INCLUSIVE EDUCATION FOR CHILDREN WITH AUTISM; CHALLENGES FACING TEACHERS AT CITY PRIMARY SCHOOL, NAIROBI PROVINCE, KENYA

BY
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APRIL 2011
DECLARATION

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

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I dedicate this thesis to my beloved husband, Benson Munala and our sons, Kevin Mukoko Munala and Ian Makatiani Munala

“May God bless you with long life”
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TABLE OF CONTENTS

Declaration...........................................................................................................ii
Dedication.............................................................................................................iii
Acknowledgement..................................................................................................iv
Table of content....................................................................................................v
List of figures..........................................................................................................x
List of tables..........................................................................................................xi
List of Abbreviations and Acronyms.......................................................................xii
Abstract..............................................................................................................xiii

CHAPTER ONE
INTRODUCTION

1.0 Introduction.....................................................................................................1
1.1 Background to the Study................................................................................1
1.2 Statement of the Problem...............................................................................4
1.3 The Purpose of the Study..............................................................................5
1.4 Objective of the Study...................................................................................5
1.5 Research Questions.......................................................................................6
1.6 Significance of the Study...............................................................................6
1.7 Scope and Limitation....................................................................................7
1.8 Research Assumptions..................................................................................7
1.9 Theoretical Frameworks /Conceptual Frame work ..............................................8
1.9.1 Theoretical Frameworks..................................................................................8
1.9.2 Conceptual Frame work..................................................................................9
1.10 Definition of Operational Terms.......................................................................12

CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction ........................................................................................................13
2.1 History of Autism..................................................................................................13
2.2 International Policy on Inclusive Education.......................................................15
2.3 Inclusive Education practices Around the World..............................................19
2.4 Environmental and curricular modification......................................................24
2.5 Support services for inclusive education..........................................................26
2.6 Inclusive School and Collaboration....................................................................28
2.7 Summary of Reviewed Literature......................................................................30

CHAPTER THREE
RESEARCH METHODOLOGY

3.0 Introduction.........................................................................................................31
3.1 Research Design...................................................................................................31
3.1.1 Research Variables..........................................................................................31
3.2 Location of the Study..........................................................................................32
3.3 Target Population of the Study..........................................................................32
CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction .................................................................39
4.1 Respondents’ Biodata ......................................................39
4.2 Education Policies on Inclusive Education .........................42
4.3 Environmental and Curricular Modification ........................43
4.4 Support Systems ..........................................................51
4.5 Collaboration and Team Commitment ................................54
4.6 Challenges in Implementation of Inclusive Education ...........55
4.7 Chapter Summary ..........................................................59
CHAPTER FIVE

SUMMARY, CONCLUSIONS, RECOMMENDATION AND SUGGESTION FOR FURTHER RESEARCH

5.0 Introduction

5.1 Summary

5.2 Implication of Findings

5.3 Conclusion

5.4 Recommendation

5.5 Suggestion for Further Research

REFERENCES
APPENDICES

APPENDIX A: Questionnaire for Regular Teacher and Special Education Teacher .....78

APPENDIX B: Interview Schedule for the Head teacher........................................80

APPENDIX C: Focused Group Discussions for Occupational Therapists................81

APPENDIX D: Interview Schedule for the Heads of Departments..........................82

APPENDIX E: Interview Schedule for the Ministry of Education Officials..............83

APPENDIX F: Questionnaires for Teacher’s Aides........................................... 84

APPENDIX G: Institutional Observation Schedule................................................86

APPENDIX H: Letter of Authorization......................................................................89
LIST OF FIGURES

FIGURE 1.1 Factors Associated with Inclusive Education for Children with Autism ....11
FIGURE 4.1 Gender Distribution of the Teachers respondent in School..................39
FIGURE 4.2 Mean Number of Children taught by Teachers per day..........................50
FIGURE 4.3 Teacher’s role in Teaching Children with Autism.................................51
LIST OF TABLES

Table 3.1 Sample Composition .................................................................33
Table 4.1 Respondents’ Bio-data...............................................................40
Table 4.2 Teaching Children with Autism at City Primary School...............46
Table 4.3 Types of Curriculum used..........................................................48
Table 4.4 Times Taken to Prepare a Child with Autism For Inclusive Education...48
Table 4.5 Average Time Spent Per Day with Children..................................49
# LIST OF ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ADL</td>
<td>Activities of Daily Living</td>
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<tr>
<td>APA</td>
<td>American Psychiatric Association</td>
</tr>
<tr>
<td>ASA</td>
<td>American Society of Autism</td>
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<tr>
<td>ASD</td>
<td>Autism Spectrum Disorder</td>
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<tr>
<td>ASK</td>
<td>Autism Society of Kenya</td>
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<tr>
<td>CWA</td>
<td>Children with Autism</td>
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<tr>
<td>DFID</td>
<td>Department for International Development</td>
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<tr>
<td>EARS</td>
<td>Educational Assessment and Resource Services</td>
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<tr>
<td>GoK</td>
<td>Government of Kenya</td>
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<tr>
<td>EFA</td>
<td>Education for All</td>
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<td>FAPE</td>
<td>Free and Appropriate Public Education</td>
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<td>FGD</td>
<td>Focused Group Discussion</td>
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<td>IDEA</td>
<td>Individuals with Disability Education Act</td>
</tr>
<tr>
<td>IEPs</td>
<td>Individualized Educational Plan</td>
</tr>
<tr>
<td>KIE</td>
<td>Kenya Institute of Education</td>
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<tr>
<td>KISE</td>
<td>Kenya Institute of Special Education.</td>
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<tr>
<td>MH</td>
<td>Mentally Handicapped</td>
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<tr>
<td>MoE</td>
<td>Ministry of Education</td>
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<tr>
<td>MOEST</td>
<td>Ministry of Education, Science and Technology</td>
</tr>
<tr>
<td>PL</td>
<td>Public Law</td>
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<tr>
<td>SNE</td>
<td>Special Needs Education</td>
</tr>
<tr>
<td>TA</td>
<td>Teachers’ Aides</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Education, Scientific and Cultural Organization</td>
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<tr>
<td>UPE</td>
<td>Universal Primary Education</td>
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<td>USA</td>
<td>United States of America</td>
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</table>
This study looked at inclusive education for children with autism at City Primary School in Nairobi Province, Kenya. The school was purposively sampled because it is the first school to practice inclusive education for children with autism in Kenya. Inclusive Education is the process of educating children with disability with those without disability in ordinary regular schools by catering for needs of all children irrespective of their ability or disability through appropriate curricula, organizational arrangements, teaching strategy, resource use and partnership with communities. Research studies show that countries like America, Britain, and China are practicing inclusive education for children with autism with America having 52% separate classroom, 19% separate facilities, 14% general classroom, 12% resource room, 2% home hospital and 2% residential facilities. In Kenya no studies have been done on inclusive education for children with autism, therefore this study was intended to bridge this gap. A case study design was adopted for this study; the sample comprised 50 respondents who were purposively sampled from the entire population of the 75 respondents. The respondents included; the head teacher, 4 heads of departments, 8 special education teachers, 12 regular teachers, 15 teacher’s aide 7 occupational therapists and 4 Ministry of Education officials from Special Education needs department. Questionnaires, interview schedules, focused group discussions and observation schedules were used. Piloting of the instruments was done in Buruburu 1 Primary School in Nairobi Province because it is a Public City council school with similar administrative structure like City Primary School. The data was analysed thematically. The collected data was categorized in relation to objectives of the study; The analysis involved developing a coding system based on samples of collected data, classifying major issues or themes covered. The same data was reread to highlight key quotations or insights and interpretations. All the coded materials under the major themes identified were put together for summarization of the report. The analysed data was graphically presented by histograms, graphs, bar graphs, and pie charts. The results showed that there were specific policy guidelines on inclusive education in Kenya. The results also revealed that City primary School has environmental adaptations and classroom modification to suit the diverse needs of the learners in the School. The results further revealed that the School collaborated with the home and the community of Children with autism. However the study found that lack of a curriculum in the special unit for CWA was a hindrance to teaching children with autism. In conclusion, the findings of the study revealed that children with autism can learn in an inclusive set up. Lastly the study recommends to the Ministry of Education to have an independent department with the ministry to monitor the implementation of inclusive education. The study also suggests further research to be carried on the influence of the family background of a child with autism towards inclusive education. Similarly another study should be carried out to investigate the attitudes of the parents and regular learners without disability towards inclusive education.
CHAPTER ONE
INTRODUCTION

The chapter highlights the background to the study, statement of the problem, purpose and the objectives of the study, research questions, significance of the study, delimitation and limitation of the study, research assumptions, theoretical and conceptual frameworks.

1.1 Background to the Study

The word autism is derived from the Greek word “auto” which means “self”. An Austrian psychiatrist, Leo Kanner, first used it in 1943. Autism can be defined as a neurological disorder that typically appears during the first three years of life and causes discrepancies or differences in the way information is processed (Jordan, 1990). Recently, autism has been defined as a developmental disorder (Goldberg, Landa, Lasker, Cooper & Zee, 2000; Cooper, & Zee 2000), as a neurodevelopment disorder (Pelphrey, Sasson, Reznick, Paul & Goldenman, (2002), as a neuropsychiatric disorder (Vrancic, Nanclares, Soores, Kulesz, Mordizinski, Plesbst & Starkstein (2002), and as a treatable medical condition (Okwemba, 2003a, 2003b). Similarly, Individuals with Disability Education Act (IDEA 1997), defines autism as a developmental disability significantly affecting verbal and non-verbal communication and social interaction, generally evident before age 3, that adversely affects a child's educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory
experiences. The term does not apply if a child's educational performance is adversely affected primarily because the child has a serious emotional disturbance. Autism was added as a separate category of disability in 1990 under P.L. 101-476. This was not a change in the law so much as it is a clarification. Students with autism were covered by the same law previously, but now the law identifies them as a separate and distinct class entitled to the law's benefits. The five disorders associated with Autism Spectrum Disorders (ASD) are Autistic Disorder, Rett’s disorder, Childhood Disintegrative Disorder, Asperger’s Syndrome, and Pervasive Developmental Syndrome (not otherwise specified). In all the five areas, an individual experiences impairments in multi-functioning areas.

Inclusion is rationality-based on the conviction and understanding that education is a fundamental human right and the base for a just society. In fact, the nature of inclusive education affirms that every school should be able to cater for all children including those with varied disabilities and abilities. Inclusive education also advocates for transformation of ordinary schools and regular schools so that they cater for all children irrespective of their disability. Inclusive education therefore, accommodates both diverse style and rates of learning and ensures quality education through appropriate curricula organizational arrangement, teaching strategy, resource use and, partnership with communities, (Kirk, Gallagher and Anastasiow, 2003). Countries such as USA and Britain have put inclusive settings in place to impress the programme of ensuring that regular institutions are ready to incorporate learners who are disabled (Gearheart & Wistatin,1984).
In China, the education for children with disabilities was addressed by law to protect and safeguard the rights of individuals with disabilities. In practice, students with disabilities, including autism, in regular schools use the same curriculum as all other students, but are exempted from taking tests designed for their typically developing peers (Sun, 1990). However, this practice impedes the proper documentation and assessment of behaviour and academic progress for children with autism in China. In South Africa, introduction of inclusive education was a direct response to Act 108 of 1996, which states that, implementation of inclusive education in South Africa is guided by Education White Paper 6 (Department of National Education, 2001). The National Department of Education prepared the draft guidelines to be used or followed in the performance of certain tasks for the implementation of inclusive education. In Zimbabwe, there is no specific legislation for inclusive education (Mpofu, 2004). However, a number of government policy issues are consistent with the intent of inclusive education for example Zimbabwe Education Act (Education Act, 1996). The Disabled Persons Act 1996 of Zimbabwe requires that all students, regardless of race, religion, gender, creed and disability, have access to basic or primary education up to grade 7. Any school which refuses to enroll a child on the grounds of disability is in violation of Disabled Persons Act (1996) and faces disciplinary action from the District Education Office.

In Kenya, autism is a disorder that is not well-known or understood. Traditionally, autism was seen as a psychiatric disorder, a curse or a consequence of witchcraft. Most children with autism were usually hidden away in homes, locked behind doors, or chained for life. Others were brought up in isolation, mental hospitals or in jails
and other corrective custodial institutions. In 2003, a group of parents led by Felicity Ndungu decided to form the Autism Society of Kenya (ASK) that lobbies for autism to be classified as a category on its own and in the same year the, Ministry of Education acted on the parents’ demands and established the first public special unit for children with autism at City Primary School in Nairobi (Okwemba 2003a & 2003b).

Kenya does not have specific legislation on inclusive education for children with autism. However, the launch of The National Special Needs Education Policy in March 2010 was a prime move towards the attainment of the Education for All goal. The policy advocates for provision of education for children with special needs through regular schools as opposed to the prevailing practice of using special schools and special units (MoE, 2009). The policy further emphasizes that “The MoE shall recognize and reinforce inclusive education as one of the means for enabling children with special needs to access education”. It is against this background that the study sought to find out the challenges faced by teachers educating children with autism at City Primary School.

