learners are put in inclusive education.

REFERENCES:

- Abilla, C., (1988). UNESCO (2007). *A case study in special education in Kenya*, KISE, Nairobi.
- Avramidis, E., Bayliss, P. and Burden, R, (2000). *A survey into the mainstream, teachers' attitude towards the inclusion of children with special needs in the ordinary classroom*, Educational psychology 20(2) 191-211
- Al Shammari, Z. (2008) *Special education teachers' attitude towards autistic students in autism Schools in Kuwait*, Kuwait.
- Autism society of Kenya, (2010) <http://www.media-dis-n-2010,kenya-dat.blogspot.com/>
- Audu, E. I. & Egbochuku, O. (2010) *Autism among primary school pupils in Benin Metropolis: Implications for counseling*, University of Benin, Benin City.
- Baglieri , S (2007). *Constructing the LRE*; Paper presented at disability studies in education conference , Chicago.
- Banda, D. &Hart.S. (2010.) *Increasing peer-to-peer social skills through direct instruction of two Elementary school girls with autism*, Texas, USA
- Barrett,S, Prior & Manjiviona,J. (2004) *Children on the borderlands of autism differential characteristics in social, imaginative, communicative and repetitive behavior domains*www.sagepublications.com)Barbara, California, USA.
- Elkins, J, Kraayenoord, C.E & Jobling, A (2003) *Parent's attitude to inclusion of their children with special needs*; Journal of research in special education needs, vol3pp122-129, Queensland, Australia.
- European Agency for Development in Special Needs Education (2010) *Teacher Education for Inclusion*, International Literature Review.
- Egel, L. A, Richman, G.S & Koegel, R. (2010) Journal of applied behavior analysis; *Normal peer models and autistic Children's learning*, Santa Barbra, California, USA.

Ferreira, H. and Graça, R. (2006) *Special educational needs: An experiment in teacher education in Portugal*.

Frederickson, N, Jones, A.P & Lang, J. (2010) *Journal of research in special education needs: Inclusive provision options for pupils on the autistic spectrum* vol.10, pp63-73, University College, London, UK.

Fuadai and Cornelius (2010), *Catering for children with special needs in the inclusive education: Challenges and the way forward*, Faculty of Education Nasarawa State University,

Gelfand .D.M and Drew .J.C. (2005) *.Understanding child behavior disorders*, 4th Ed. New York.

Government of Kenya (2007). *The persons with disabilities (amendment) bill*, government Printer.

Government of Kenya (2003) *Education Act*, Government printer, Kenya.

Guldborg. K. (2010) *British journal of special education: Educating children on the autism spectrum: preconditions inclusion and notions of best autism practice in the early years*, Blackwell publishing,UK.

Grönlund , A, Lim, N & Larsson, H.(2010) *Effective Use of Assistive Technologies for Inclusive Education in Developing Countries: Issues and challenges from two case studies;* International Journal of Education and Development using Information and Communication Technology Vol. 6, Issue 4, pp.5-26, Orengo university, Sweden..

Harris, S. L& Handleman, J. S. (2000) *Journal of Autism and developmental disorders; Age and IQ at Intake as Predictors of Placement for Young Children with Autism*, vol 30, pp137-142, Plenum Publishing Corporation, New Jersey.usa.

Harrower & Dunlap (2001) *Including Children with Autism in General Education Classrooms. A Review of Effective Strategies*, University of South Florida, USA.

Harshberger (2010) <http://www.behaviour.org/>

Horrocks, J.L, White, G & Roberts.(2008) *Principals' attitudes regarding inclusion of children with autism in Pennsylvania public schools*; Journal of autism and developmental Disorders, Pennsylvania,usa.

Houston, C & Liebman,L.J .(2010) *Strategies for Teaching Students with Autism in Physical Education*.www.Questionia.com

ILO (2009). *Inclusion of People with Disabilities in Kenya*, Kenyan National Bureau of Statistics, <http://www.cbs.go.ke/>,

Jones, V. (2007).British journal of special education: '*I felt like I did something good*' – *The impact on mainstream pupils of a peer tutoring programme for children with autism*, Shropshire, UK.

