SCHOOL BASED FACTORS INFLUENCING THE IMPLEMENTATION OF INCLUSIVE EDUCATION IN EARLY YEARSEDUCATION AMONG RURAL PUBLIC PRIMARY SCHOOLS IN UASIN GISHU COUNTY, KENYA

BY

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DECLARATION

DECLARATION BY THE CANDIDATE

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DEDICATION

This work is dedicated to the almighty God, my sister in-law, Sarah Serem, my two daughters Elsen and June, and my son Martin. I also dedicate this work to Dr. Lydia Kipkoech who has been a fountain of my continued energy to its completion.

ABSTRACT

Trends in the provision of education for children with disabilities have since the past two and a half decades continued to focus on their learning in the same setting as that of their peers without special needs. The education approach now being most advocated for children with disability is inclusive education. Despite the many benefits of inclusion, difficulties inherent in this process are major setbacks to wider implementation of inclusive education. Therefore, the rationale of this study was non implementation of inclusive education (IE) The purpose of this study was to establish school-based factors that influence the implementation of IE in Early Childhood Development Education (ECDE) curriculum. The specific objectives of the study were to investigate the influence of perception, teacher knowledge and skills, learning environment and school managements' committee support on the implementation of inclusive education in rural public ECD centres in Uasin Gishu County. The study targeted a total of 1036 ECDE teachers and 492 head teachers in all the ECDE centres in all the six sub counties in Uasin Gishu County. The sample of the study comprised of 221 teachers and 196 head teachers in 196 ECDE centres. Probability sampling techniques such as simple random, stratified and proportionate were used to select schools (ECDE centres) and teachers, while non-probability sampling technique, specifically purposive was used. The study adopted research survey design situated in mixed methods and underpinned in a pragmatic philosophical worldview. The study hypothesized that teacher perception, teacher knowledge and skills, learning environment and school management's committee support are not associated with the implementation of inclusive education in rural public ECD centres. Primary data was collected using questionnaires, interview guide and observation guides. Data collected was analyzed both quantitatively and qualitatively. Pearson Correlation, Chi-square and Regression analysis, were used to establish the existence and strength of association between the study variables. Qualitative data was analyzed through reporting themes as they emerged. The analyzed data was presented in frequency tables and charts. The study was anchored by the Ecological Systems Theory by Bronfenbrenner, which spells out the complexity of the interaction and interdependence of multiple systems that impact on learners, their development and learning. The study findings indicated that there was no significant association between both the teacher's perception ($\chi2 = 0.834$; $df = 4$; $p = 0.934$) and teacher's competence ($\chi2 = 0.758$; $df = 4$; $p = 0.944$). On the other hand, there was significant association between the school learning environment ($\chi2 = 99.712$; $df = 16$; $p = 0.000$) and the support of the School's Board of Management (BOM) ($\chi2 = 83.849$; $df = 16$; $p = 0.000$) and the implementation of IE. School learning environment explained 19% to implementation of inclusive education while support of the School management committee explained 26.0% to implementation of inclusive education. Interviews with the head teachers indicated that the two main challenges; lack of teaching and learning materials and resources, and lack of funds stood in the way of implementation of IE. The study concluded that, teacher's perception and teacher knowledge and skills no longer counts but school learning environment and support of BOM counts. The study recommended mobilization of teaching and learning resources, assistive technologies and all other relevant aids towards the success of Special Needs Learning (SNL) as well as obtaining multiple sources of funds to enable successful implementation of IE.

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In this regard, the hypotheses that **"There is no significant association between perception of teachers and the implementation of inclusive education"** and "**There is no significant association between knowledge and skills and the implementation of inclusive education"** are rejected and concluded that perception of the teacher and knowledge and skills are significantly associated with the implementation of inclusive education in Uasin Gishu County .On the other hand, the hypotheses that **"There is no significant association between the learning environment and the implementation of inclusive education** and **"There is no significant association between support from the school board of management and the implementation of inclusive education"** are not rejected and concluded that learning environment and support from the school board of management are not significantly associated with implementation of inclusive education.

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ABBREVIATIONS AND ACRONYMS

ACCEPT	**Achieving Creative & Collaborative Educational Pre-service Teams**
ADHD	Attention-Deficit Hyperactivity Disorder
AT	Assistive Technologies
ATEN	Assistive Technology Education Network
BEFA	Basic Education for All
BOM	Boards of Managements
BVLF	Bernard Van Lee Foundation
CAST	Centre for Applied Special Technology
CBR	community based rehabilitation centre
DAP	Developmentally Appropriate Practice
DEO	District education Officer
ECD	Early Childhood Development
ECDE	Early Childhood Development Education
FPE	Free Primary Education
GoK	Government of Kenya
ICT	Information and Communications Technology
IDEA	The Individuals with Disabilities Education Act
IE	Inclusive Education
IEP	individualized education programs
ISO	International Organization for Standards
KCSE	Kenya Certificate of Secondary Education
KESI	MoEST Kenya Education Staff Institute
LD	Learning Disabilities
LMICs	Low Middle Income Countries
LTSM	Learning and Teaching Support Material
MCT	modern communication technology
MDGs	Millennium Development Goals
MoE	Ministry of Education
NACECE	National Centre for Childhood Education

NAEYC's	National Association for the Education of Young Children's
NCLB	No Child Left Behind Act
NCSNET	National Commission on Special Needs in Education and Training
NGOs	Non-Governmental Organizations
PBA	Performance-based assessment
PTAs	Parents Teachers Associations
RESNA	Rehabilitation, Engineering and Assistive technology society of North America
SBST	School-based Support Teams
SENs	Special Educational Needs
SGB	School Governing Body
SIAS	Screening, Identification, Assessment and Support
SMCs	School Management Committees
SNE	Special Need Education
SDGs	Sustainable Development Goals
TLSE	GOK Collaborative Teaching in Inclusive Settings
UN	United Nations
UNCRC	United Nations Convention on the Rights of the Child
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations International Children's Fund
WHO	World Health Organization

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CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1 Introduction

In this chapter, the study presents the meaning of inclusive education (IE) and its origin and concept as enhancing education for all. It gives rationale for IE and its pedagogy approaches. The purpose of the study of the study which is to establish school-based factors that influence the implementation of inclusive education in ECDE curriculum is stated. Alongside the purpose the objectives of the study are stated and it includes investigating the influence of perception and teacher knowledge and skills of teachers on the implementation of inclusive education in ECDE curriculum among others The study is significant because it will be a source of information on strategies to ensure effective implementation of IE, besides giving area(s) of research. The justification for the study is that Kenya, being a signatory in all the internal conventions on inclusive education need to ensure effective implementation of IE. The theory underpinning the study is Ecological Systems Theory of Bronfenbrenner's (1992), which postulates that, support is provided within the framework of an integrated, holistic educational support structure