1.2 Statement of the Problem

Historically in Kenya, special needs education mainly catered for four categories of disabilities, namely: hearing impairment, visual impairment, mental handicap and those with motor difficulties. Education for these children is offered in special schools, special units, integrated programmes, and to some extent in regular schools. This practice left out various groups of children with special needs, who included
children with specific learning difficulties, communication difficulties, autism, emotional, behavioural difficulties and the gifted and talented. Despite this exclusion, the demand for special needs education at all tiers of education in Kenya increased due to the government commitment to Universal Primary Education (UPE); the establishment of educational assessment and resource services (EARS); increase in public awareness, enactment the Children’s Act (2001) and declaration of Free Primary Education (FPE) in 2003. The high demand for Education for All led parents of children with autism to lobby for autism to be classified as a separate disability category for effective education placement. It is from this background that the researcher sought to establish the challenges facing teachers educating children with autism at City Primary School, focusing on environmental, curricula, attitudinal and socio-psychological factors in relation to education for children with autism.

1.3 Purpose of the Study

The purpose of the study was to investigate the challenges experienced by teachers educating children with autism (CWA) in an inclusive setup at City Primary School.

1.4 Objectives of the Study

The study was guided by the following objectives

i) To establish existing policies on inclusive education in Kenya.

ii) To establish environmental adaptation, facilities, and curricula modification that are in place for inclusive education at City Primary school.

iii) To establish support systems that are offered to children with autism at City Primary School.
iv) To identify various collaborative team commitments among personnel in service provision for children with autism.

v) To identify challenges facing teachers at City Primary School in the education for children with autism.

1.5 Research Questions

The study sought answers to the following address questions:

i) What policies exist on inclusive education in Kenya?

ii) What environmental adaptation, facilities and curricula modification are in place for inclusive education for children with autism at City Primary School?

iii) What support systems are in place for children with autism?

iv) What collaborative teamwork exists among personnel in service provision at City Primary School?

v) What challenges do teachers at City Primary School face in inclusive education for children with autism?

1.6 Significance of the Study

The study intended to complement existing studies, and contribute to new knowledge gap in the area of inclusive education for children with autism. The findings of the study may aid the government and policy-makers to improve on the existing education policies with regard to inclusive education for children with autism. It is hoped that the findings of this study can be used to enhance the development of a special education curriculum for children with autism. The results of this study would also facilitate the teachers in changing their teaching strategies and attitudes towards
including children with autism in regular classes. It is also hoped that the results of this study would promote collaborative teamwork among personnel in service provision. The study also hopes to form a foundation for further research in successful implementation of inclusive education for children with autism not only at City Primary School, but elsewhere in Kenya.

1.7 Scope and Limitation
This study was carried out at City Primary School in Nairobi North District. The respondents of this study were both teaching and non-teaching staff at the school and the Ministry of Education officials in Special Needs Education Department. Since this is a case study, the findings may not necessarily be generalized to other primary institutions. The study was limited to sources of information because there are few studies in the area of inclusive education for children with autism in Kenya. It may also be difficult for children with autism to participate in the study due to communication and cognitive difficulties experienced by the learners. As a result, the participants of the study were limited to special education teachers, regular teachers, teacher’s aides, occupational therapists and Ministry of Education officials.

1.8 Research Assumptions
The study assumed that both the teaching and non-teaching staffs at City Primary School were willing to participate in the study. The study also assumed that participants were truthful and honest in their responses to questionnaires and would represent the needs of children because these children have difficulties in expressing themselves.
1.9 Theoretical Framework and Conceptual Framework

1.9.1 Theoretical Framework

Autism is a new area of focus in terms of knowledge and classification as a disability, and therefore, there is very little knowledge and preparation for inclusive education for children with autism. The learners have also trouble in social interaction, communication and imagination. To minimize these difficulties, there may be need for collaboration and concerted efforts from various experts. Many models for facilitating collaboration among special education teachers and special education teachers have been developed over the years (Deno & Mirkin, 1977; Knight, Meyers, Hasazi, Paolucci-whilcomb & Nervin 1981, Nelson & Stevens, 1981, Idol-Maestus, 1983, Pugach & Johnson, 1988, Fuchs Fuchs & Bahr 1990, Simpson & Myles, (1993). The study was guided by Autism Inclusive Collaboration Model developed by Miles and Simpson (1998). This model calls for the collaboration of the teaching and non-teaching staff. The model has four components for successful inclusion of students with autism: The first component is environmental and curricula modifications and general classroom support. It involves appropriately trained support staff, reduced class size, collaborative problem solving and availability of paraprofessional. The component also calls for cooperative learning, integrative teaching, learning strategies and individualized instructions.

The second component is attitudinal and social support, which promotes preparation of teachers, school staff, and peers in developing positive relationship with students with autism. Positive attitudes can be fostered through shared beliefs about teaching and learning, assurance and support for educators in their instructional practices and
inclusion of children with autism. Administrators and families as well as special education teachers provide that assurance. The third component is a coordinated team commitment, which includes collaborative problem solving among teachers and provision of related service and personnel. It also calls for shared responsibility, which means that the special education teacher and regular teacher agree on clear indicators of student progress to enhance natural means of observing them within the context of regular class activities and accountability for adjusting instructional or behavioural practices if they are to be attained within a predetermined period.

The last component is home and school collaboration, which fosters partnerships with families in implementing programmes in both school and home setting. Any individual change is viewed within the context of the larger social and cultural setting and is most relevant to educational development of the learner with autism in school, family and community because this is where cultural conflicts, outlawed practices, sanctions and segregated education arise from. The Autism Inclusive Collaboration Model underscores the feasibility of inclusion for students with autism. Collaboration with professionals, families, students and communities can significantly increase successful inclusion for individuals with autism.

1.9.2 Conceptual Framework on Inclusive Education of Children with Autism

Figure 1.1 on Page 11 shows the conceptual framework on inclusive education for children with autism depending on the condition of the child, components of successful inclusion such as environment, curricula; attitudes, social support and coordinated teamwork are included. The child with autism exhibits various
characteristics related to communication, social, cognitive and sensory impairments. The absence of normal responsiveness to the above factors leads to societal segregation, wrong educational placement and sometimes exclusion. The figure also shows two different educational interventions that can be put into place to meet the educational needs for children with autism. The first is the segregated learning, which does not use any collaborative model. The segregated learning lacks environmental and curricula modification, social support and coordinated teamwork. There is labeling and name-calling; and teachers, parents and peers may have negative attitudes towards CWA. The child is also seen as a problem, different from others, has special needs, and needs special education and a special teacher. This results in rendering the child maladjusted and dependent. This system also leads to many children repeating classes or dropping out of school entirely.

On the other hand education intervention is inclusive learning which applies the four components of successful inclusion which are environmental and curricular modification, attitudinal and social support system, coordinated team work, home and school collaboration. In inclusive learning, the education system is seen as a problem. A series of changes in the education system and societal level are adjusted to meet the needs of all children, policies are formulated to address inclusion, flexible curriculum is adopted, school environment and classrooms are modified, and barriers are identified and removed. In inclusive learning, all learners benefit, a child becomes well adjusted, independent and becomes part of the larger society. “Inclusion is a dynamic approach of responding to pupil diversity and seeing individual differences not as a problem, but an opportunity for enriching learning.” (UNESCO, 2004a).
Figure 1.1 Factors associated with Inclusive Education for Children with Autism

CHILDREN WITH AUTISM

Segregated learning

- No environmental and curricula modification
- Negative attitudes
- No coordinated team
- Labelling and name-calling
- Parents not are not involved in educational planning

The child is seen as a problem

- The child is seen as different from others
- The child has special needs
- The child needs special environment
- Special needs teachers are needed

- One child’s needs are met at the expense of the others
- Leads to mal-adjusted child
- There are many repeaters in the school
- Many learners drop out of school
- The child develops dependency

The child is excluded from society

Inclusive learning

Four components of successful inclusion are used:
- Environmental and curricula modification
- Attitudinal and social support
- Coordinated team commitment effort
- Home-school collaboration

The education system is seen as a problem

- Policies address inclusive education
- The curriculum is flexible for all learners.
- Changes are made at classroom and societal level
- School system is adjusted to meet the needs of all learners

All learners benefit
- The child becomes well adjusted
- The child becomes independent
- The child develops high self-esteem

The child is included as part of the entire society

Source: Researcher 2010
1.10 Operational Definitions of Terms

**Autism:** A developmental disorder apparent before 30 months of age and demonstrated by a pervasive lack of responsiveness to other people communicative disorder.

**Collaboration:** This is a process whereby people of different professions work together to achieve the same goal.

**Inclusion** This is the philosophy which focuses on the process of adjusting at home, in the school and society so that all individuals, regardless of their differences, can have the opportunity to interact, play, learn, work and feel they belong to the community.

**Inclusive Education:** This is an approach in which learners with disability and special needs, regardless of age and disability, are provided with appropriate education within the regular schools.

**Integration:** This is a process through which learners with and or without special needs are taught together without curricular modification. The child is expected to adapt to the environment.

**Regular School:** This is an institution referred to as mainstream school which normally admits learners without disability.

**Teacher’s aide:** Staff that assist teachers in special needs education to carry out some of the duties due to the diversity of the learner’s need.
CHAPTER TWO
REVIEW OF RELATED LITERATURE

2.0 Introduction
This chapter reviews literature on the historical development of autism and inclusive education. Themes such as international policies on inclusive education; inclusive educational practices around the world; environmental and curricula modification; attitudinal and psycho-social support; inclusive schooling, collaboration, and conclusion are discussed.

2.1 History of Autism
The history of autism dates back to 1801, when Itard wrote about The Wild Boy of Averyron, an account of a 12-year-old boy who appeared to exhibit some characteristics that are now considered signs of autism. The boy, Victor, made no direct communication and was said to be self-absorbed; Victor never spoke and used gestures if he needed something. According to Schreibman (1988), Itard’s 1801 & 1972, description of Victor is in fact similar to the behaviours of children described by Kanner in 1943.

In 1901, Eugene Bleuler (1919) coined the word autism to describe schizophrenic patients who screamed themselves off and were self-absorbed. Kanner (1943) and Asperger (1944) independently borrowed the term autism from adult psychiatry to describe individuals with schizophrenia who experienced loss of contact with the outside world (Frith, 1996). Kanner borrowed Bleuler’s term “autistic” to describe the fact that his young patients could not relate emotionally to others. Bleuler
borrowed the term autism from the Latin root *auto* meaning *self*; Bleuler coined the term ‘autistic’ as an adjective to describe this type of self- centred thinking, while Kanner coined the phrase “autistic disturbances of affective (emotional) contact” to describe the condition of his patients who did not relate emotionally to others. Kanner changed the adjective into a noun and his first paper appeared with the adjective “autistic” in the title, it quickly morphed into “autism”, a thing. Before Kanner, those persons with severe autism were usually called idiots, imbeciles, elective mates, or severely retarded. Those with mild autism were usually called mildly retarded, borderline retarded, psychotic, psychopaths, seriously emotionally disturbed, or schizophrenic.

On the other hand, Asperger borrowed the same adjective from Bleuler as Kanner had. Asperger coined the term “autistic psychopath” to describe his patient’s inability to relate emotionally with others. Unfortunately, he published his findings in 1944 in the German language medical journal that went out of print during the Second World War. As fate would have it, his work remained unappreciated until it was translated into English and republished in 1981 by Wing, a British child psychiatrist during the revision and updating of the medical and psychiatric diagnostic manuals in the 1990s (the 10th International Classification of Disease). Finally, in 1991, autism was classified as a developmental disorder and researchers and practitioners began to take a developmental approach in the evaluation and treatment of autism (Ozononoff & Rogers, 2003).
2.2 International Policies on Inclusive Education

UNESCO (2001a) explains that “Inclusive education starts from the belief that, the right to education is a basic human right and the foundation for a more just society. Inclusive education takes the Education for All (EFA) agenda forward by finding ways of enabling schools to serve all children in their communities as part of an inclusive education system. Inclusive education is concerned with all learners, with a focus on those who have traditional opportunities such as learners with special needs and disabilities and children from ethnic and linguistic minorities”

Internationally, there are agreements signed over the last fifteen years, which provide an impetus to the promotion of Inclusive Education. These agreements include The UN Convention on the Rights of the Child and the World Conferences on Education for ALL, which took place in Jomtien in 1990, and Dakar in 2000, Article 2 which focuses on non-discrimination. It clearly states that every article applies equally, and without exception, to all children, irrespective of race, colour, sex, disability birth or other status (UNESCO 2001; 2003). This non-discrimination is also echoed in the UN Convention 2007 on the Rights of Persons with Disability in Article 24, which states that:

State parties recognize the right of persons with disabilities to education, with a view to realizing this right without discrimination and on the basis of equal opportunity, state parties shall ensure an inclusive education system at all levels and life-long learning. Access to quality education irrespective of impairments and disability require that this should be provided on the basis of equality of opportunity.