Kanu, S. A. (2008). Special Needs Education in Perspective. *In Educating Children with Autism*, University of California, Santa Barbara, USA.

Kluth, P. (2003). *You're going to Love this Kid*. Baltimore: Brookes.

Koegel. R. and Kathleen (2001). *The influence of child-preferred activities on autistic children's social behavior* university of California, Santa Barbara, usa.

Lindgren ,K. A, Folsten, S.E, Tombin, B & Flusberg-Tager,H (2009) *Research article: Language and Reading Abilities of Children With Autism Spectrum Disorders and Specific Language Impairment and Their First-Degree Relatives*, interScience, Boston.

Locke, J, Ishijima, E. H & Kasari, C. (2010) *Loneliness, friendship quality and the social networks of adolescents with high-functioning Autism in an inclusive school setting*; Journal of Research in Special Educational Needs,v.10,pp74-81, University of California, Los Angeles, USA

- Lovaas, I. (1987) *Journal of consulting and clinical psychology; Behavioral treatment and normal educational and intellectual functioning in autistic children*, vol55,pp 3-9 American psychological association. Inc.los Angeles.
- Mulick.J.and Buter. E. (2002). *Behavior intervention for children with autism*, Ohio state university, Wily interScience, USA.
- Mugenda .O and Mugenda .A.G (2003). *Research Methods. Quantitative and qualitative approaches*, ACTS, Nairobi, Kenya.
- Ministry of Education (2000). *Teaching students with autism*. A resource guide for schools, British Columbia.
- Noterdaeme, M. Milderberger, K & Amorosa,H (2002) *Parent information and direct observation in the diagnosis of pervasive and specific developmental disorders*,vol6(2),pp159-168, sage publications, Germany.
- Ogletree,B.T, Pierce, K,Harn, W.E & Fischer, M,A. (2002) *Assessment for effective intervention. Assessment of communication and language in classical autism*,hammill institute on disabilities and <http://www.aeisagepub.com>
- Olabisi (2010) *Child Care and Special Needs Education in Nigeria* (PP 1-12) Jos. Centre for Learning Disabilities and Audiology, Nigeria.
- Orodho, J.A. (2008). *Techniques of writing research proposals & reports in education and social Sciences*, Kanezja Enterprises, Maseno, Kenya.
- Orodho, .A. (2009) *Elements of education and social science Research Methods*, 2nd ed Kanezja, Maseno, Kenya.

- Park, M & Chitiyo, M. (2011), *Journal of research in special needs education; An examination of teacher attitudes towards children with autism*, vol1, pp-70-78, southern Illinois university, USA.
- Park, M, Chitiyo, M & Choi, Y.S, (2010) *Examining pre-service teachers' attitudes towards children with autism in the USA*; *Journal of special education needs*, vol 10, pp107-114, Southern Illinois University, USA.
- Pearson, S. (2007) *Exploring inclusive education: Early steps for prospective secondary school teachers*. *British Journal of Special Education*, 34 (1), 25-32, London.
- Pearson, S. (2009) *Using activity theory to understand prospective teachers' attitudes to and construction of special educational needs and/or disabilities*. *Teaching and Teacher education*, London.
- Potter, C. & Whittaker, P. (2001). *Enabling Communication in Children with Autism*, London:
- Regional seminar, (2007). *Poverty alleviation, HIV & AIDS education and inclusive education: priority issues for inclusive Quality Education in Eastern and western Sub-Saharan Africa*, Nairobi, Kenya.
- Robertson, K, Chamberlain, B & Kasari, C (2003) *General education teachers' relationships with included students with autism*; *Journal of Autism and Developmental Disorders*, vol. 33, no. 2, pp. 123–130, View at Google Scholar .
- Rodriguez, I. R, Saldana, D& Moreno, F. J. (2011) *Support, inclusion, and special education; Teachers' attitudes towards the education of students with spectrum disorders*, Spain.
- Saleemi .N. A. (2009) *Statistics simplified*, ACME press (Kenya) LTD, Nairobi, Kenya.