1.2 Background of the Study

Inclusive education bears its origin to an international perspective at the Salamanca World Conference in 1994 in Spain (Ainscow& Cesar, 2006). In developing countries, inclusive education is seen as an approach to serve special educational needs of children within general education settings. However, according to Bailey (2008), inclusive

education refers to an education system which constantly works on increasing participation and removing exclusion from all the aspects of schooling, in a way which makes a learner feel no different from any other learner and which ensures smooth transition within the same school environment. Bradshaw and Mundia (2006) quote some variables that have the most influence on process of inclusion. Related to teacher they highlight efficiency, work experience, beliefs about students and their education, educational environment in which they put accent on availability of support. As shown in earlier studies, teacher quality is an essential factor in student learning (Blantonet al.,2003).Inclusive educators realize that they are responsible for providing a learning environment for all students, even those who are struggling (Fallon & Brown, 2010).Besides, internationally, inclusive education is seen as a system which caters for the needs of a diverse range of learners and supports diversity, effectively eliminating all forms of discrimination (UNESCO, 2009). Education is a right for all children, and inclusive education aims to ensure that all children have access to an appropriate, relevant, affordable and effective education within their community. Most conceptual literature on inclusive education was Northern (European and North American) in origin, taking a 'whole-school' approach to institutional change (Davis &Peters, 2011), and influenced by the social model of disability. Children in special schools were seen as geographically and socially segregated from their peers, and the initial movement to integrate these students in mainstream schools ('integration') shifted to one where the whole school was encouraged to become more adaptable and inclusive in its day-to-day educational practices for all students ('inclusive education').

Pedagogy in particular was highlighted as the key to meeting all students' educational needs by making the curriculum flexible, and so more accessible. By recognizing that teaching methods which can make curriculum accessible to children with disabilities can also make learning accessible to all students (Ainscow, 2012), a teacher or school principal is well on the way to improving the overall quality of their school. In this way, inclusive education is not a disability-only issue, but an educational quality issue. According to a report published by the World Health Organization (WHO, 2011), 15% of the global population (200 million) suffers from some form of disability. Some of them are children, women or aged persons with disabilities. Charema (2007) claims that, 87% of individuals with disabilities in developing countries live in rural areas. Inclusive education is considered to be a means of providing educational opportunities for all children, including children with disabilities. This means placing children with physical disabilities, behavioural or academic difficulties or social concerns together with regular children in mainstream classrooms (Wilczenski, 2012).

Special needs education started in Kenya after the end of the Second World War and has since been mainly offered to four categories of children with disabilities, namely; children with hearing impairments, mental handicaps, visual impairments and those with physical handicaps (GoK, 2007). Education to these children was only offered in special schools until the 1970s when units and integrated programs were initiated. However, Educational opportunities for children (learners) with special needs and disabilities are a major challenge to the education sector.

The national education system has been characterized by lack of systems and facilities that respond to the challenges faced by learners with special needs, particularly in

schools in rural Kenya (Charema, 2007).The government is placing emphasis on inclusive education through regular schools for SNE learners as opposed to the practice of strictly using special schools and special units attached to regular schools. However, special schools and units are essential for learners with special needs in the areas of hearing, visual, mental and serious physical challenges. With the increase in demand for special needs education and in line with the international development, the government has adopted Inclusive Education (GoK, 2007). This approach will increase access to education for children with special needs. Inclusive education calls for restructuring of the education system in terms of physical facilities, curriculum, instruction and other aspects to children joining schools of their choice and convenience. It is important to note that the government will face serious challenges in providing education to all its citizens with special needs in education unless it implements inclusive education (Wilczenski, 2012). The government under the Free Primary Education (FPE) program is facilitating provision of additional capitation grants to facilitate implementation of inclusive education. The funds are provided to learners with special needs enrolled in both special education institutions and units attached to regular schools. So far, majority of learners with special needs and disabilities in Kenya do not access educational services. For instance, in 1999 there were only 22,000 learners with special needs and disabilities enrolled in special schools, units and integrated programs. This number rose to 26,885 in 2003 (Kiptoon, 2006). This compares poorly with proportion in general education.

Currently, there are over 1100 units and 100 public special schools in the country which include vocational and technical institutions that cater for learners with special needs

and disabilities (GoK, 2007). In view of this, this situation calls for a re-appraisal of available approaches to expand Special Needs Education services so as to achieve an enrolment rate at par with that of other children. To attain this, Kenyan Government needs to address impeding factors to the realization of inclusive education and simultaneously develop and implement guidelines that mainstream special needs education at all levels of the education system. This study investigates factors influencing effective implementation of inclusive education in public ECD centers in Uasin Gishu County.

1.3 Statement of the Problem

The government of Kenya recognizes the significance of inclusive education in ECDE as the most important levelfor accelerating the attainment of Education for all (EFA) and the Sustainable Development Goals (MDGs)(Republic of Kenya, 2006a). The government has further demonstrated its commitments to the wellbeing of young children by signing various global policy frameworks such as the 1989 United Nations Convention on the Rights of the Child (UNCRC), the 1990 Jomtien world conference on EFA, the 2000 World Education Forum (Dakar, Senegal) and the 2000 Millennium Development Goals (MDGs). This has underscored the importance of EFA (Republic of Kenya, 2006b, in which universal access to learning is to be enhanced.

Although Kenya has been helped by United Nations International Children's Fund (UNICEF), the Bernard Van Lee Foundation (BVLF) and the Agha Khan Foundation, a lot remains to be done to train teachers and to establish additional schools (Odada& Otieno, 2012). Despite all the benefits that may accrue from ECDE and the commitments made by the government of Kenya to achieve Basic Education for All

(BEFA) through ECDE, there is still poor performance of ECDE sub-sector characterized by low enrolment of children and high rate of dropouts caused by school factors (Varld, 2008). Policy on Education, Training and Research (Republic of Kenya, 2005) supports this when it enunciates that in Kenya, efforts have been made to improve the implementation of inclusive education in the implementation of ECDE curriculum.

In Kenya, and particularly in Uasin Gishu County, special needs learners cannot access education as advocated by inclusive education practitioners, to the extent that public primary schools are reluctant to enroll specially challenged children in the pretext that they doubt their preparedness from ECDE centers (Uasin Gishu Integrated Development plan (CIDP)). This is attested by low enrollment and high rate of dropout of specially challenged children, as statistics at Uasin Gishu County education office reveal that only 29% in 2010, 30% in 2011, 26% in 2012 and 27% in 2013 of such children accessed ECDE. According to Khadija (2016), there was evidence of lack of support both from the school managers in supporting teachers who are teaching inclusive education. In addition, there is an insufficient knowledge and a lack of skills in supporting teachers teaching inclusive education as there has been no proper training for these teachers. Many scholars such as Kabiaru (2013) and Zwani (2018) have indicated that teachers of specially challenged children are not adequately prepared for entry into primary schools. Studies such as those by Blanton et al., 2003, Blanton et al., 2003 and Ainscow, 2012 have attempted to establish the factors contributing to this situation but have not focused on the basic and foundational factors that influence implementation of inclusive education and the magnitude of that influence. To this end, this study aimed at

establishing school-based factors that influence the implementation of inclusive education in ECDE curriculum.