These articles form an important basis for EFA, as they support the ideas of inclusive education as a viable means of achieving this right and according all children equal
opportunities to education. The same views are shared in the Salamanca Statement on Principles, Policy and Practice in Special Needs Education (UNESCO, 1994) which provides a framework and guidance on developing inclusive education internationally. The conference recommended that schools should accommodate all children regardless of their physical, intellectual, social, emotional, linguistic or other conditions. As a result, 92 countries of the world including Kenya and 25 international organizations signed the Salamanca Statement and Frameworks for Action (1994) as a sign of their declaration and commitment to Inclusive Education. This Salamanca Statement is supported by, Kenya’s Children Act 2001 (GoK, 2001) which emphasizes that every child has a fundamental right to education and must be given an opportunity to achieve and maintain an acceptable level of learning and The National Special Needs Education Policy Framework (MoE, 2009), which advocates for, provision of education for children with special needs through inclusive education. With all this effort and advocacy, it is important to find out whether children with autism have been offered equal educational opportunities without discrimination. This study hoped to fill in this gap by looking at challenges facing teachers at City Primary School in the implementation of Inclusive Education for children with autism.

In 2000, the World Education Forum was held in Dakar to review progress and set new international targets for achieving EFA. The forum declared that EFA must take accounts of the needs of a range of marginalized groups, including the poor and the disadvantaged and those with special learning needs. In 2004, a workshop on Inclusive Education was held in Kisumu, Kenya. The participants were drawn from
ten countries in Africa, Pakistan and the United Kingdom. The workshop was organized by Leonard Cheshire International from 9th to 12th May 2004 to share experiences in Inclusive Education within the region, ten years since the Salamanca Conference and Four Years after the Dakar Frameworks for Action 2002.

One thousand and one hundred and eleven participants affirmed and observed the following as the existing gaps in the implementation of inclusive education in the world (Cheshire 2004). (i) Many governments embrace the philosophy of inclusive education only in principle. (ii) Within the 12 countries represented in the workshop, the understanding of the concept of Inclusive Education was inconsistent and largely inadequate (iii) Major barriers hindering implementation of Inclusive Education included lack of economic empowerment and social exclusion. (iv) Inclusive education found to be a dynamic process and is influenced by factors such as culture and religion. (v) Curriculum that supports Inclusive Education exists in few countries (vi) The context for implementing Inclusive Education tends to be charity-based despite policy and legislative changes. This study was meant to establish if similar gaps existed at City Primary School in their effort to establish inclusive education for children with autism.

In Kenya, there has been no legislation to guide Special Needs Education (SNE). However, The Kenya government has developed a number of policy guidelines for SNE dating back to 1964. These include: The Committee on Care and Rehabilitation of the Disabled chaired by Ngala Mwendwa (1964). The committee put emphasis on care and rehabilitation of persons with disabilities. The recommendations resulted in
Sessional Paper Number 5 of 1968. In the same year, 1964, the Ominde Report (Kenya Education Commission, 1964) found that many children with disabilities were learning in regular schools. It recommended their continuation in the same schools but called for teachers to be trained in skills to handle such children. This was the first base for inclusive education in Kenya. Forty-six years later, Kenya was yet to include skills for special needs education in its teacher training programmes.

In 1976, the National Committee on Educational Objectives and Policies (NCEOP) chaired by Gachathi, advocated for co-ordination of early identification and assessment of children with special needs and creation of awareness of the causes of disabilities with a view to facilitating prevention, among others. The Education Act-Cap 211 (revised edition 1980) states in part that, no pupil shall be refused to, or excluded from school on the grounds of sex, race or colour or on any other than reasonable grounds.

In 1988, the Presidential Working Committee on Education and Training for this Decade and Beyond, (Kamunge Report 1988) was the first committee that went to special institutions and interviewed stakeholders on special needs education. It also investigated the special categories of learners with special needs in education. This commission led to many children with special needs in education dropping out of school with the introduction of cost-sharing. In 1999, the Totally Integrated Quality Education and Training Commission was set up and chaired by Koech. The opening statement of this commission was “There is nothing more unequal than the unequal treatment of the unequal.” This is a pro-inclusive education statement. This report has
not been implemented in totality but most of the reforms currently taking places in education stress it.

In 2001, the Children’s Act was enacted. This law came about as a result of the Kenya law Reforms Commission set up to review laws in the country. In 2003, the Persons with Disabilities Act (PWDA) was enacted. The Act advocates for Kenya to ensure equal opportunities for persons with disabilities in obtaining education, employment and participation in everyday activities within their communities, and to prevent discrimination against the disabled. The Act would promote inclusive education, equal opportunities and full participation in education.

2.3 Inclusive Educational Practices around the World

Globally, educational philosophies related to children with special needs have undergone a transformation over recent decades. As a result, policy-makers, educators, and parents worldwide have made serious attempts to facilitate inclusive education practices (Avramidis & Norwich, 2002). To highlight the global nature of the efforts for improving the lives of more than 37 million people with disability in European Union, the year 2003 was declared the European Year of People with Disabilities (European Year, 2003). Due to this diversity in culture-based definition of special needs and that of inclusive education worldwide, the number of children with special needs and those who attend inclusive educational programmes varies widely. For example, the reauthorized IDEA (Individuals with Disability Act) serves approximately 6.5 million students aged between 3 to 21 years in the United States, three quarters of who are educated in inclusive settings (National Education
Association, 2003). Ninety per cent of the children with special needs in Spain are educated in inclusive settings. In Hungary, only 10 per cent of these children attend classes that implement inclusive pedagogy (European Agency for Development in Special Needs, 2003).

In Sweden, a research study by O’Brien (2007), in “A School for Everyone: the Swedish School System’s Struggles to Reconcile Societal Goals with School and Classroom Practices,” discusses her investigations into the connection between the values of Swedish society and classroom practices by way of the early childhood special education system. O’Brien describes Swedish educational policies and the challenges surrounding moving from policy to practice, and uncovers themes regarding classroom and school practices. The following themes regarding teaching emerged from her investigations: teaching for all students sometimes does occur in the general education class; social cohesiveness is an occasional priority; children’s differences were often accepted and respected at the pre-school level, although teachers’ attitudes were not as positive as children progressed through school; some teachers attempted to minimize the differences between remedial and ordinary teaching, although this was a struggle for some; and preparation of teachers to teach all children in the classroom remains a concern. This study also sought to find out the current practice in teaching children with autism at City Primary School.

In Australia, the article “School and Classroom practices in Inclusive Education in Australia,” by Van Kraayenoord (2007) reports on current inclusive education in Australian schools and classrooms, with a focus on the efforts of schools to become
inclusive. She also examines changing educational practices, including differentiated instruction (i.e., use of accommodations and modifications to lessons to make information accessible to students with disabilities) and Universal Design (i.e., careful creation of lessons that allow all students to access and participate in the same curriculum and student determination of the manner in which information will be accessed). Each approach is used in some Australian classrooms, and Kraayenoord recommends the use of both practices as helpful and complementary. She concludes by promoting inclusive educational practices in Australian classrooms and schools based on socially just practices that address specific school contexts as well as the diversity of students in the classroom, and recognize the benefits of such practices in international contexts. It is doubtful whether City Primary School classrooms have socially just practices for Children with autism. It is from this context that this study sought to establish what social-psychological support systems are in place to accommodate the diverse needs of children with autism at City Primary School.

Inclusive education in Qatar, by Al Attiyah and Lazarus (2007) described, in “Hope in the life”; the children of Qatar speak about inclusion, a project that involves interviews with both general and special education students during the transition of the students with disabilities from separate schools to inclusive situation in Qatar. They describe the children’s views about inclusion and explain that; overall, children demonstrated dichotomous feelings. In other words, they were apprehensive and curious, discriminatory and supportive, frustrated or sad and happy. The article includes a discussion and interpretations of the children’s responses as well as
recommendations for developing inclusive settings, based on the experiences of those involved in such a transition in Qatar. The study hopes to fill this existing gap.

In China, so far, no official data have been released regarding the number of individuals with diagnosis of autism. According to experts from the Institute of Mental Health, Beijing University, it is estimated that China has approximately 400,000 to 500,000 children between the ages 3 to 18 with autism at various levels of functioning (Jia, Personal Communication, November 26, 2005). However, due to lack of knowledge and awareness, autism has been misunderstood in Mainland China for years and has often been thought of as a rare illness that is contracted by relatively few individuals. Currently, the Official Diagnostic Criteria for Autism in China are listed in the Chinese Classification and Diagnostic Criteria of Mental Disorders, version 3 (CCMD), (Chinese Psychiatry Association, 2001). Similarly, autism has been misunderstood in Kenya and it is doubtful if in Kenya there are any classified diagnostic criteria for assessing and identifying autism condition.

Huang and Wheeler (2007) in “Including Children with Autism in General Education in China”; report that although social attention to the education of children with special needs began in the late 1970s, education for children with autism is the greatest challenge in special education in China. They point out that most school age children with autism are still kept out of both regular and special schools. In addition, the authors identify various factors that affect implementation of inclusive education. These factors are: lack of social awareness and acceptance of autism; reluctance from general education teachers in including children with autism in their classrooms
because of their lack of knowledge regarding such students’ characteristics and learning styles; parents are reluctant to include their children in regular classrooms due to the possible negative impact on the children’s’ academic and behavioural performance (Deng & Manset, 2000); some parents still believe that teaching children with autism is not worth the expense and the energy involved (Deng & Manset, 2000; McCabe, 2003; McCabe & Tian, 2001). The study was prompted to fill this gap.

In Africa an International conference held in Cameroon on “Inclusive Education; Major Issues and Priorities in Africa” had representatives from 15 countries which met in September 2008, in Yaoundé, Cameroon, to address issues of “Inclusive Education”. The 15 countries pointed out the following challenges: insufficient infrastructure; few qualified teachers; civil instability and unrest; and high national illiteracy rates. It is important to find out if City Primary School is experiencing similar challenges in the implementation of inclusive education for children with autism. This study hoped to fill the existing gap.

In South Africa, substantial researches have been done on inclusive education though limited research has focused on inclusive education for children with autism. However, a study conducted by Lomofsky and Lazarus (2001) examined the first steps in development of inclusive education in South Africa. The majority of the teachers surveyed in one study; Hay, Smith, Paulsen, (2001), felt unprepared and unequipped for working in inclusive classrooms. Bothma, Gravett; and Swart (2000) found South African primary teachers attitude towards inclusive education negative, therefore creating critical barrier to successful implementation of inclusive education.
However, some of the concerns raised about inclusive education in some South Africa were: lack of skills and competence; large classes; and insufficient resources (Engelbrecht, Forlin & Eloff, 2001). This study sought to find out if these concerns are experienced at City Primary School.

The government of Ghana since independence regards education as a fundamental human right for all its citizens and it has enshrined this right in the legal framework of education. The 1961 Education Act is the principal legislation concerning the right to education for all children in Ghana. The 1992 Republican Constitution of Ghana gave further provision and support for education as a basic human right for all citizens of Ghana. Some of the challenges experienced in inclusive education in Ghana were that teachers did not regard students with disabilities particularly those with sensory impairments as belonging in regular classes and would prefer them being in special schools. They believed that inclusion of students with disabilities would limit the amount of their workload, thereby resulting in incompletion of the syllabus. They also believe that if these students are included in regular classes, it would affect the academic performance of their peers without disabilities. The teachers also perceived that their professional knowledge and skills were inadequate to effectively teach students with disabilities in regular classes.

2.4 Environmental Adaptation, Facilities and Curricula Modification

Inclusive schools are dedicated to serve all students and share some characteristics, specifically: environmental adaptation, physical facilities and curricula modification. Cheshire (2004) says that, creating a welcoming and accessible environment in which
children can learn is a major part of inclusive education. Cheshire (2004) further explains that children need safe physical and social environment which is caring and stimulating. This means that the environment should be physically adapted by building ramps, constructing accessible toilets, enlarging classroom windows, painting walls to improve lighting, and levelling grounds. UNESCO (2004a: 2001) adds that, learners have diverse needs and inaccessible environment within and even out of the school may contribute in excluding them from learning institutions. To alleviate this problem, the environment should be adapted to suite the diverse learner’s needs. Similarly, this study also sought to establish what environmental adaptation was in place at City Primary School to accommodate children with autism.