- Sandra I. (2010) *Age and IQ at intake as predictors of placement for young children with autism: a four- to six-year follow-up*, Buck well publishing, London.
- Sansosti and Frank. J. (2010) *Teaching psychology in schools; Teaching social skills to children with autism spectrum disorders using tiers of support: A guide for school-based professionals*, www.interscience.wiley.com
- Shea T and Bauer (1994). *Learners with disabilities*. A social system perspective of special Education, Brown communications Inc., USA.
- Sherman, (2010) *Educational placement of children with autism.*, California, Santa Barbra, USA.
- Simpson, R .L, Boer-Ott, S.R & Smith-Myles (2003) *Inclusion of learners with autism spectrum disorders in general education settings*; Topics in Language Disorders, vol. 23, no. 2, pp. 116–133, View at Scopus
- Stokes.S. (2010) *Assistive Technology for children with Autism, CEASA 7*, Wisconsin
<http://www.specialed.us/autism/assist>.
- Theodorou. F and Melanie. N. (2010) *Journal of Research in Special Educational Needs*,vol10, pp99-106;*Inclusion in play: A case study of a child with autism in an inclusive nursery*, University of Southampton,UK.
- Tuman, (2008). *Global health governance; Autism and Special Education Policy*, Mexico.
- U.N (2008) *Global focus on autism speaks*, New York.
- UNESCO (2009) International bureau of Education; International conference: *Inclusive education the way of the future*, Geneva.
- UNESCO, (2008) International conference on education: *The way of the future 28th session*, Geneva. <http://www.ibe.unesco.org/fileadmin/user>

UNESCO (2007) Regional seminars, "*Poverty alleviation, HIV and AIDS education and inclusive education priority issues for inclusive quality education in in eastern western sub Saharan Africa*", IBE, Nairobi, Kenya.

UNESCO (1994). The Salamanca statement. *Framework for action on special needs*, MOE, Spain.

Volkmar , F, R, Lord, C, Bailey, A, Scultz, R. T&Klin, A. (2004) Journal of psychology and psychiatry; *Autism and pervasive developmental disorders* ,vol-1 45, pp135-170, Yale University, USA and Oxford University, UK

Wamae, G.M &. Kamau,R.W.K. (2004). British journal of special education needs; *The concept of inclusive education: Teacher Training and acquisition of English language in the hearing impaired*, Kenyatta University, Kenya.

Weiss, M.J. (2010) *Expanding ABA intervention in intensive programs for children with autism: The inclusion of natural environment training and fluency based instruction*, Rutgers University, USA.

Whitbread, K. (2007) *The Inclusion Notebook Inclusive Education and Autism University of Connecticut www.uconnuccedd.org2007*

APPENDIX II: TRANSMITTAL LETTER

Kiama Veronicah

L50/77104/2009

University of Nairobi

College of Education and External studies

School of continuing and distance learning

Department of Extra Mural studies

The Principal/Head teacher

-----primary school

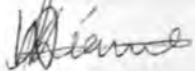
Re: Factors that hinder promotion of autistic children into the inclusive education.

I am an MA in project planning and management student registered in the department of continuing education and distance studies, University of Nairobi. I am carrying out a study on the factors that hinder promotion of autistic children into the inclusive education.

Please, cooperate and assist me in completing the questionnaire as honestly as possible. The information you give was treated with great confidentiality and will not be used for any other purpose other than this research.

Your response was highly appreciated. Please do not write your name.

Yours faithfully,



Veronicah kiama

MA student in project planning and management

University of Nairobi

0710396840.

APPENDIX III: TEACHER'S QUESTIONNAIRE

This Questionnaire is aimed at gathering information on the factors that hinder promotion of autistic children into the inclusive education.

You are requested to participate in this study by filling in the questionnaire. The information you give will be treated confidentially and will only be used for the sake of this study. Do not write your name or any other form of identification. Please respond to all items.

SECTION: A. DEMOGRAPHIC INFORMATION

Please tick as appropriate.

1. Indicate your gender.

- a) Male () b) female ().