1.4 Purpose of the Study

The purpose of this study was to establish school-based factors that influence the implementation of inclusive education in ECDE curriculum among rural public ECDE centers in Uasin Gishu County.

1.4.1 Objectives of the Study

In particular, the study sought to achieve the following objectives:

1. To investigate the influence of perception of teachers on the implementation of inclusive education in rural public ECD centers in Uasin Gishu County.
2. To establish the influence of teacher knowledge and skillsonthe implementation of inclusive education in rural public ECD centers in Uasin Gishu County.
3. To determine the influence of the learning environment on the implementation of inclusive education in rural public ECD centers in Uasin Gishu County.
4. To determine the influence of school managements' committee support on the implementation of inclusive education in rural public ECD centers in Uasin Gishu County.

1.5 Research Questions

This study was guided by the following questions:

1. What is the perception of teachers on the implementation of inclusive

education in rural public ECD centers in Uasin Gishu County?

2. How does teacher knowledge and skills influence the implementation of inclusive education in rural public ECD centers in Uasin Gishu County?
3. What is the influence of the learning environment on the implementation of inclusive education in rural public ECD centers in Uasin Gishu County?
4. To what extent does support from the school board of management influence the implementation of inclusive education in rural public ECD centers in Uasin Gishu County?

1.6 Research hypotheses

This study was guided by the following questions:

1. There is no significant association between perception of teachers and the implementation of inclusive education in rural public ECD centers in Uasin Gishu County
2. There is no significant association between teacher knowledge and skills and the implementation of inclusive education in rural public ECD centers in Uasin Gishu County
3. There is no significant association between the learning environment and the implementation of inclusive education in rural public ECD centers in Uasin Gishu County

4. There is no significant association between support from the school board of management and the implementation of inclusive education in rural public ECD centers in Uasin Gishu County

1.7 Limitations of the study

The implementation of IE relied on statements responded to by the Head teachers. Some of the head teachers may be tempted to respond positively for fear of being questioned sine they are in charge. This may have also been the case with some of the board of management members. This in a way may affect the results of the study, away from giving a true picture on the ground as far as implementation of inclusive education is concerned. The study was also limited to the school based factors. However, the study was cognisant of the fact that there are many other factors that influence the implementation of the IE. This makes the study not to be generalized for the implementation of IE in the entire education and community system.

1.8 Scope and Delimitation of the Study

The study was limited to school-based factors influencing the implementation of inclusive education in Early Childhood Development Education Centres (ECDEs). The researcher presumed school-based factors to include teacher perception, teacher knowledge and skills, learning environment and BOM support which formed the focus of this study. This is so because they are the most fundamental, yet crucial school factors to implementation of inclusive education in early years education (Amdany, 2018). The study was conducted in the six sub-counties of Uasin Gishu County in which

the teachers were selected proportionate to the number of the ECDE centers in those sub counties. Data for the study was collected from pre-school teachers and head teachers of the sampled ECDE centers.

1.9 Justification of the Study

Current trends in education focus on the importance of inclusive practices, characterized by valuing all, respect for differences, and enabling the full participation of all learners including addressing a sense of belonging for all (UNESCO, 2014). Kenya has been a participant and signatory in all the internal conventions on inclusive education despite the fact that not much has been achieved towards this endeavour, particularly at ECD level of education. The Education Act (2013) in Kenya emphasizes the need of mainstreaming all children at all levels of education regardless of their conditions. UNESCO (2001) report advocates for inclusive educational strategy for countries that are committed to 'Education For All' initiative, Kenya being one of them. Although there is a plethora of literature on inclusive education, majority of these studies focus on the integration of children with special need in 'schools for all'. These studies overlook the fact that inclusivity does not only concern itself with children with disabilities but rather with all children with a diverse array of special characteristics. Besides, these studies have been over-concentrated in other levels of education than the ECDE level, which is the foundation of schooling. This study seeks to bring on board inclusive education at the ECDE level and explore other diverse unique special attributes of children at this level in inclusive education.

1.10 Significance of the Study

Findings of this study will inform stakeholders about factors that need to be considered in inclusive education in regular schools in Uasin Gishu County while enhancing the government's effort towards effective implementation of inclusive education initiatives. The findings will also provide insights for hastening the otherwise slow implementation

of inclusive education trend in Kenya. Besides, the study results will inform the need to mainstreaming ECDE for inclusive education. Besides adding to the body of knowledge on inclusive education, the recommendations made in this dissertation will form a basis for further research.

1.11 Assumptions of the study

The study assumed that special needs children existed out there in the regular schools and teachers and the entire school administration are striving to implement inclusive education. This implies that the county governments and the national government whose functions are to ensure strategic implementation of inclusive have begun implementing IE in their respective primary school. Such entities are also assumed to have provided the necessary equipment and have ensured a conducive environment exists for learning has taken place. The other assumption is that, the existing human resource and in particular teachers have the requisite knowledge and skills as well as the attitude to implement inclusive education.

1.12 Theoretical Framework

This study adopted the Ecological Systems Theory of Bronfenbrenner's (1992). In the study, the theory is fully compatible with the concept of inclusion, where support is provided within the framework of an integrated, holistic educational support structure. In this study, Bronfenbrenner's theory is used to demonstrate the complexity of the interaction and interdependence of multiple systems that impact on learners, their development and learning (Swart & Pettipher, 2005).

Bronfenbrenner compares the different environments or social contexts in which children operate and all are interrelated. These nested structures, contexts or environmental systems consist of the microsystem, the mesosystem, the exosystem and the macrosystem, which all interact with the chronosystem. Donald, Lazarus and Lolwana (2002) clarify the four systems conceptualised by Bronfenbrenner as follows:

(i) Microsystem: These systems can consist of the family, school or peer groups with whom learners are interacting in face-to-face situations on a daily basis. These systems are characterized by patterns of daily activities, roles and relationships that have a direct effect on the learners' development. As a microsystem, this study sought to examine the influence of school and the teacher on the strategies that teachers use to teach children with disabilities in inclusive settings. Child development scholars such as Eerke (2008): Feldman (2014): Rofley(2008) observe that the immediate environment of the child, that is the microsystem has the earliest and most influence on the child. The teachers' attributes (attitude and knowledge and skills), school environment and BOM support were examined against the implementation of inclusive education.