Teachers in inclusive classrooms are concerned about reaching and motivating all learners. In the best cases, they are versed in adapting materials, lesson formats, instructional arrangements, curricular goals, and teaching strategies (Udvari-Solner, 1996) and can meet both the academic and social needs of students. The same views are held in the Kenyan’s National Special Needs Education Policy (MoE 2009) which points out that the curriculum is vital for inclusive education and that it should be responsive to different categories of children with special needs and disabilities. UNESCO (2003) explains that in any education system, the curriculum is one of the major obstacles or tools to facilitate the development of inclusion because children with special needs face different kinds of barriers in accessing education. The curriculum has to be structured and be implemented in such a way that all learners can access it.
Brown, Branston, Hamre-Nietupski, Pumpian, Certo and Gruenwald, (1979) point out those students with autism should have a functional curriculum which enables them to learn to perform essential tasks independently without assistance. Falvery, Grenot-Scheyer & Luddy, (1987) argues that their curriculum should not only be functional, but should also be age-appropriate. An age-appropriate curriculum considers what activities, materials, and places where the same age group perform, use, frequent, and desire, and provide similar content and conditions for the learners with autism. Falvery, et al. (1987) add that the curriculum should also be longitudinal, or vertically coordinated. This means that the skills, activities and content taught at one point in time should facilitate mastery of skills and activities that will be taught later. This can be ensured by establishing long-term goals, intermediate and short-term goals. Mittler (2002) asserts that, the curriculum must be sensitive to and responsive to diverse cultures, beliefs and values. There is need to find out what curriculum is used at City Primary School in the implementation of inclusive education for children with autism.

2.5 Support Services

Several scholars such as Voltz, Brazil, and Ford (2001), McLeskey and Waldron (2002), Shade and Stewart (2001), and Heflin and Bullock (1999), indicate that support throughout the school is the most significant factor that will increase positive teacher attitudes and acceptance of inclusion. If students are identified as benefiting from inclusion, then it is important that all teachers accept to include these children in their classrooms. Without positive teacher attitudes, inclusions will just be a physical placement of students with disabilities and it will not improve the development of all
students. With positive teacher attitudes, students with disabilities will be given more opportunities that are educational together with their peers and will more likely benefit fully. These views are supported by Mushoriwa (2001) who says that, attitudes are the greatest barrier or the greatest assets to the development of inclusive education. Attitudes influence our perceptions of challenges, strategies and goals to be achieved.

Through a review of research, both positive and negative teacher attitudes toward inclusion of students with disabilities are typically found. From studies reviewed, many of the teachers’ concerns are valid, and there are important factors behind teacher attitudes that can assist schools to improve inclusion experiences. McLeskey and Waldron (2002) found one negative teacher attitude toward inclusion was that the students in the classroom without disabilities noticed the differences between them and their peers, and rejected them by labelling and/or calling them names.

Overall, scholars such as Voltz, Brazil, and Ford (2001) and McLeskey and Waldron (2002), indicate that the most crucial factor behind positive teacher attitudes toward inclusion is that there is a support system in place. This means that the whole school needs to be supportive of inclusion and its benefits with support coming from all directions. Some examples of support are special education and general education collaboration and consultation; in class support for general education teachers such as team teaching or a teacher’s aide; ample time for planning; and on-going in-services or conference opportunities (McLeskey & Waldron, 2002). All of these opportunities provide, not only support from many directions, but education in the field of special
education. With these supports, the general education teachers should gain a strong sense of empowerment and be less fearful that they will not be able to handle their classrooms. This study also sought to establish what attitudinal and social-psychological support services were in place at City Primary School to enhance inclusive education for children with autism.

2.6 Inclusive Schooling and Collaboration

The Individuals with Disability Education Act (IDEA 2004) mandates collaboration decision making among parents and professionals, while Kalyapur and Kirtic (2001) emphasize that the parents can participate as experts in their own right. They also added that parents bring to the table holistic concepts of the child across time and contexts. They know the child better right from home to school. Cotton and Wikeland (2001) supports these views as they point out that parental involvement includes several forms of participation in education and within the school. Cotton et al., (2001) add that parents can support their children’s schooling by attending school functions and responding to obligations such as: parent–teacher conferences; helping their children improve their school-work; providing encouragement; arranging for appropriate study time and space, modelling desired behaviours; and taking the active role of in governing and decision-making necessary for planning, developing and providing education for children with special needs.

Collaboration calls for teamwork among various professionals. These are administrators, teachers, paraprofessionals, therapists, social workers, school counsellors, and psychologists. Other important members of the team are children
with autism, their peers and families (Kluth 2003). Every person in the team has a different area of expertise as well as a different set of experiences to share. Some members may be more familiar with community resources or curriculum and instruction. Therefore, it is critical for teams to take advantage of the contributions of all members. Collaboration is an important factor behind successful inclusion. This is especially valuable between special education and general education teachers.

According to Voltz, Brazil, and Ford (2001), it is important for the special education and general education teachers to collaborate on issues, concerns, and appropriate instruction and structure in the classroom for students with disabilities. Voltz, et al., (2001), also point out that the entire school staff should collaborate and work together to meet the needs of all students and should not leave special educators alone or as experts in the move toward more inclusive classes.

However, Leyser and Tappendorf (2001) reveal that it was useful if special education and general education teachers trained together in in-services or pre-services so they could share ideas and learn skills on how to effectively collaborate, team and teach together. Apart from regular teachers and special needs education teachers, inclusive education for children with autism requires that, different professionals who assist children with autism work collaboratively; these professionals include speech therapist, physiotherapists, occupational therapist, nutritionists and educational counsellor. There was need to establish through research whether these collaborative team services exist at City Primary School. This study sought to fill this gap.
2.7 Summary of Reviewed Literature

The reviewed literature established that there were very few studies on Inclusive Education for Children with Autism in developing countries. Those that exist are from developed countries where autism has been given a lot of coverage and special needs education has been on the forefront. In developing countries such as Kenya, this information is missing and this study hoped to fill the gap. There is also the belief that children with autism are mentally retarded and have limited educable capacity. This study has negated the view that children with autism ought to learn in special schools under segregated system of education. The reviewed literature on policies governing inclusive education reveals that, international agreements signed over the last fifteen years promote inclusive education. To show commitment to these international agreements, Kenya enacted the Children Act 2001 (GoK, 2001) which emphasizes that every child has a fundamental right to education and must be given the opportunity to achieve and maintain an acceptable level of learning and The National Special Needs Education Policy Framework (MoE, 2009), which advocates for provision of education for children with special needs through inclusive education. With all this effort and advocacy, it is important to find out whether children with autism have been offered equal educational opportunities without discrimination in Kenya and especially at City Primary School, Nairobi North District, Nairobi Province, Kenya.
CHAPTER THREE
RESEARCH METHODOLOGY

3.0 Introduction
This chapter explains the methods that were used to carry out this study. It focused on Research design, location of the study, target population, sampling techniques, sample size, research instruments, piloting, data collection methods, data analysis, logistics and ethical considerations.

3.1 Research Design
The research design which was used in this study was a case study approach. A case study approach involves describing the situation under study as it is by bringing out all the details in totality. It also allows for an intensive or in-depth investigation of the problem at hand and brings out a deeper understanding of the situation (Kombo & Tromp 2006). Hence the case study design involved a close scrutiny of the challenges that are experienced in the implementation of inclusive education by both the teaching and non-teaching staff at City Primary School. The use of case study approach entailed enabled the researcher using questionnaires, interview schedules, focussed group discussions and observation schedules to give descriptive accounts necessary for qualitative research.

3.1.1 Research Variables
According to Mugenda and Mugenda (2003), a variable is a measurable characteristic that assumes different values among the subjects and, therefore, a logical way of expressing a particular attribute in a subject. The dependent variable was inclusive
education, while independent variables constituted the child with autism, collaboration, environmental adaptation and curricular modification, attitudinal and social support.

3.2 Location of the Study
The study was carried out at City Primary School in Nairobi Province, in Kenya. The school is situated in Nairobi North District, Starehe Division, Juja Road Zone in Ngara West Ward. City Primary School is a Public City Council School under City Education Department and the first public school to open its doors to children with autism when autism condition was identified and classified as a separate category of disability by the Ministry of Education in 2003. The school has a high enrolment of seventy children with autism and it is also practising inclusive education.

3.3 Target Population
The target population for this study comprised seventy-five respondents who included one head-teacher, four heads of departments, ten special education teachers, twenty regular teachers, five therapists, thirty teacher’s aids, and four Ministry of Education (MoE) officials who were selected because they were directly involved in school administration, teaching, rehabilitation, welfare, curriculum and policy-making.

3.4 Sampling Techniques and Sample Size
City Primary school was purposively selected because it is the first school to practise implement inclusive education for children with autism in Kenya. Purposive sampling is often used when working with very small samples such as the one in this
study and when one wishes to select cases that are particularly informative (Neuman, 2000). In this case, the head teacher, heads of departments, special education teachers, regular teachers, the occupational therapist, teachers’ aides and Ministry of education officials were purposively sample.

3.4.1 Sample Size

The study sample comprised fifty (50) respondents who were purposively sampled from the entire population of seventy five (75) respondents. The school staff as well as the Ministry of Education officials participated in the study. One (1) head-teacher, four (4) heads of departments, eight (8) special education teachers, and twelve (12) regular class teachers, fifteen (15) teacher’s aides who directly assisted special education teachers in classroom teaching, six (6) occupational therapists, and four (4) Ministry of Education officials from the Department of Special Needs Education participated in the study. Table 3.1 below shows the sample composition.

Table 3.1: Sample composition

<table>
<thead>
<tr>
<th>NO</th>
<th>Position/Function</th>
<th>persons employed</th>
<th>female</th>
<th>male</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Head Teacher</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Head of departments</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Regular teachers</td>
<td>12</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Special education teachers</td>
<td>8</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>Teacher’s aides</td>
<td>15</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Occupational therapists</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>Ministry of Education officials</td>
<td>4</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>50</strong></td>
<td><strong>36</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

3.5 Research Instruments

The data collection instruments were researcher made and included questionnaires for special education teachers, non-special education teachers, and teacher’s aides, while semi-structured interview schedules were developed for the headteacher, heads of departments and Ministry of education officers. Focus group discussion (FGDs) schedules were developed for the occupational therapists and observation schedules, on resources, environmental sanitation, recreation facilities and school activities were also developed.

3.5.1 Questionnaires

The questionnaires were administered to the special education teachers, regular teachers and teacher’s aides. A questionnaire was selected as a research instrument because it ensures confidentiality and it is time-saving. The questionnaires had both closed and open-ended questions. It sought information on the teachers’ bio data, their teaching responsibilities, the curriculum, their role and opinions on implementation of inclusive education (See appendix A and F).

3.5.2 Interview Schedules

Interviews were conducted and guided by an interview schedule. This method was preferred because it enhanced questions to countercheck information provided through the questionnaires and also to obtain extra information on challenges facing teachers in inclusive education for children with autism at City Primary School. An interview schedule is an appropriate instrument because it is possible to obtain data required to meet specific objectives of the study (Mugenda & Mugenda 2003). Three
schedules were developed; face-to-face interview for head teacher, heads of departments and Ministry of Education Officials were held. The other was a focus group discussion schedule for occupational therapists (See appendix B, C, D& E).

3.5.3 Observation Schedule

Under the observation method, the information was sought through investigation without consulting the respondents (Kothari, 2008). Observation was chosen because, it eliminates subjective bias. Second, the information obtained under this method relates to what is currently happening. Third, this method is independent of respondents’ willingness to respond and as such is relatively less demanding of active cooperation on the part of respondents as happens as is the case in the interview or the questionnaire method. The researcher used participant observation approach. This enabled the researcher to record information on school environment and facilities and to verify the information in the context of questionnaires and interviews (See appendix G).

3.6 Pilot Study

A pilot study was done before the actual study began. Each research tools underwent a pilot process. The questionnaires and interview schedules were pre-tested at Buruburu 1 Primary School in Nairobi Province. The researcher visited the school and briefed the respondents on the intended data collection in their school. The sample that was used in the pilot study was believed to have the same characteristics as the one that was used in the real study. Piloting provided a good opportunity for the researcher to identify any weakness in the instruments and to find out if the
anticipated data analysis techniques were appropriate. After piloting, the researcher modified the instruments accordingly before conducting the main study. According to Hartley (1999), the need to conduct the pilot study was motivated by the following reasons:

i) To determine the extent to which the instrument provided the anticipated data.

ii) To find out any items in the research instrument that was unclear to the respondents.

iii) To determine validity and reliability of the data gathering instruments.

3.6.1 Validity

Validity is the degree to which an instrument measures what it is supposed to measure (Kothari, 2008). Validity is an non-statistical method used in validating the content employed in research tools such as questionnaires and structured interviews (Orodho 2004). Therefore, for the purpose of this study, validity of the research tools which were questionnaires and interview schedules was determined by comparing results and comments from two special education specialist at Kenyatta University Special Education Department. Their comments, observations and recommendations were incorporated in the final questionnaire.