2. What is your age? a) below 20 years () b) 20 - 30 years () c) 30 - 40 years ()

- d) above 40 years.()

3. Indicate your teaching experience?

- a) Below 1 year () b) 1 – 5 years () c) 6 – 10 years ()

- d) 11 – 15 years () e)16 and above years.()

4. What are your highest academic qualifications?

- a) Med () b) Bed () c) diploma in education () d) certificate in education ()

Any other specify.....

5. For how long have you been in this school?

- a) below one year () b) 1 - 5 years () c) 6 - 10 years d) 10 - 15 years ()

- e) above 16 years ()

6. What is the category of your school?

- a) Inclusive learning () b) integrated school ()

SECTION B: RESOURCES.

1. Classrooms in my school are designed for autistic children?

a) Strongly agree b) agree c) disagree d) strongly disagree

2. Do you have separate sanitary facilities for autistic children? a) Yes () b) No ().

3. Do you have physiotherapy equipment for autistic children? a) Yes () b) No ().

5. If no in 9 above what do you substitute with? -----

6. What challenges do the autistic learners have while using these facilities in the school?-----

8. Do the physical facilities affect the promotion of autistic children to the inclusive education?

Yes () No ().

if yes explain how-----

9. Do you have learning resources specifically for autistic children? a) Yes () b) no.

10. Do you have a resource room for those children with autism in your school? a) Yes b) No

11. How do you rate the learning resources in your school?

a) Very adequate b) adequate c) inadequate d) very inadequate e) can't tell

12. Do you have enough teachers for the autistic class? Yes () No ().

13. Apart from teachers, who else is involved in taking care of autistic children in the classroom?

14. How do you rate the staffing levels in your school?

a) Very adequate (). b) Adequate (). c) Inadequate (). d) Very inadequate ().

SECTION C: INSTRUCTIONAL METHODS

15. How do you rate the instructional methods used in the autism class?

- a) Appropriate () b) inappropriate () c) not sure ()

16. The instructional methods used in my class are favorable to the autistic children.

- a) Strongly agree b) agree c) disagree d) strongly disagree e) not sure

17. The instructional methods used in my class are favorable for an inclusive setting.

- a) Strongly agree b) agree c) disagree d) strongly disagree e) not sure

support your answer in 17 above -----

18. The instructional methods used can affect the promotion of autistic children into the inclusive education? a) Strongly agree b) agree c) disagree d) strongly disagree e) I don't know.

SECTION D: SPECIAL TRAINING FOR TEACHERS

19. What makes most teachers not undertake special education training? -----

20. Do you think training teachers in autism would help in promoting autistic children into the inclusive education? a) Yes () b) No ()

21. justify your answer in 13 above?-----

22. Have you taken any course in autism to aid you in handling autistic children? Yes () No ()

23. In what ways do you think training teachers in autism would help in promoting autistic children into inclusive education.-----

SECTION E. TEACHERS ATTITUDE

Fill in the form by ticking the number which much your answer.

Table 3.2 Teachers' attitude

a)strongly disagree b)disagree c)uncertain d) agree e) strongly agree.	a	b	c	d	e
24. Behaviors of children with autism are disruptive and negatively influence the behavior of children around them					
25. Only teachers with extensive special education training can help a child with autism					
26. Schools with both typically developing children and children with autism enhance the learning experiences of children with autism					
27. Typically developing children and children with autism should be taught in separate classes					
28. I would not want the children in my class to have to put up with children with autism					
29. If I had a choice, I would teach in a school where there are no children with autism					
30. It's unfair to ask teachers to accept children with autism into their inclusive education.					
31. Children with autism cant socialize well enough to benefit from contact with typically developing children.					
32. Regular schools are too advanced for children with autism					

a) My child would learn from other non disabled learners. ()

b) My child would not benefit at all. ()

13. What do you have to say about the education of autistic children in public schools? -----

14. What do you suggest could be done to increase access to inclusive education for autistic children?-----

APPENDIX VI: FORM**Table .A. 5. Promoting autistic children into the inclusive education.**

Name of school	Number of children promoted
Buruburu 1 primary	1
City primary	4
Kasarani primary	-
Kilimani primary	-
Ruthimitu primary	-
Mathare primary	-