(ii)Mesosystem: The mesosystem is a set of microsystems connected with one another. It is at this level that interaction between the peer group, school and family systems take place. What happens in one microsystem such as the home or peer group can influence how the learner will respond in the other microsystem (school) or *visa versa*. In this study, particular entities that include peer group and the school environment were considered in the implementation of IE. The entities mirrored two objectives of the study, the family as represented by parent representatives in the BOM and the school environment through teachers whose attributes were also considered. This was

important because studies have shown that children copy relational Values and skills that teachers model (Bronson. 2000: Florezi. 2011: Galinsky, 2010: Saami, 1999). The mesosystem acknowledges the direct and indirect influences that Children have on each other, and the influence that pre-school the teacher has on the Children (Fieldman, 2014).

(iii)Exosystem: This refers to the larger social systems in which the child is not directly involved. However, the learner may be influenced by people who have intimate (proximal) relationships with him or her in the microsystem. Examples include the parents' place of employment and local community organizations. The child is not directly involved at this level, but he or she experiences the result of negative or positive forces involved with the interaction with his or her own subsystem. The study did not consider the exosystem, but it takes cognisant of the fact that remotely, it affects the implementation of IE

(iv)Macrosystem: This level is regarded as equal to the social system as a whole. It involves all major social structures. It also contains the beliefs, values and customs that influence and are in turn influenced in a cascading manner by other levels of the system. Just like the exosystem, the study did not consider the exosystem, but it takes cognisant of the fact that remotely affect the development of the child in the implementation of IE

(v)Chronosystem: The interactions between systems and the effect on the development of the learner are crossed by developmental time frames. In explaining the eco-systemic approach proposed by Bronfenbrenner, Swart and Pettipher (2005) state that in terms of this approach, systems are patterns of organisation whose identity becomes more than simply the sum of their parts. Any individual person or situation can be thought of

simultaneously as both a discrete entity and part of different systems. The learner is, for example, part of a family, a school system as well as a peer system. Each of these systems operates in stable and predictable ways that contribute to its continuity, yet retains the possibility of fluidity and change. These systems operate as different, but interrelated, levels in constant dynamic interaction. Change at one level has an inevitable, although not always predictable, effect on the other levels. At any particular level there are subsystems that also interact with each other and with other levels of the system. Part of one subsystem may at times form part of other subsystems.

These systems tend to maintain themselves, but at the same time are constantly changing and reorganizing themselves in an attempt to achieve a state of equilibrium. A systemic understanding of change assumes circular rather than linear causality and the interrelatedness of all aspects of a situation. A small change at one level will potentially have an effect on the entire system. This approach acknowledges and accepts some degree of unpredictability. This model suggests that any individual is likely to experience a range of contexts shared with others, but that the interactions of the individual characteristics, time, contexts and chance will have different consequences for different learners. It implies that each individual consists of multiple systems in interaction and develops holistically.

The different levels of a system in the social context influence and are in turn influenced by one another in a continuous process of dynamic balance, tension and interplay (Donald, *et al.*1997). A fundamental element in Bronfenbrenner's model is the appreciation that the environment does not merely impact on the child, but that the child is also an active partake in his own development. The child's perception of his or her

context influence the way he or she responds to the human and physical milieu (Swart & Pettipher, 2005).Bronfenbrenner's theory is, as already mentioned, evidently consistent with the establishment of a holistic, integrated educational support structure. It acknowledges the important role that parents, educators, education officials, peers, the extended family, the community and wider government structures can play in providing support, not only individual learners, but also to all other systems that may impact on the development and maintenance of barriers to learning and development. This theoretical framework accentuates the need that educational support services must deal with all barriers to learning and development in a comprehensive and integrated approach in order to ensure that quality support is provided at various levels of the system.

The successful implementation of inclusive education is, to a large degree, dependent on the development of an effective education support structure. Hay (2003) emphasises that inclusive education primarily depends on adequate and effective support, as inclusive education without adequate support is inclusion by default. To achieve the aims of an inclusive education system, it becomes imperative that educators be trained and supported to meet the new challenges with confidence. According to the findings of Kgare (1999) providing support to educators and learners within an inclusive classroom presupposes roles and duties for which education support personnel have so far not been trained. Bouwer and Du Toit (2000) support this contention, reporting that educators perceive education support as "... gravely inadequate..." intensifying their general feeling of helplessness. In addition to educators, parents, school managers, School Governing Body (SGB) members and community organisations need to be empowered

to collaboratively fulfil their support roles.

Bronfenbrenner's theory has been used recently by Alvi, Usman and Amhad (2018), Kelelyo (2017) and Christensen (2016). Alvi et al. (2018) use the theory to explain changes in the use of modern communication technology (MCT) and how it has not only influenced the material lifestyle of young individuals but also has brought changes in their attitudes and perceptions regarding different issues concerning their daily lives. In their study, Alvi et al. (2018) found out that under the influence of complex nested systems of layers of environment, starting from the family of the young individuals to the global level, the change experienced by youth is more of a material nature whereas the basic fabric of values remains intact. The youth used to share their "meaning of success in life" with their parents and prefer to make their choices in life according to their parents' approval. Further, the study reveals that, the relation with grand-parents is of sentimental nature where they are considered as respectful figures. On the other hand, the use of increased MCT among the youth has decreased their neighbourhood bonding and intimacy with near relatives as compared to previous generation. The use of MCT has increased the influence of consumer culture creating an inclination towards the culture of “branded-products”. However, this has not created disloyalty towards country or alienation from religion among the Pakistani youth.

Kelelyo (2017) uses the theory to explain the complex art and science of language and language learning. According to the study, the ecological approach to language and language learning views includes the notions of a consistent theory of language, semiotics and dialogue; a physical, social and symbolic context; situational activities rooted intime, space, and a person's self and identity; a critical evaluation of the quality

of learning environments and educational activities as well as variation and diversity (Van Lier, 2004). The implication of these components to this study is that language learning is a context situated phenomenon, which includes nested linguistic ecosystems and relational -dynamic process of negotiation between learner and environment. Feedback to learners should be flexible, adaptive, and context-based (Lafford, 2009).Johnson (2008) uses Bronfenbrenner's theory with complexity theory as an alternative model of accountability in education. Johnson (2008) indicates that, the call for accountability within education has led to the increased examination of the academic achievement of students across the United States. Too often, however, schools and school districts are scrutinized by means of overly simplistic linear models that fail to consider the complexity of interactions that result in student achievement. Johnson (2008), therefore postulates that student achievement is instead best understood as a developmental outcome that emerges as a result of interactions among layers within a complex system.