3.6.2 Reliability

Reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials (Orodho, 2004). The study used test-retest method to ensure reliability. This method of assessing reliability of data involves
administering the same instrument to the same group twice (Mugenda & Mugenda 2003). The developed questionnaires were administered to a few identical subjects who did not participate in the real study, but not from the same school. The questionnaires were scored manually. The same questionnaires were administered to the same subjects under similar conditions after two weeks. The scores obtained in the first and the second tests were correlated to establish the extent to which the content of the questionnaires was consistent in eliciting the same responses every time the instrument was administered. After correlation, ambiguous questions were removed and some moderations and introduction of new items was done.

3.7 Data Collection Technique

The first step in data collection was to seek audience with head teachers, occupational therapists, and Ministry of Education officials and briefed them about the study. The instruments were then distributed to the respondents to fill and return after a week. Face-to-face interviews were held with the head-teacher, and Heads of departments of City Primary School at times convenient to them by prior. Observation schedules were conducted by the researcher to check school admission trends since 2003, an observation checklist on classroom learning environment, classroom instruction, school environment, social amenities and recreational facilities was used to verify the information in the context of questionnaire and interview.

3.8 Data Analysis

The data were edited and coded according to themes which emanated from the research objectives and questions. Qualitative data was derived from open-ended
questions in the questionnaires while the quantitative data was derived from closed-ended questions. The coded data was analyzed using both qualitative and quantitative techniques. The quantitative data were analyzed and presented using descriptive statistics such as frequency distribution, tables and percentages and also in narrative form. Qualitative data was presented in narrative form.

3.9 Logistic and Ethical Considerations

The researcher sought clearance from the university. She then obtained a permit from the Ministry of Education Science Technology to be able to collect data in the targeted School. The researcher explained to the respondents the purpose of the study and requested their willingness to participate in it. The subjects were assured of confidential.

3.10 Concluding Remarks

This chapter dealt with the description of the strategies and procedures followed in the study. The chapter has discussed research design, target population, research instruments, piloting, data collection and analysis procedure.
CHAPTER FOUR
DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction

This chapter presents the data findings on the implementation of inclusive education at City Primary School. Data is presented based on the five objectives of the study. Respondents’ bio-data and responses are analyzed using both quantitative and qualitative methods. The findings are presented in tables, pie charts and narrative.

Figure 4.1 Respondents’ Bio-data

![Gender distribution of the teacher respondents in school. Source: Researcher 2010](image)

Figure 4.1 above shows the gender distribution of the respondents. The results of the study revealed that, 70.0% of the sampled teachers were females while 30.0% males. Although the study found that 70% of the teachers were females, the overall senior teachers and the head-teacher were males. The results of the study also revealed that, 86.7% of teacher’s aides were female, while 13.3% were male. The study also
observed that 57% of the occupational therapists were males while 43% were females. Seventy five percent (75%) of the MoE interviewed were male and only 25% were females.

**Table 4.1: The Age, Job Groups, Education level and Experience of Respondents**

<table>
<thead>
<tr>
<th>Job Group Experience and Education</th>
<th>Age of teachers and teacher’s aides (TA)</th>
<th>Teachers F (%</th>
<th>T/A (F) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20 – 30</td>
<td>1 (5)</td>
<td>8 (53.3)</td>
</tr>
<tr>
<td></td>
<td>31 – 40</td>
<td>9 (45)</td>
<td>6 (40%)</td>
</tr>
<tr>
<td></td>
<td>41 – 45</td>
<td>6 (30)</td>
<td>1 (6.7%)</td>
</tr>
<tr>
<td></td>
<td>46 – 50</td>
<td>2 (10)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>51 – 55</td>
<td>2 (10)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>20 (100)</td>
<td>15 (100)</td>
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<table>
<thead>
<tr>
<th>Job Group of teachers Education level of teachers</th>
<th>G</th>
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<th>Contract</th>
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</thead>
<tbody>
<tr>
<td>Job Group of teachers Education level of teachers</td>
<td>J</td>
<td>5 (25)</td>
<td>Contract</td>
</tr>
<tr>
<td>Job Group of teachers Education level of teachers</td>
<td>K</td>
<td>2 (10)</td>
<td>Contract</td>
</tr>
<tr>
<td>Job Group of teachers Education level of teachers</td>
<td>L</td>
<td>5 (25)</td>
<td>Contract</td>
</tr>
<tr>
<td>Job Group of teachers Education level of teachers</td>
<td>M</td>
<td>2 (10)</td>
<td>Contract</td>
</tr>
<tr>
<td>Job Group of teachers Education level of teachers</td>
<td>N/Committal</td>
<td>5 (25)</td>
<td>Contract</td>
</tr>
<tr>
<td>Job Group of teachers Education level of teachers</td>
<td>Total</td>
<td>20 (100)</td>
<td>15 (100)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Education level of teachers</td>
<td>University</td>
<td>8 (40)</td>
<td></td>
</tr>
<tr>
<td>Education level of teachers</td>
<td>Tertiary</td>
<td>8 (40)</td>
<td>5 (33.3)</td>
</tr>
<tr>
<td>Education level of teachers</td>
<td>Secondary</td>
<td>3 (15)</td>
<td>5 (33.3)</td>
</tr>
<tr>
<td>Education level of teachers</td>
<td>Primary</td>
<td>-</td>
<td>5 (33.3)</td>
</tr>
<tr>
<td>Education level of teachers</td>
<td>Total</td>
<td>20 (100)</td>
<td>15 (100)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year joined teaching for teachers</th>
<th>Before 1980</th>
<th>1 (5)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Year joined teaching for teachers</td>
<td>1981-1990</td>
<td>7 (35)</td>
<td></td>
</tr>
<tr>
<td>Year joined teaching for teachers</td>
<td>1991 – 2000</td>
<td>8 (40)</td>
<td></td>
</tr>
<tr>
<td>Year joined teaching for teachers</td>
<td>2001 – date</td>
<td>2 (10)</td>
<td></td>
</tr>
<tr>
<td>Year joined teaching for teachers</td>
<td>Non-committal</td>
<td>2 (10)</td>
<td></td>
</tr>
<tr>
<td>Year joined teaching for teachers</td>
<td>Total</td>
<td>20 (100)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher 2010
Table 4.1 above presents the data on the age, job group, levels of education and experience in teaching. The data indicates that, 5% of the teachers were in the age group of 20-30 years; 45% were in group of 31 – 40 years, 30% age group 41 – 45 years; 10% age group 46-50 years; and another 10% age group 51-55 years. The data also revealed that the teacher’s aides were between ages 20-45 years; 55.3% were between ages 20-30 years; 40% were between 31-40; while only 6.7% were between ages 41-50. The study also established that, the teacher’s aides were employed on a contract basis. This could probably explain why only 6.7% were in the age bracket of 41-50. At age forty and above one needs job security and employment terms that are permanent and pensionable. Failure to achieve a permanent job poses a challenge that could explain why only 13.3% males were employed as teacher’s aides.

The results revealed that the teacher had attained various job groups 20% accounted for Job group M, 25% job group J; 25% job L; and 25% were non-committal on their job groups, while 10% had attained job k and only 5% were in job group G. The results also indicated that the teachers at hand had attained various levels of education. The highest level, being postgraduate 5%, 40% had university education; another 40% tertiary education; while 15% had secondary education. The Majority of the teachers (80%) had a teaching experience of more than 10 years while 10% had experience of 10 years and below; and another 10% were non-committal on their experience in teaching.
4.2 Education Policies Guidelines on Inclusive Education in Kenya

The first objective of the study was to establish the existence of specific policies guideline on inclusive education. The results revealed that the officers did not share the same views as far as policy on inclusive education was concerned. Seventy five percent (75%) said there was a policy on inclusive education; while 25% others alleged there was none. However, the launch of The National Special Needs Education Policy Framework on 10\textsuperscript{th}, March 2010 whose Vision is to have “A society in which all persons regardless of their disability and special needs achieve education to realize their full potential.” affirmed that there is a policy on SNE in Kenya. The National Special Needs Education Policy (MoE, 2009), has eleven objectives, three of which focus on promotion and facilitation of inclusion of children with special needs in formal and non-formal education and training. Promotion of barrier-free environment for learners with special needs in all learning institutions, provision and promotion of the use of specialized facilities, services, assistive devices and technology, equipment and teaching learning materials.

The policy also has guiding principles that address inclusion. The Guiding Principle 2 advocates for, equal access to all educational institutions by learners with special needs and disability. Guiding Principle 3: Equitable access to services that meet the needs of individual learners with special needs and disability within diverse learning environments. Guiding Principle 4: Non-discrimination in enrolment and retention of learners with special needs and disabilities in any institution of learning. Guiding Principle 5: Barrier free transition of learners with special needs and disability through the various education levels in accordance with their abilities. Guiding

The policy provision has 15 target areas of which Inclusive Education has been discussed. The policy provisions acknowledges the government's emphasis of inclusive education through regular schools and asserts that inclusive education approach will increase access to education for children with special needs. However, one of the officers said:

“We have had what we call the policy guidelines on how children can be included, but we find that, these guidelines have got their own shortcomings.” The officer added that, “We expect schools to include children in the classrooms yet, the teachers do not understand the concept of inclusive education.” The officer cited Policy Paper No 1 of 2005 document, and explained, “Everything that we do now as a Ministry is based on The Sessional Paper No. 1 of 2005 which has now been magnified through the Kenya Education Sector Support Programme 2005-2010 (KESSP) document (GoK, 2005). Therefore, the KESSP document is like a Bible of the Ministry of Education. If you look at it now, there is a section in it on Special Needs Education in Kenya so that is like our operational policy at the moment and within it we find that funds are being disbursed to ordinary schools for the purpose of restructuring physical facilities so that they can open doors to learners with Special Needs in Education”.

4.3 Environmental Adaptation, Facilities and Curricular Modification

The study observed that the school had twenty-six classes, two equipped occupational therapy rooms, two dining halls, three kitchens, one assessment room and three workshops. The observation schedules revealed the following findings: that of twenty-six classes, 100% had good ventilation, lighting, classroom size and adequate furniture; four classes (15.4%) had rough and untidy floors; eight classes (30.8%) had floors that had PVC tiles and were very clean. These classes were the special segregated units for children with autism while fourteen classes 53.8% had smooth and tidy floors. Learning centres were available in fifteen classes 57.8%, which were
mainly the regular classes; while eleven classes 42.3% were without learning centres, eight of the eleven classes are the special unit classes for children with autism and three of the classes are for children that were with mentally handicapped. There is also modification of the environment through construction of ramps to enhance mobility: two modified toilets and one bathroom was available for children with special needs. Some of the classrooms are partitioned to small sizes and walls painted with child-friendly colours. These findings concur with UNESCO (2004a, 2001) which point outs that learners have diverse needs and inaccessible environment within and even outside the school may contribute in excluding them from learning institutions. To alleviate this problem then, the environment should be adopted to suite the diverse learners needs. This involves organizing the classroom and the school compound. Cheshire (2004) adds that physical adaptations in a school may include building ramps, constructing accessible toilets, enlarging classroom windows and painting walls to improving lighting and levelling grounds.

The study also observed school environment with regard to waste management, dustbins, refuse disposal pits, drainage and terrain, paths, ramps and security, sources of water, lighting and recreational facilities. The waste management mechanism was in place as there were dust bins in the classes and along the corridors in strategic places, refuse disposal pits and drainages was in use. The school terrain was flat; paths were rough without pavement, though the corridors were wide, clean and smooth. It was also noted that although there were ramps in the school, there existed several environmental barriers, such as steep staircases, rough pathways and lack of grip rails for learners with physical handicaps. There was evidence of safety
awareness because the school has a gate, Fence, fire extinguisher in the autism unit and presence of security personnel. The main source of water was pipe City Council water, with electricity as the main source of power. The means of transport to the school was mainly private or public. The school has access to the following communication sources: cell phones, landline, through not functional: internet and websites which are out of the school compound but in the close by neighborhoods. The nearest health facilities to the school are three hospitals nearby: Avenue, Aga Khan and Guru Nanak. The school has the following recreational facilities, soccer pitch, volleyball pitch, net ball pitch, athletic track, and a swimming pool.

The study also observed classroom instruction. The following areas were focused on: Activities of Daily Living (ADL), and Curriculum used, vocational instruction and Individualized Education Programme. All the twenty-six classes were observed: 46.2% of the classes had ADL on the time table and practiced; while fourteen 53.8% did not have ADL but had life-skills time tabled and practised life skills are similar to ADL in content and delivery. The curriculum observation revealed that ten classes (38.4%) used the normal curriculum; while eight classes 30.8% used an Adapted curriculum. A total of 69.2% of the classes used a curriculum developed by Kenya Institute of Education (KIE). These findings concur with the finding of UNESCO (2003), which points out that in any education system; the curriculum is one of the major obstacles or tools to facilitate the development of inclusion. The National Special Needs Education Policy MoE (2009) adds that the curriculum is vital for inclusive education. The curriculum should be adequately responsive to different categories of children with special needs and disability. The policy further explains
that the curriculum should be flexible in terms of time, teaching and learning resources, methodology, mode of access presentation and content. However, eight classes 30.8%, which were from autism unit, did not have any curriculum available. This probably means that the Kenya institute of Education (KIE) had not developed any curriculum for teaching children with autism or simply that the teachers had not made an effort to get a copy of the curriculum from K.I.E which is only one kilometre away from the school.

Table 4.2: Teaching Children with Autism at City Primary School

<table>
<thead>
<tr>
<th>When the teaching of CWA started</th>
<th>Teachers Frequency</th>
<th>%</th>
<th>Teacher’s aides Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before 2002</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2002</td>
<td>1</td>
<td>5%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2003</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>6.7%</td>
</tr>
<tr>
<td>2004</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>13.35%</td>
</tr>
<tr>
<td>2005</td>
<td>1</td>
<td>5%</td>
<td>2</td>
<td>13.35%</td>
</tr>
<tr>
<td>2006</td>
<td>2</td>
<td>10%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2007</td>
<td>4</td>
<td>20%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2008</td>
<td>3</td>
<td>15%</td>
<td>3</td>
<td>20.0%</td>
</tr>
<tr>
<td>After 2008</td>
<td>1</td>
<td>10%</td>
<td>3</td>
<td>20.0%</td>
</tr>
<tr>
<td>Non-committal</td>
<td>7</td>
<td>35%</td>
<td>4</td>
<td>26.7%</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100%</td>
<td>15</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Researcher 2010
Table 4.2 above shows that teaching children with autism did not start earlier than 2002 in City Primary School. One teacher (5.0%) started teaching children with autism in 2002, one teacher (5.0%) started in 2005, two teachers (10.0%) started in 2006, four teachers (20%) started in 2007, and three teachers (15%) started in 2008. It was noted that seven teachers were non-committal and did not indicate when they started teaching children with autism. The joining of the teaching profession had no significant relationship to the time when the teachers started teaching children with autism ($r = 0.017$, $P > 0.05$). The findings indicate that although teachers in this study joined the profession as early as 1982 or before, these teachers were not teaching children with autism.

The study also found that, 6.7% ($n = 1$) teacher’s aides, respondent had worked for children with autism since 2003, 13.35% ($n = 2$) had worked for children with autism since 2004, 13.3% ($n = 2$) had worked since 2005, 20.0% ($n = 3$) had worked since 2008 and a similar number (3) had worked since the year 2009. Only 26.7% ($n = 4$) of the respondents declined to indicate how long they had worked with autistic children. This shows that the teacher’s aides had worked longer at City Primary School than the special education teachers. This could have been either attributed to frequent transfers of teachers from the City Education Department or high teacher turnover due to personal reasons.
4.3.2 Curriculum Modification

Table 4.3: Type of Curriculum Used by the Teacher Respondents

<table>
<thead>
<tr>
<th>Type of curriculum</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal curriculum</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>Specialized</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Adapted</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>None committal</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Researcher 2010

Table 4.3 shows data analysis from the questionnaires, which indicated that, 10 teachers (50%), had a written curriculum, three teachers (15%) used specialized curriculum, five teachers (25%) used Adapted curriculum, while two teachers (10%) were non-committal.

Table 4.4: Time Taken to Prepare a Child with Autism who comes Direct from Home

<table>
<thead>
<tr>
<th>Time</th>
<th>Teachers Frequency</th>
<th>%</th>
<th>Teacher’s aides Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 2 years</td>
<td>4</td>
<td>20%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2-4 years</td>
<td>5</td>
<td>25%</td>
<td>7</td>
<td>46.7%</td>
</tr>
<tr>
<td>4-6 years</td>
<td>6</td>
<td>30%</td>
<td>3</td>
<td>20%</td>
</tr>
<tr>
<td>Above 6 years</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>26.7%</td>
</tr>
<tr>
<td>Non-committal</td>
<td>5</td>
<td>25%</td>
<td>1</td>
<td>6.7%</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100%</td>
<td>15</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Researcher 2010

The results in Table 4.4 above show that the views of the respondents varied on the time to take to prepare a child with autism coming directly from home for inclusive education. 30% of the teachers felt that it would take 4-6 years, 25% of the teachers
indicated 2-4 year. Conversely 25% were non-committal, while 20% noted it take two years and below. The results also revealed that 47.7% teacher’s aides indicated that it takes 2-years, whereas 20.0% suggested it would take 4-6 and 26.7% pointed out that, it would take above six years, while 6.7% of the teacher’s aides were non-committal. Whilst the interview schedules from the heads of the departments revealed that it take about five years to prepare a child with autism to join inclusive class, they attributed this to the nature of the autism condition. They vindicated that the teachers needed time to prepare the child in such aspects as self-care skills and communication.

They noted that children with autism experience challenges in the certain areas;

“Children with autism experience communication difficulties, behavior problems, social deficits and sensory problems. This requires speech therapy, behaviour modification, social skills training and sensory integration, which takes a lot of time to realize any meaningful progress to become functional educationally for inclusion.”

Table 4.5: Average Time Spent per Day with the Children

<table>
<thead>
<tr>
<th>Time spent with children</th>
<th>Frequency (no of teachers)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>2</td>
<td>10.0</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>10.0</td>
</tr>
<tr>
<td>8</td>
<td>13</td>
<td>65.0</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>5.0</td>
</tr>
<tr>
<td>None-committal</td>
<td>2</td>
<td>10.0</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Researcher 2010
4.3.3 Average time spent per day with children one on one basis

Table 4.5 above shows the summary of time spent by the teachers with children. The majority of the teachers (65%) spent eight hours with the children, 10% seven hours, 10% six hours, and another 10% were non-committal. This would probably mean that most of the teachers started work at eight in the morning and left at five in the evening.

4.3.3 Number of ChildrenHandled by Teachers per Day

**Figure 4.2: Mean number of children taught by the teachers per day**

Source: Researcher: 2010

Figure 4.2 above indicated that Special education teachers at City Primary School teach 14 children per day, while regular teachers handle 49 children.
Teachers’ Role in Teaching Children with Autism

Figure 4.3: Teachers’ Role in Implementing the Curriculum

NB: Five teachers did not respond.

Source: Researcher 2010

A majority regular teacher’s 71.4% and 50% special education teacher’s took part in general classroom teaching. 14.3% of regular teachers and 12.5% of special education teachers is to implement integration in the school, 25% of special education teacher taught prevocational skills, while no regular teacher taught pre-vocational skills.

Similarly no special education teacher was involved in counselling.

4.4 Support System that have been put in place for Children with Autism

The third objective of this study was to establish support systems that were in place at City Primary School. To establish this objective the respondents were asked about the
reception of inclusive education and support services available for children with autism. The results from the study revealed that all the teacher respondents (100%) indicated that City Primary School was receptive to inclusive education. This they attributed to the fact that, children with various disabilities, mental handicapped, autism, low vision, physically handicapped, cerebral palsy, Down’s syndrome and emotional and behaviour disorders were enrolled in the school. This findings concur with The Universal Declaration of Human Right of 1948, which advocates for Non-discrimination of a child on the basis of race, colour, religion disability or other status [UNESCO (2001; 2003), and The Children’s Act (2001)] which emphasizes that every child has a fundamental right to education and must be given that opportunity to achieve and maintain an acceptable level of learning (GoK 2001). The respondents also attributed receptiveness to inclusive education to the fact that children who show progress are promoted to regular classes according to their abilities. The respondents further pointed out that some of the children with autism, mental handicap, and low vision and the physically handicapped were learning together with the regular students.

However, an overwhelming majority (82%) of the heads of departments interviewed stated that City Primary School is receptive to inclusive education for children with autism. While 18% stated the school was not receptive. They attributed lack of receptiveness to the fact that it was hectic and involving for teachers to teach in an inclusion class because children with special needs have diverse needs and it would not be easy to meet them individually. Furthermore teachers did not expect much from children with autism because they believed that children with special needs are
underachievers and require to be placed in special units and not in regular classes. These findings concur with the findings of Huang and Wheeler (2007) carried out in China, which revealed reluctance from general education teachers in including children with autism in their classroom because of their lack of knowledge regarding such students’ characteristics and learning styles.

The focus group discussions from the occupational therapists revealed that children with special needs in City Primary School are handled well by professionals because there is a high level of awareness in the school. However, some of the teaching, non-teaching staff and regular children still refer to children with special needs as foolish, “kichwa maji,” a term used to mean watery heads, “Yule anarukaruka” Jumpy ones or “wale watoto wakupiga makofi” those children who always clap. These findings concur with Mcleskey and Waldron (2002) whose findings revealed that one negative attitude towards inclusion was that the students in the classroom with disabilities noticed the differences between themselves and their peers, and rejected them by labelling and calling them names. Mushoriwa (2001) advises that before implementation of special education programme for learners with disabilities within regular schools, it is important to determine the attitude of the educators and administrators towards children with disability because attitudes are the greatest barriers or the greatest assets to the development of inclusive education. Attitudes include desires, convictions, feelings, opinions, beliefs, hopes, judgments and sentiments. The study also found that City Primary School had various personnel who offered different support services to children. They included special education teachers who offer educational support services through individualized Education
Programme. and remedial teaching, teacher’s aides who support children in activities of daily living, and while occupational therapists offer sensory integration therapy and behaviour modification therapy, and nutritionists who offer diet intervention. Other support services in the school included teachers-to-teachers support, parents becoming partners in the education of their children, and the community supporting the school. This finding concurs with McLeskey and Waldron (2002) findings which indicate that the most crucial factor behind positive teacher attitudes towards inclusion is that there is a support system in place. Examples of support systems are special education and general education collaboration and consultation, team teaching; and ongoing in-services or conference opportunities.

4.5 Collaborative Team Commitment among City Primary School Personnel

The fourth objective of this study was to identify collaborative team commitment among personnel in service provision for children with autism. This study found that, the school has various personnel who worked collaboratively in service provision to the children with autism. The personnel included special education teachers who offer educational services; teacher’s aides who support children in daily activities of living; Occupational therapists who offer sensory integration therapy and behaviour modification therapy; nutritionists who offer diet intervention; other support services including Paralympics and hydrotherapy. In City Primary School, the children were discussed mostly in the form of multi-disciplinary meetings involving the class teacher, administrator from Autism Society of Kenya, occupational therapists teacher’s aides and the remedial art instructor. The parents were also given the
opportunity to contact the school on their own initiative to find out the progress of their children.

The results further explained that parents were involved in planning, decision-making and implementation of Individualized Education Programme (IEP), counselling, nutrition, occupational therapy and sports. This finding concurs with Individuals with Disability Act (IDEA 2004) which mandates collaborative decision-making among parents and professionals and Kalyanpur and Kirtic (2000) who emphasized that parents participate as experts in their own right. They bring to the table the holistic concept of the child across time and context because; they know the child better right from home. The study also established that there was school-community collaboration. This was eminent when there is an autism awareness walk, the parents, community and corporate sectors such as bankers, media groups, mobile telephone service providers, NGO among others participate in the events. The community is involved in putting up facilities such as workshops, toilets and buying therapy equipment.

4.6 Challenges Faced by Teachers at City Primary School

The last objective of this study was to find out what challenges are experienced by teachers in the implementation of inclusive education for children with autism at City Primary School. The results of the studies revealed that the major themes that emerged on the challenges included: the concept of inclusive education, curriculum used, nature of autism condition, training of teachers, negative attitudes form peers, lack of enough education resources, high expectation of parents and time allocated to
the learners per lesson. Some of these challenges are similar to findings of Huang and Wheeler (2007) which they carried out in China, and a study carried out in South Africa by Bothma, Gravett and Swart (2000) who came up with the following findings:

(i) The concept of inclusive education has not been well-understood thus posing challenges and opposition because some of the teachers are not trained in SNE and are reluctant to admit/implement inclusive education for children with autism. The same teachers also fear that these children will bring down the academic standards of the school.

(ii) The curriculum that is used for teaching is for average learners so the teachers find it difficult in adapt it to suit all the whole range of the learners with autism spectrum disorder as they experience communication, imagination and social impairments which are critical in learning yet there are no teaching learning materials developed by the Kenya Institute of Education.

(iii) Children with autism also experience problems of mood swings, tantrums and ritualistic behaviours which interfere with teaching learning process and there are times it becomes impossible to teach under such circumstances. Some children with autism have a short attention span. This can drag the whole class behind while others learn through routine schedule which is hard to acquire due to lack of skills competence.

(iv) Lack of clear policy guidelines on implementation of inclusive education was seen as a challenge as most of the teachers used their college notes to implement inclusive education.
(v) The attitude of regular teachers towards pupils with autism and the use of rigid teaching approaches that did not benefit learners with special needs were factors that posed a challenge to implementation of inclusive education.

(vi) Negative attitudes from the peers (regular learners) who looked down upon C.W.A. And did not understand them and their behaviours which has resulted in name callings using terms such as “kichwa maji, meaning watery heads. “Yule anarukaruka”, meaning Jumpy ones. This finding concurs with McLeskey and Waldon (2002) who noted that students in the classroom without disabilities noticed the differences between them and their peers and rejected them by labelling and/or calling them names.