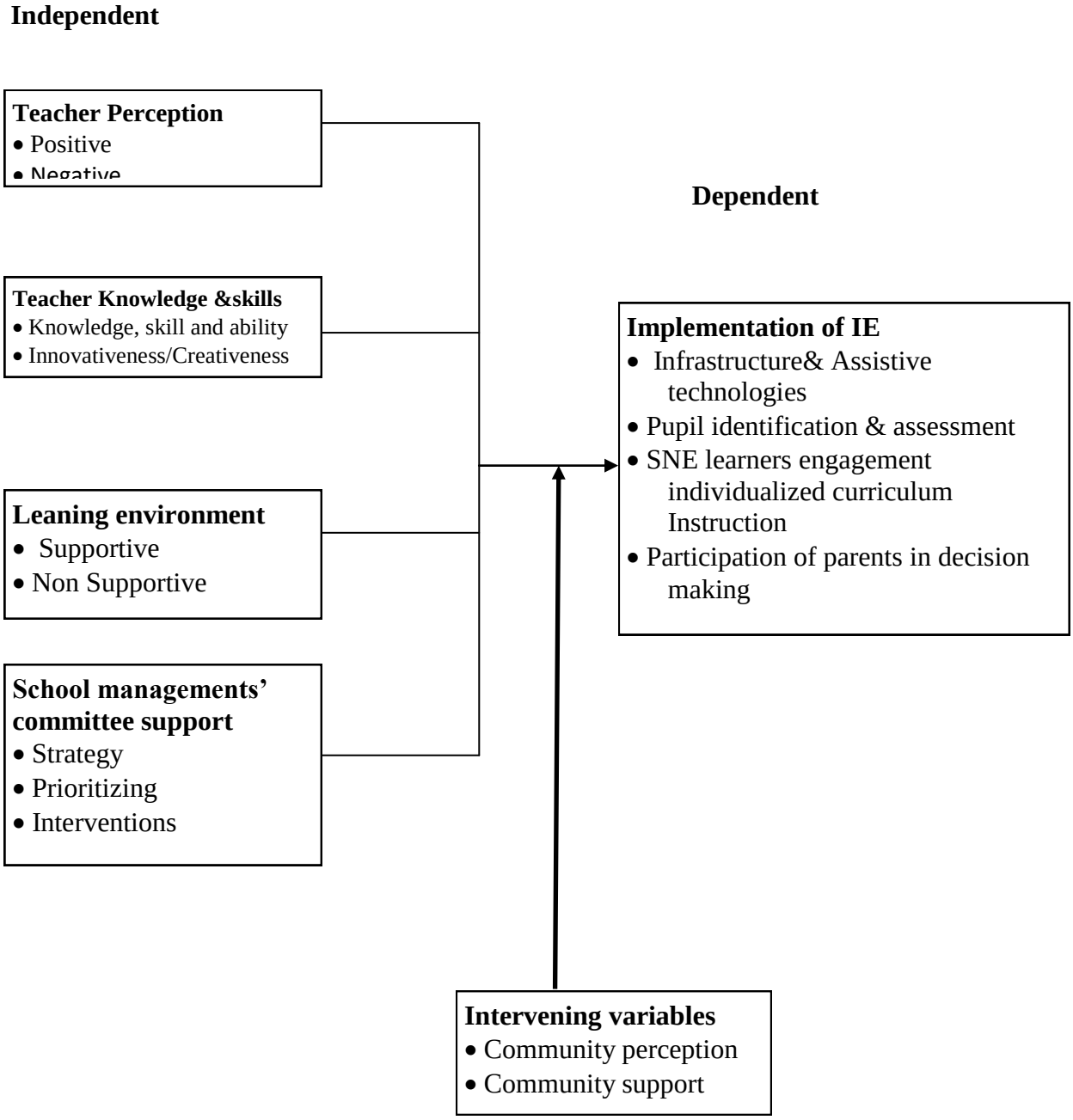
Organizations such as schools can be modelled using Bronfenbrenner’s ecological systems and analyzed using complexity theory as an appropriate and useful alternative to the linear models that often form the basis of educational research and policy. Ettekal and Mahoney (2017) also criticized Bronfenbrenner's ecological systems theory and the implications the theory possesses for research and practice. In criticizing, Ettekal and Mahoney (2017), agrees with network scholars who have challenged the notion of nesting in ecological systems. Ettekal and Mahoney (2017) specifically made issue with the fact that nesting in ecological systems theory may not be the precise way to conceptualize the interrelatedness of the various systems. For example, out-of-school

activities represent a microsystem, and policy surrounding funding allocation for out-of-school activities is an exosystem. From an ecological systems theory perspective, activities would be conceptualized as a subset of activity policy.

Conversely, a network approach would conceptualize these as two distinct systems, arising in distinct settings (one that contains the focal individual and one that does not) that influence each other through the patterns of social interactions among individuals directly and indirectly involved in the two systems. The latter network approach shifts the focus away from the place where social interactions occur (i.e., the activity is the microsystem) to the individuals engaged in social interaction within that place (i.e., the set of relationships between individuals within the activity is the microsystem). The network approach has been argued to more accurately represent the complex overlap among individuals' ecological environments.

Christensen (2016) uses the Bronfenbrenner's theory in terms of attempting to criticize it in a bid to explain the problems facing education in the 21st Century. Christensen (2016) agrees that, when studying an organization, transformation and spheres of influence of professions and in education, the Bronfenbrenner's Development Ecology model theory provides a tool for understanding the encounter between societal, organizational and individual dimensions, a continual meeting point where phenomena and actors occur on different levels, including those of the organisation and society at large. However, the theory of development ecology may be questioned for how it looks at the individual's role in relation to other actors in order to define and understand the forces underlying the professional development. The focus on the individual might prevent the understanding of group wise development. Resilience capacity on a mental,

intra level and an entrepreneurial way of building, developing and keeping networks gives the different levels in the Development Ecology model a broader understanding of what stimulates learning processes.



1.11 Conceptual Framework

Through collaboration, all role-players need to ensure that the school becomes an inviting, inclusive, health promoting arena where all learners are fully supported in order to maximise their individual potential as Kenyan citizens. It is against this background that the researcher undertook to establish the critical areas of support required by both learners and educators within the inclusive classroom. The researcher explored the available support structures in school and surrounding areas in order to recommend effective ways in which educators, learners, education support personnel, parents and community members can collaborate, with the goal of providing effective educational support structures in ECDE centres.