(vii) Parents were not flexible to changes and they were in denial about their children’s condition and therefore failed to accept their children’s learning difficulties. Some parents had a negative attitude on inclusive education they proffered their children to remain in special unit for autism.

The Ministry of Education officials (MoE) attributed the following challenges as challenges facing teachers in the implementation of inclusive education; The major challenges are quoted below:

“Both MoE officials and teachers do not understand the concept of Inclusive Education, autism condition and lack of guidelines to support inclusive education at school level.”

“Assessment teachers posted to Educational Assessment and Resource Centres (EARC) were either not well trained in assessment or lacked the necessary facilities to assess the children with special needs, leading to wrong placement of children with autism into the units of the Mentally Handicap.”

“Although Kenyatta University and the Kenya Institute of Special Education are training special needs education teachers, The Teachers Service
Commission posts them to schools where their services are not needed.”

“Special Needs Education Teachers do not have an established promotional structure or scheme of service and this has led to many of them for other forms of employment after training.”

“Examination systems are limiting and rigid, thus denying the children with disability the opportunity to access equal and quality education their peers.”

4.6.1 Teachers’ Suggestions on How CWA can to be taught in Inclusive Education

The teachers suggested that there was need to develop an inclusive curriculum that caters for all children and provide appropriate instructional materials to be used by teachers. The teachers also proposed the need for early identification of autism disorder, early placement and intervention to minimize the effects of autism condition.

The teachers further explained that there was need to sensitize children without disability on inclusive education to minimize peer rejection in the classroom. While the teacher’s aides noted that children with autism can be placed in inclusive settings as long as the following measures are put in place: The numbers of children in inclusive classroom should not exceed 20 – 30 children; modification of classes so that they do not get hypersensitive; the children should be given continuous support both in school and home. The Ministry of Education officials, parents, teachers and all stakeholders are sensitized on Inclusive Education through workshops and advocacy. All barriers to learning should be removed and be replaced with strategies that are effective to inclusive education. A school policy that impresses inclusive education and provision of relevant teaching/ learning materials should be adopted.
Teachers need to train in curriculum development, behaviour medication techniques for CWA, assessment and evaluation of CWA in examinations.

4.6.2 Benefits of Teaching Children with Autism in the Mainstream Classes

The Heads of Department were asked the benefits of teaching children with autism in an inclusive class. The respondents noted that, inclusion of children with Autism into the regular classes has many benefits. These include; One the children with autism will have improved social skills and speech as they interact with other children. Two the regular teachers will gain skills on handling learners with special needs. Three learners without disability gain by being aware of the learners with autism, learning how to interact with them and associating with them.

4.7 Chapter Summary

This chapter presented data analysis, interpretation and discussion of the results. Data was collected from City Primary School and MoE officials from Special Needs Education department. The collected data was categorize, ordered, coded, and then tabulated according to the already identified themes developed from the objectives of the study. The data was analyzed through the use of tables of frequency distributions and percentages (%). The results indicated that there were specific policy guidelines on inclusive education in Kenya, City Primary School has environmental adaptation and classroom modification to suite diverse needs of the learners in the school, lack of the curriculum in the special Units for CWA was a hindrance to the teaching of children with autism, lastly the school collaborated with the homes and the community of Children with Autism.
CHAPTER FIVE
SUMMARY, CONCLUSIONS, RECOMMENDATION AND SUGGESTION
FOR FURTHER RESEARCH

5.0 Introduction

This chapter presents the summary, conclusions, recommendation of the study. It also contains suggestions for further researches in the area covered by the study.

5.1 Summary of the Findings

This case study was carried out at City Primary School. The focus of the study was inclusive education for children with autism and challenges facing teachers at City Primary School in Nairobi Province. The study aimed at establishing the existing policy on inclusive education, environmental adaptations, facilities and curricular modification which were in place for inclusive education for children with autism; establish what support systems were in place; identify various collaborative team commitment among personnel in service provision; and find out the challenges faced by teachers in inclusive education for children with autism.

5.1.1 Existing Policies on Inclusive Education

The study revealed that there exists Special Needs Education Policy Framework which was launched in March 2010. The National SNE policy advocates for inclusive education for learners with special needs. The objectives of the policy are in line with concepts of inclusive education, which are, promotion of inclusive education for children with special needs in both formal and non-formal education and training and having a barrier free environment in all learning institutions. The National SNE
policy framework also promotes the guiding principles of inclusion, which are equal access to all educational institutions, equitable access to services that meet the needs of learners, non-discriminatory enrolment and retention of learners with special needs and disabilities. The National SNE policy framework also advocates for barrier free transition of learners with special needs and disability through the various education levels, and a learner-centred curriculum. Even though this policy exists, the findings of the study revealed the teachers at City Primary School were not aware of it.

5.1.2 Environmental Adaptation, Facilities, and Curricular Modification

According to the findings of the study, City Primary School had environmental adaptations and classroom modification to suite the diverse needs of the learners in the school. The findings of the study also revealed that all the twenty-six classrooms (100%) which were observed had good ventilation, lighting, classroom size and adequate furniture. The majority of the classes (88.6%) had modified floors, which were smooth and tidy, only 15.4% of the classes had rough and untidy floors. There was evidence of construction of ramps to enhance mobility, two toilets and one bathroom had been modified for children with special needs. There was also proper waste management and security in the school.

The curriculum observation also revealed that, ten classes (38.4%) used the normal curriculum, while eight classes 30.8% used Adapted curriculum. 69.2% of the classes used a curriculum developed by Kenya Institute of Education (KIE). While 30.8% of the classes were autism units, did not have any curriculum available. This could probably mean that the Kenya Institute of Education (KIE) had not developed
any curriculum for children with autism or simply that the teachers had not made an effort to get a copy from KIE. The environmental adaptations, facilities and curricular modification were indicators of a positive step towards in inclusive education. However, the lack of a curriculum in the special unit for CWA is a hindrance to teaching of children with autism and preparation for them to be included in the regular classes.

5.1.3 Support System

Research findings revealed that both teachers and non-teaching staff had a positive attitude towards children with disability. This was indicated through the enrollment of all children irrespective of their ability, race, religion, economic status and disability. The enrollment includes learners with autism, mental handicap, cerebral palsy, Down’s syndrome, physically handicapped, epilepsy, learning disability, speech disorders, and learners of African and Asian origin. The receptiveness to inclusive education was also attributed to support services in the school, which were offered by different personnel. They included special education teachers who offer educational support services through Individualized Education Programme and remedial teaching, teacher’s aides who support children in activities of daily living and while occupational therapists offer sensory integration therapy and behaviour modification therapy and nutritionists who offer diet intervention. Other support services in the school included, teachers-to-teachers support, parents becoming partners in the education of their children and the community supporting the school.
5.1.4 Collaborative Team Commitment in Services for Children with Autism

It was evident from the study findings that in City Primary School, the children were discussed mostly in multi-disciplinary meetings involving the special needs education teacher, class teacher, administrator from Autism Society of Kenya, occupational therapists, teacher’s aides and remedial art instructor. The parents were also given the opportunity to contact school on their own initiative to find out the progress of their children. The results further explained that parents were involved in planning, decision-making and implementation of Individualized Education Programme (IEP), counselling, nutrition, occupational therapy and sports. The findings also revealed that, there was also collaboration between the school and home, school and the community. School-home collaboration involved the school personnel, children with autism and their parents in assessment of the learning abilities of the child, educational placement of the child and daily follow-ups, through diaries. There was also collaboration in adapted sports in which competitions were held in the school. The parents, teachers, teacher’s aides, and occupational therapists participated in the sports, advocacy and awareness creation of autism condition.

5.1.5 Challenges Faced By Teachers at City Primary School

It was evident from the study findings that the teachers at City Primary School experienced challenges in implementation of inclusive education for children with autism. The challenges included, curriculum used, nature of autism condition, training of teachers, negative attitudes form peers, lack of enough educational resources, high expectation from parents and time allocated to the learners per lesson. Some of these challenges are similar to findings of Huang and Wheeler (2007), which
was carried out in China and another study carried out in South Africa by Bothma, Gravett and Swart (2000).

5.2 Implication of the Findings

The findings of the study reveal that CWA can learn in inclusive classrooms though there are a few challenges that the teachers experienced, which implies that there is need for some measures to be put place in order to alleviate the situation so that CWA can learn effectively with minimal hindrance. The following measures can be taken.

(i) There should be clear policy guidelines on implementation of inclusive education.

(ii) There is need to modify the curriculum in order to enhance the learning for CWA in inclusive classrooms.

(iii) The teachers should also be given in-service and other refresher courses so as to improve on their attitudinal and socio-psychological support systems in the school.

(iv) There is also need for teachers to be trained on how to work collaboratively with other professionals such occupational therapists, speech therapist and educational psychologists when developing IEP for CWA.

(v) The government should allocate enough funds to the special education sub-sector to be used in purchasing the necessary learning and therapy equipments, which are essential for CWA because of the nature of autism condition.

(vi) The Ministry of Education should work with other government department such as Ministry of Health to second occupational therapists, physiotherapists,
nutritionists, and speech therapists to work collaboratively with special needs education teachers.

5.3 Conclusion

The study concludes that children with autism can learn in an inclusive set up, however, there are challenges that teachers experience in the teaching of children with autism. The challenges include:

(i) Lack of clear policy guidelines on inclusive education.

(ii) The curriculum used to teach children with autism were those meant for normal regular classes and not adapted to suit the individual needs of all learners.

(iii) The support systems in place such as occupational therapy are expensive and most parents cannot afford them.

(iv) The administrative structure should be well-defined so that education for children with autism is not view as the private endeavor operating in a public institution.

(v) The nature of autism condition which interfered with effective learning in the classroom.

5.4 Recommendations

Based on the findings of the study, the following recommendations were made in order to ensure effective implementation of inclusive education for children with autism.
5.4.1 Policy Development

There is the need for clear government policy on inclusive education and the role of each teaching and non-teaching staff, parents, stakeholders and the community. Stakeholders need to work together. Guidelines need to be developed for all officers, to have a common approach to handling inclusive education. Once developed all the teachers and Ministry of Education officials need to be trained on the same, and each officer should have a copy for reference. The MoE officials should also go out and learn about Autism and inclusive education and carry out induction courses on Autism and I.E because they are the authority as far as SNE is concerned and give the support teachers needed. All officers should be knowledgeable on inclusive education because they cannot supervise what they do not know and they are the ones who should give professional advice to teachers who have the initiative. The development and training on policy issues need not to be an expensive exercise. The government could use its officers with the help of the NGO’s while training should take place at the government training institutes. There may also be need for the government to have an independent department within the Ministry to monitor the implementation of Inclusive Education.

Consultation, monitoring and evaluation of all activities geared towards Inclusive Education should be an ongoing process, with the view of achieving the best practice. Probably Kenya may want to borrow from other countries such as China, South Africa, and Uganda on how they have implemented Inclusive Education for children with autism. Where a child has mild disabilities, the policy should encourage teachers to place the child in an inclusive set up except for multiple severely handicapped
children who should remain in Special Schools or Units. The political aim of the
government needs to show good will in promoting Inclusive Education. This is
important for the message to be clear that all children have a right to access quality
education and should not be discriminated against the basis of disability.

5.4.2 Environmental, Facilities and Curricular Issues

There is a need to eliminate environmental barriers prior to implementation as much
as possible and have a plan to solve additional barriers that arise after the children
arrive at the school and establish a clear acceptance standard for the children with
special needs to be absorbed in general education schools. Plans for accommodation
and modifications of the curricula and assessment that are flexible to fit the abilities of
all children with special needs should be developed.

5.4.3 Support Systems

Programmes that offer support to families such as counselling, welfare programmes,
stress management and parental skills should be put in place. The family unit should
be strengthened as it is the environment where a child grows up. The study found out
that there is need to sensitize parents on benefits of inclusive education since the
family plays a major role in deciding whether their child will be placed in an inclusive
set up or a special unit or school. It is especially important for families to feel part of
the inclusive programmes. There is also a need to provide suitable opportunities for
all parties in the society to have a role as a part of the inclusive programme so that
they can support it with their diverse talents. School programmes should provide
suitable opportunities for interaction between children with special needs and other
children in different situation to develop relations between them, so that they can develop a clear perception about each other with indirect guidance. Teachers should also establish support groups for children with special needs to help them develop self-esteem through the promotion of programmes at the school to assist children with special needs with their academic, social and communication skills, before and during inclusion.

5.4.4 Collaborative Teamwork

There is a need for collaboration among all stakeholders. There is a need for the school and groups working on inclusion to build networks to assist each other in program development and evaluation through collaboration such as the international inclusive research.

5.4.5 Challenges Facing Teachers

The teachers can be helped to overcome challenges through seminars and workshops.

5.5 Suggestions for Further Research

The study has revealed that gaps still exist and there is need for further studies in the following areas.