The perception of teachers towards implementation of inclusive education plays a significant role. Besides, the qualification of teacher, in terms of their competencies in inclusive education is equally significantly attributed to attaining the goals of inclusive education in ECDE curriculum implementation. Important also in the implementation of inclusive education is the learning environment. This comprises daily schedule, health and nutrition, resource availability, teacher-child ratio and medium of instruction at the ECDE centers. Finally, the curriculum content of ECDE education is equally prime in the implementation of inclusive education. However, the influence of school-based factors on the successful implementation of inclusive education is mediated by extraneous variables such as school characteristics, government policy and social and cultural attributes. Figure 1.1 presents a conceptual framework on which this study is anchored.

1.13 Philosophical Position of the Conceptual Framework

In this regard, it is envisaged that positive perception and teacher knowledge and skills of the teacher, supportive learning environments and strategic support of the school board of management will positively result in the implementation of inclusive education in ECDE centers.

1.14 Operational Definition of Terms

Early Childhood Development: Refers to the fundamental growth aspects of young children, below 9 year in formal education

Early year Education: This term refers to the period of years between 0-8 years. In this study, it refers to the level of education in early years, that is in pre-primary 1 (4-5years), primary 2 (5-6 years) and Grade 1 to 3 (formerly referred to as lower primary).

Early Childhood Development Centres: The term in this study is used to refer to infant institutions that offer education before primary level, and it part of primary education.

Implementation of IE: It is executing strategies of Inclusive education towards meeting set objectives that ensure learners with special needs benefit as much as possible from the education system.

Teacher Perception; It is the attitude being held by teachers or school staff on issues pertaining to IE, including integration of pupils into ordinary classes.

Individualized Instruction: Learning instructions in which they are differentiated for each learner by focussing on the specific needs of a particular learner.

Rural Public Primary School: A school located in rural area characterized by native and traditional way of life.

Inclusive School Environment: An educational setting that involves membership in general education classrooms with chronological age appropriate classmates,

having individualized and relevant learning objectives, and being provided with the support necessary to learn (Inzanno,1999).

Inclusive Education: Isa pairing of philosophy and pedagogical practices that allow each learner to feel respected, confident and safe so he or she can learn and develop to his or her full potential.

Learners with Special Educational Needs: This term refers to all learners who are experiencing barriers to learning and development, as defined in White Paper 6 (Department of Education, 2001).

School Management's Committee support for IE: Refers to a beyond compliance support undertaken by School Management Committee to ensure timely implementation of IE

School Management Committee; A body of pre-qualified and nominated persons legally mandated by the MOE under the education Act 2013 to manage primary schools in Kenya

School based factors

They are factors that are thought to directly affect implementation of IE. They include but not limited to teacher's perception, teacher's knowledge and skills, school learning environment and BOM support.

Special Education: Within the context of this research, this term refers to the education and support provided to those learners who experience barriers to learning within the context of a regular school setting.

Student with a Disability: A student having mental retardation, a hearing impairment including deafness, a speech or language impairment, a visual impairment including blindness, serious emotional disturbance, an orthopaedic impairment, autism, traumatic brain injury, health impairment, a specific learning disability, deaf-blindness, or multiple disabilities.

Teacher knowledge and skills: Academic and experiential possessions in which teachers have and is fundamental in executing their duties.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews relevant literature on school-based factors influencing implementation of inclusive education. Literature on ECDE curriculum, teachers' perception to inclusive education, school environment such as learning environment, daily schedule, resource availability, teacher-child ratio, medium of instruction and the implementation of inclusive education, ECD curriculum and inclusive education, stakeholders support on the implementation of inclusive education. The chapter also discusses the historical background to inclusive education, inclusive education in the developing world, historical development of ECD education in Kenya, and other research works done on inclusive education.

2.2 Inclusive Education Defined

Inclusive education is a global movement that emerged as a response to the exclusion of students who were viewed as different (e.g., students with disabilities, students of colour, students from lower caste backgrounds, students from low socio-economic backgrounds) by educational systems; these constructions of difference are highly consequential for they have mediated over time student access and participation in education. As Thomas and O'Hanlon (2005) stated, it "has become something of an international buzzword, almost obligatory in the discourse of all right-thinking people" (p. x). The notion of inclusive education, however, is highly contested. Definitions of inclusive education vary across nations (Artiles, Kozleski, & Waitoller, 2011), schools

(Ainscow, Booth, & Dyson, 2006a), and theinclusive education literature (Artiles et al., 2006). Whereas in the internationalcommunity, inclusive education is concerned with a broad equity agenda for allstudents, in the United States, inclusive education has been defined in terms of access to the general education classroom for students with disabilities (Artiles &Kozleski, 2007; McLaughlin & Jordan, 2005). Furthermore, with the advent ofaccountability reforms, the rhetoric of inclusive education has also focused on theacademic outcomes of students with disabilities (McLaughlin & Jordan, 2005).

As Slee (2011) pointed out, to discuss inclusion,there is need to first understand exclusion, which is more complex than unequal access and outcomes for students with disabilities. Students from non-dominant groups tend to be over-represented in special education in the United States (Waitoller, Artiles, &Cheney, 2010), Austria (Luciak&Biewer, 2011), Germany (Loser &Werning, 2011),Sweden (Berhanu, 2008),England (Dyson &Kozleski, 2008), and Australia (Sweller, Graham, & Van Bergen,2012). In the United States, disparities are also found within the special educationsystem. Special education students from non-dominant groups (e.g., Latino/a, NativeAmerican, and African American) are more likely to be removed from the generaleducation classroom (de Valenzuela, Copeland, Huaqing Qi, & Park, 2006; Fierros& Conroy, 2002; Sullivan, 2011), less likely to receive related and language services (Zehler et al., 2003), and less likely to enroll in higher education programs than their White peers (Wagner, Newman, Cameto, & Levine, 2006).

2.3 Background to Inclusive Education

The movement towards inclusive education for children with special needs began in the 1960s (Foreman, 2010). The United Nations (UN) has made a number of influential declarations regarding inclusive education, such as the Convention against

Discrimination in Education (1960), the Declaration on the Rights of Disabled Persons (1975), and the Convention on the Rights of the Child (1989). In 1990, the World Conference on Education for All was held in Jomtien, Thailand. A further conference in 2000 in Senegal gave rise to the Dakar framework for Education for All, in which the international community pledged to ensure education as a right for all people, irrespective of individual differences. Subsequently in 1994, inclusive education was put forward as a concept at the Salamanca World Conference on Special Needs Education in Spain.

The Salamanca statement is arguably the most significant international document in the field of special education (Ainscow& Cesar, 2006). In the Salamanca statement, inclusive education is described as a framework for action that would accommodate all children "regardless of their physical, intellectual, social, emotional, linguistic or other conditions" (Salamanca Statement and Framework for Action, UNESCO, 1994, Article 3). This includes disadvantaged or marginalized children such as street and working children from remote or nomadic populations, children from linguistic, ethnic or cultural minorities, and children with special educational needs and disabilities. The statement argues that regular schools with an inclusive setting are the most effective way to fight against discriminatory attitudes in order to build an inclusive society and to achieve education for all (UNESCO, 1994). Essentially, the Salamanca Conference on Special Needs Education gave approval to the notion of inclusive education (Ainscow& Cesar, 2006).