(i) The influence of family background of a child with autism towards learning in an inclusive set up.

(ii) There is need to carry a similar study to investigate the attitudes of the parents on inclusive education for children with autism.
(iii) There is also the need to investigate the attitudes of regular learners without
disability towards inclusive education.

(iv) A research study needs to be carried out on criterion used by Teachers
    Service Commission, with regards to the deployment of Special Needs
    Education Teachers.

(iv) There is the need to examine factors that have made most special education
    teachers to opt for other forms of employment after training.

(vi) A research study needs to be carried out on transition of children with autism
    from separate special units and special schools to inclusive classes.

(vi) There is the need for research study to establish Diagnostic criteria used to
    identify children with autism and their educational placement.
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APPENDICES

APPENDIX A

QUESTIONNAIRE FOR REGULAR AND SPECIAL EDUCATION TEACHERS

1. What is your position in the school? Please tick. Special education teacher (  ) Regular teacher (  ) Teacher’s aide (  ) Others_________

2. Age…20-30 (  ) 31-40 (  ) 41-45 (  ) 46-50 (  ) 51-55 (  )

3. Female (  ) Male (  )

4. Job group……………………………………………………………………………………………………………………………….

5. Level of Education………………………………………………………………………………………………………………

6. Primary (  ) Secondary (  ) Tertiary (  ) University (  ) Postgraduate (  )

7. When did you join the teaching profession?

8. What is the number of children you teach per day?

9. How many hours do you spend the children per day?

10. What is your role in teaching children with autism?

   Prevocational (  ) Counselling /behaviour modification (  )

   General teaching (  ) Adapted physical education (  )

   Integration (  ) Inclusion (  )

   Others (  )_____________________________________________________________________________________

11. What type of curriculum do you use?

   Normal curriculum (  ) Adopted (  ) Adapted (  )

   Specialized (  ) Specialist Others ----------------------------------------

12. Do you have a written curriculum? Yes (  ) No (  )

13. In your own view what is inclusion?________________________________________
14. If you were to be trained on new aspects on inclusive education, what three areas of knowledge would you like to learn? List them in the order of priority to you.

……………………………………………………………………………………

15. Is your school receptive to the concept of inclusive education? Yes ( ) No ( )

If yes state briefly

……………………………………………………………………………………

16. If no, state briefly.

……………………………………………………………………………………

17. What are the steps that can be taken in your school to ensure effective implementation of inclusive education? ..........................................................

18. On the average how long would it take to prepare a child with autism who is direct from home to the time he/she joins an inclusive class? Please tick below.

Below 2 years ( ) 2 years ( )

2 – 4 Years ( ) 4 – 6 ( ) above 6 years ( )

19. Are there any specific special education teachers assigned to handle inclusive education in your school? Yes ( ) No ( )

If yes, specify………………………………………………………………………………

20. In your view, how should inclusion education for children with autism be implemented?

21. In your opinion, what has prevented the full implementation of inclusive education for children with autism?

22. Give any other suggestions that can ensure children with autism are put in inclusive education set-up.
APPENDIX B

INTERVIEW SCHEDULE FOR THE HEADTEACHER

1. How long have you been in teaching profession?
2. For how many years have you been a head teacher?
3. What is your level of training in special needs education?
4. What categories of children with special needs are in this school?
5. What is your opinion about the status of inclusive education or children with autism at City Primary School?
6. What are some of the challenges you have experienced as the headmaster in the implementation of inclusive education or children with autism?
7. How have you overcome these challenges as the administrator of City Primary School?
8. What is the way forward for successful implementation of inclusive education or children with autism?
9. Who do you collaborate with-in and outside your school on issues related to children with autism?
APPENDIX C

FOCUSED GROUP DISCUSSION FOR OCCUPATIONAL THERAPISTS

1 a) what categories of learners with SNE are found in your School? What is their placement in the school?

2 a) How do you treat children with autism in this school? b) How do others treat them?

3 a) What is the teachers perceptions in teaching a child with special needs in an inclusive class? b) What is the current practice in teaching as regards children with autism?

4 a) What support services are available for children with autism in this school? b) What can you write about these services? (affordability, adequacy and accessibility)?

5) What type of support is provided to children with autism towards meeting their daily needs/activities?

6) What skills/expertise will your school require to support children with autism?

7) What kind of programs are available in this school that involves children with autism and their parents?

8) Is the community/parents involved in planning and decision making?
APPENDIX D

INTERVIEW SCHEDULE FOR HEADS OF DEPARTMENTS

1) What categories of learners with SNE are found in your school? What is their placement?

2) What demeaning names are used in this school to refer to children with special needs? What about children with autism?

3) How are children with autism treated in the school? What about yourselves?

4) What is the school’s perception’s in educating children with autism in the mainstream classes? What is the current practice as regards the children with autism?

5) What type of support is provided to children with autism in the school towards them meeting their educational needs?

6) What skills will your teachers require to support children with autism in mainstream classes?

7) What are the benefits of teaching children with autism in the mainstream classes with their peers who do not have autism?

8) What are the challenges of teaching children with autism in an inclusive class?

9) (a) In your view as a head of department, do you support inclusive education for children with autism? Yes [ ] No [ ] (b) Explain….

10) What kinds of programmes are available in this school for children with autism and their parents?

10 (a) Are the community and parents involved in planning, decision making and implementation? (Counselling, nutrition, educational, occupation, swimming, etc? Yes [ ] No [ ]
APPENDIX E

INTERVIEW GUIDE FOR THE MINISTRY OF EDUCATION OFFICIALS

1a) Have you ever heard about inclusive education?
    b) How did you learn about it?

2) What is the policy on inclusive education in Kenya? What guidelines govern it?

3) In your view, what is the status of inclusive education for children with autism at City Primary School?

4) What are some of the challenges that your department in the Ministry of Education experiences in the implantation of inclusive education for children with autism?

5) How is the Ministry of Education overcoming these challenges?

6) What could be done to have a successful implantation of inclusive education for children with autism?
APPENDIX F

QUESTIONNAIRE FOR TEACHER’S AIDES

1 What is your position in the school? Please tick. Special education teacher ( )
   Regular teacher ( ) Teacher’s aide ( ) Others_______

2 Age…20-30 ( ) 31-40 ( ) 41-45 ( ) 46-50 ( ) 51-55 ( )

3 Female ( ) Male ( )

5 Job group…………………………………………………………………………………..

6 Level of education……………………………………………………………………….
   Primary ( ) Secondary ( ) Tertiary ( ) University ( ) Postgraduate ( )

7 When did you start teaching children with autism?

8. What is your role as a teacher’s aide? Please tick
   (a) Assisting in implementation of Individualized Education Programme IEP ( )
   (b) Assisting the teacher in lesson preparation ( )
   (c) Keeping the children clean ( )
   (d) Helping in feeding of the children ( )
   (e) Helping in changing the children’s cloths ( )
   (f) Any other duties______________________________________________________

9. If you were to be trained on new aspects on inclusive education, what three areas of knowledge would you like to learn? List them in the order of priority to you.
   _______________________________________________________________________

   Is your school receptive to the concept of inclusive education? Yes ( ) No ( )

10 If yes, state briefly

   ……………………………………………………………………………………. 
11 If no, state briefly.

.............................................................................................................

12 What are the steps that can be taken in your school to ensure effective implementation of inclusive education? .................................................................

13 On the average, how long would it take to prepare a child with autism who is direct from home to the time, he/ she join an inclusive class? Please tick below.

Below 2 years ( ) 2 years ( )

2 – 4 years ( ) 4 – 6 years ( ) above 6 years.

14 Are there any specific special education teachers assigned to handle inclusive education in your school? Yes ( ) No ( )

If yes, specify........................................................................................................

15 In your view, how should inclusion education for children with autism be implemented?

..................................................................................................................................

16 In your opinion, what has prevented the full implementation of inclusive education for children with autism?

17 As a teacher’s aide, how best do you think children with autism can be placed in inclusive settings?
APPENDIX G

INSTITUTIONAL OBSERVATION SCHEDULE

SECTION I: INSTITUTIONAL IDENTIFICATION
Province:_______________________ District:_________________ Sone:____________
School Name:__________________________________________________________

SECTION II: SCHOOL CHARACTERISTICS

1. TYPE
   [ ] Public = 1 [ ] Private = 2

2. LEVEL
   [ ] ECDE=1 [ ] Primary = 2

3. Category
   Boys [ ] Day [ ]
   Boarding [ ]
   Girls [ ] Day [ ]
   Boarding [ ]
   Mixed [ ] Day [ ]
   Boarding [ ]

4. Type of Special need (Records)
   a. Mentally handicapped
   b. Visually impaired
   c. Hearing impairment
   d. Physically handicapped
   e. Multiple handicapped
   f. Speech disorders
   g. Autism
   h. Cerebral palsy
   i. Albinism
   j. Deaf/blind
   k. Others

A CLASSROOM LEARNING ENVIRONMENT

<table>
<thead>
<tr>
<th>ELEMENT</th>
<th>OBSERVATION SCALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ventilation</td>
<td>1 = Poor</td>
</tr>
<tr>
<td>2. Lighting</td>
<td>1 = Poor</td>
</tr>
<tr>
<td>3. Classroom Size</td>
<td>1 = Poor</td>
</tr>
<tr>
<td>4. Furniture</td>
<td>1 = not adequate</td>
</tr>
<tr>
<td>5. Floor</td>
<td>1 = rough and tidy</td>
</tr>
<tr>
<td>6. Learning Centers (shop’ corner, garden corner, curiosity, centre etc)</td>
<td>1 = not available</td>
</tr>
</tbody>
</table>
### C. CLASSROOM INSTRUCTION OBSERVATION

<table>
<thead>
<tr>
<th>Category of observation</th>
<th>Observation Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Activities of daily living</td>
<td>1 = not time tabled 2 = time tabled and practiced 3 = time tabled and practiced</td>
</tr>
<tr>
<td>8. Adapted curriculum</td>
<td>1 = not available 2 = available but not in use 3 = available and in use</td>
</tr>
<tr>
<td>9. Vocal instructions</td>
<td>1 = not time tabled 2 = time tabled and not practiced 3 = time tabled and practiced</td>
</tr>
<tr>
<td>10. Individualized Educational Programme (IEP)</td>
<td>1 = not available 2 = available but not in use 3 = available and in use</td>
</tr>
</tbody>
</table>

### D. SCHOOL ENVIRONMENT

<table>
<thead>
<tr>
<th>Category for observation</th>
<th>Observation scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste Management</td>
<td></td>
</tr>
<tr>
<td>11a. Dustbins</td>
<td>1 = Not available 2 = Available and not in use 3 = Available and in use</td>
</tr>
<tr>
<td>b. Refuse Disposal pits</td>
<td>1 = Not available 2 = Available and not in use 3 = Available and in use</td>
</tr>
<tr>
<td>12. Drainage</td>
<td>1 = Not available 2 = available with no functional manholes 3 = available with functional manholes</td>
</tr>
<tr>
<td>13. Land terrain</td>
<td>1 = Hilly 2 = Hilly but flat 3 = Flat</td>
</tr>
<tr>
<td>14. Paths in school</td>
<td>1 = rough paths without payments 2 = Narrow pavements 3 = Wide pavements</td>
</tr>
<tr>
<td>15. Ramps</td>
<td>1 = Not available 2 = Available but not appropriate 3 = Available and appropriate</td>
</tr>
<tr>
<td>16. Evidence of safety and security</td>
<td>Gate 1=Yes 2=No Fence 1=Yes 2=No Fire extinguishers 1=Yes 2=No Security personnel 1=Yes 2=No</td>
</tr>
</tbody>
</table>

17. The sources of water in the school?

18. The source of lighting for the school?
19. Means of transportation for pupils to school

20. Does the school have access to the following communication services?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Landline</td>
</tr>
<tr>
<td>2</td>
<td>Cell phone</td>
</tr>
<tr>
<td>3</td>
<td>Simu ya Jamii</td>
</tr>
<tr>
<td>4</td>
<td>Card Phone</td>
</tr>
<tr>
<td>5</td>
<td>Public Booth</td>
</tr>
<tr>
<td>6</td>
<td>Internet</td>
</tr>
<tr>
<td>7</td>
<td>Website</td>
</tr>
</tbody>
</table>

21. Which are the nearest health facilities accessed by institutions?

<table>
<thead>
<tr>
<th></th>
<th>Public</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dispensary</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Mobile Clinic</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Health Centre</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Hospital</td>
<td></td>
</tr>
</tbody>
</table>

E. RECREATIONAL FACILITIES

22. Recreational facilities available (tick as appropriate)

<table>
<thead>
<tr>
<th></th>
<th>Not available</th>
<th>Available and not adapted</th>
<th>Available and adapted</th>
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<tbody>
<tr>
<td>1</td>
<td>Soccer pitch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Volley ball Pitch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Net ball pitch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Athletics track</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Others (specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>