The UNESCO International Conference in Education was held in Geneva in 2008 and the focus of this conference was the inclusion of a more diverse range of learners,

regardless of ability or characteristics, as well as the promotion of respect for the needs and abilities of learners and the elimination of all forms of discrimination (UNESCO, 2009).During the subsequent years, there have been considerable efforts in many countries to effecteducational policy and practice towards inclusive education as is appropriate for that country (Ainscow, 2012). The appropriateness of separate school systems has been challenged from a human rights point of view (Ainscow, Booth, Dyson, Farell, Frankham, Gallannaugh, Howes & Smith, 2006). In order to ensure education for all, including those children who have disabilities, it is increasingly asserted that modifying ordinary schools is the most effective way of doing this (Sebba& Sachdev, 2008).

Thus, integrated programs take the form of special classes within ordinary schools. A problem reported by many countries that have national policies regarding integration is that, there is evidence of a significant increase in the proportions of pupils being categorized as disabled as a way to earn additional resources for the schools (Booth &Ainscow, 2002).

2.4 Inclusive Education in Developing Countries

Majority of the world's population of children with disabilities live in developing countries. Out of a world population, approximately 150 million live in Africa, Asia, Latin America, the Caribbean and the Middle East (Eleweke& Rodda, 2007). Despite international declarations regarding the implementation of inclusive education, there are challenges in both developed and developing countries, such as gaps between policies and practices, negative attitudes towards inclusion, and lack of sufficient funding (Charema, 2007).

In the Indian context “inclusive education is rapidly becoming a part of official rhetoric” (Singal, 2008). There are approximately 55 million children who are already excluded from the mainstream education system owing to their geographical isolation, social class, religion and different categories of ethnic group-based exclusion (Mitchell, 2008). Here in Africa, the Government of Uganda is now placing children with disabilities (such as hearing disabilities) in inclusive school settings. Another developing country, Costa-Rica, is also developing inclusion with different educational service models such as consulting teachers, educational assistance teams, joining teams and resource centers, though they have little publication in this field (Stough, 2013).It is suggested by the various researchers that developing, countries also need some changes in their policies to implement inclusive education. For instance, Singal (2008) points out that, in India, in order to bring about the successful implementation of inclusive education, it is necessary to motivate people and solicit for their support, to change classroom practices and implement some pedagogical rather than structural changes. Similarly, Kristensen, Onen&Loican (2009) argue that developing countries such as Kenya are facing similar challenges in the implementation of inclusive education. It is suggested that they also need some support regarding the scarcity of teaching materials, extensive diversity, negative attitudes and large classes.

2.4.1 Inclusion of Diverse Learners in Education

UNESCO (2008) recognizes the fact that inclusion process in education that addresses and responds to students’diversity by increasing their participation in learning and culture as well as reducingexclusion within and from education (UNESCO, 2008) was introduced in 2001. This policy attempted to address the problem of learners with disabilities by bringing downpressures that are meant to exclude such learners in

schools and other sites of learning by promoting access to, and participation in, curricula and belonging in school communities (DoE, 2001). It was concerned with achieving equity by identifying and addressing direct andindirect impediments to access, participation and belonging in school cultures, facilities and curricula (DoE, 2001).

In South Africa, the Ministry of Education released theEducation White Paper 6: Special Needs Education — building an inclusive educationand training system - in July 2001. The development of this policy started as long ago as October 1996 when the Ministry of Education appointed the National Commission on Special Needs in Education and Training (NCSNET) and the National Committee on Education Support Services (NCESS) to examine and make recommendations on all aspects of special needs and support services in education and training in South Africa (Department of National Education, 1997). A joint report on the findings was then presented to the Minister ofEducation in November 1997. This extensive report included the findings of the national investigation as well as avision, guiding principles and strategies for developing an inclusive system of education and training. Based on the report of the Consultative Paper 1 on Special Education,building an inclusive education andtraining system, findings and recommendations were released by the Ministry of Education in August 1999 (Department of National Education, 1999).

The aim of the White Paper was to reconstruct schools and schooling to meet thelearning needs of a diverse learner population as well as to realize social justice and transformation. As the curriculumin terms of content, language, classroom composition, teaching approaches, regulation of lessons, Learning and Teaching Support

Material(LTSM) and assessment is one of significant barriers to learning, guidelines were developed to facilitate and support curriculum differentiation in the classroom. In the context of the numerous changes presently taking place within the education system, concerns about the relation between outcome-based education and inclusion and the need to adapt the curriculum to suit learners with special educational needs in large classes with high teacher/learner ratios were addressed. Walton, Nel, Huggo and Muller (2009) suggest that one of the many challenges facing education in post-apartheid South Africa is the realization of the constitutional values of equality, freedom from discrimination and the right to a basic education for all learners.

Prior to the South African democratic government of 1994, learners with disabilities experienced great difficulty in gaining access to education. There were very few special schools and those that existed admitted learners according to rigidly applied categories.Learners from poor families who had learning difficulties could not be accommodated in special schools and, therefore, could also not qualify for educational support. The categorization system allowed only those learners with organic, medical disabilities to access support programs (White Paper 6, 2001). It was imperative that the continuing inequities in the special schools sector should be eradicated and that the process of representation in supporting learners with educational needs be accelerated in orderto become representative of the South African population. The Ministry of Education in South Africasupports this direction and sees the establishment of an inclusive education and training system as a cornerstone of an integrated and caring society and aneducation and training system for the 21st century (DoE, 2001).

2.5 Practising Inclusive Education

Stakes and Hornby (2010) suggest that teachers have to identify, possibly through individual assessment,children's learning style in order to meet their needs.By learning style, it meansthe application of an individual's cognitive style to a learning situation (Mortimer, 2000), the nature of the learning environment and the structure of a lesson (Chinn, 2001). Cognitive style is concerned with an individual's characteristic and relatively consistent way of processing incoming information of all types from the environment. The argument is predicated on the premise that since each person is different, 'the way he learns will also differ' (Exley, 2003). This means that the teacher has to teach to satisfy the learning style of the different ranges of students in the class. This situation may be difficult as postulated by Gyimah (2006), who indicated considering the huge numbers of class sizes that some schools particularly in countries such as Ghana have to deal with.

Norwich and Lewis's (2001) study, found out that there is no Special Needs Education specific pedagogy. He quashed the belief of the generic teaching which assumed that 'what works with most pupils also work for all pupils'. Though some differences may seem to exist, for instance, in the approaches used in teaching children with autism compared with children with specific language impairments, Florian and Holly(2010)found that the 'teaching approaches and strategies themselves were not sufficiently differentiated from those that are used to teach all children to justify categorization as specialist pedagogy'. This view, not withstanding, Florian (2005) recognizes that what works for most children does not work with some. It will therefore mean that if we want all children to access the school curriculum and succeed academically, some form of differentiation will be required. In Kenya the recommended

teaching approach is child centered and participatory, which is effective in facilitating learning based on individual needs of the child (KIE, 2008). The ECD handbook developed by Kenya Institute of Education (KIE)emphasizes on the development of individualized education programs (IEP) for differentiated curriculum instructional plan.

2.6 Teachers' Perceptions on Implementation of Inclusive Education

As countries move to embrace inclusion, increased attention has been paid to the attitudes of those directly involved in facilitating authentic inclusive practices (Cross, Traub, Hutter-Pishgahi, & Shelton, 2004; Wong & Cumming, 2010). Given their significant role as an agent of change within the classroom, teachers' positive views toward inclusion can contribute to others forming affirmative positions toward inclusive education (Guralnick, 2005). Inclusiveeducation is likely to be unsuccessful when teachers do not hold positive attitudes toward inclusion (Engelbrecht, Oswald, Swart, & Eloff, 2003). Moreover, teachers' attitudes have a significant impact on learning in an inclusive classroom. For instance, Murphy, Delli, and Edwards (2004) found that children are more motivated to learn from teachers who are caring and show respect. When teachers adapt their teaching strategies to meet the needs of children with learning difficulties, those children will benefit from their adapted instruction (Vaughn, Gersten, & Chard, 2000).

Such findings cast the investigation of teacher attitudes as pertinent to the promotion of inclusive education. For instance, a study done by Yuen and Westwood (2002) found that many Hong Kong secondary school teachers found children with special needs an additional burden and felt that they should not be included in their already stressful

working environment. This finding has been supported by other numerous teacher-related variables which have been shown to influence the implementation of inclusion in the classroom. In their review, Avramidis and Norwich (2002) found that younger teachers and those with fewer years teaching experience are more likely to be positive about inclusion. Parasuram (2006) found a similar result, suggesting younger, less experienced teachers are more likely to adapt their skills and resources to accommodate all types of students. In terms of environmental variables, financial and personnel support to regular classroom teachers were found to be the most consistent predictor ofsuccessful inclusion (Avramidis& Norwich, 2002).

Research reveals that school staff believes that they are under-prepared to deal with students with special needs (Forlin& Chambers, 2011). Reports of under-funding, lack of teacher preparation and growing classroom demands are cited as persistent obstacles to successful inclusion (Glazzard, 2011; Idol, 2006; Loreman&Deppeler, 2002; Winzer& Kas, 2011). A growing body of research suggests that positive teacher attitudes towards inclusion are the most important factor governing the success of inclusive education (Jordan & Stanovich, 2003, 2004; Moberg, Zumberg, &Reinmaa, 1997; Murphy, 1996; Sharma, Forlin&Loreman,2008). Beliefs and attitudes about inclusion are highly varied within the education community and consequently highly influential as to whether or not inclusion is successful in classrooms and schools (Wilkins &Nietfield, 2004). In fact, teachers' resistance to inclusion is one of the most challenging aspects of implementing an inclusive policy (Avramadis& Norwich, 2002;Brighton, 2003; Dyson, Farrell, Polat, Hutcheson, &Gallannaugh, 2004). In an article describing a project dubbed ACCEPT (Achieving Creative & Collaborative

Educational Pre-service Teams), Toni, Munk, Bosma, and Rouse (2007), indicated that pre-service educators, also referred to as teachercandidates, benefit from instruction on specificcollaborative behaviors and, perhaps moreimportant, opportunities to collaborate withtheir special or general education counterpartsduring their education. With regard to the implementation of the project, the article indicates that special education teachers typically had a more positive outlook and attitude towards inclusion than general education teachers (Woolfson, Grant & Campbell, 2007). Not only is it likely that special education teachers are more positive towards inclusion because they have a more positive perspective about the abilities of children with special needs (Woolfson et. al., 2007), it is also likely that they have had more training and,therefore, increased confidence about teaching within an inclusive classroom (Buell, Hallam &Gamel-McCormich, 1999; Subban&Sharma, 2006). Special education teachers often see themselves as supporting the general classroom teacher in the implementation of inclusion (Bean, Hamilton &Zigmond, 1994); however, the daily learning experiences of all students in each classroom is ultimately dependent on the classroom teacher.

Negative teacher attitudes toward inclusion exist for various reasons. Some classroom teachers believe that students with disabilities included in the classroom detract from the teachers' time with other students, and consequently are less effective in teaching theirnon-disabled students (Jordan & Stanovich, 2004; McGhie-Richmond, Underwood, & Jordan, 2007; Stanovich & Jordan, 1998). Conversely, some teachers may view students with disabilities as beyond their personal instructional responsibility (Stanovich & Jordan, 1998; 2004). In summary, research points to a number of significant student,

teacher, and environmental factors that contribute to the formation and maintenance of teacher beliefs, which consequently impact the eventual success of inclusion.

Increasing diversity and inclusiveness ofpublic school classrooms has evolved from discussion and debate more than a decade ago toa continuum of initiatives in programs acrossthe country (Tonietal., 2007). These initiatives have severalinfluences that might include changes in certification laws, standards-based reform, feedback from graduates, or interests of particular facultyspecial and general educators in inclusive settings have suggested that collaborative teamingand teaching skills are of paramount importance(Jenkins et al., 2002; Pugach, 1996). However,these skills are not often adequately addressed inpreparatory programs (Voltz& Elliott, 1997).Pre-service educators, also referred to as teacher candidates; benefit from instruction on specificcollaborative behaviorsand, perhaps more important, opportunities to collaborate withtheir special or general education counterpartsduring their education. Thus, program enhancements that create shared courses and field experiences may be more effective than those thatprovide content on collaborative skills without opportunities to practice collaboration.Field experiences in diverse, inclusive classrooms have been strongly recommended forpreparing teachers for inclusive education (Lesaret al., 1997; Nowacek& Blanton, 1996). Indeed,experiential learning has been touted as havingmore impact on the development of teacher candidates than other aspects of their programs(Sileo, Prater, Luckner, Rhine, & Rude, 1998;Stowitschek, Cheney, & Schwartz, 2000). Theimpact of field experiences is further enhancedwhen undertaken early in the program and aspart of a team that includes counterparts fromspecial or general education programs. In sum,field

experiences in inclusive classrooms andpreparation for collaborative teaming andteaching have garnered significant support asintegral components of teacher preparation programs.

Although the movement for inclusive education is part of a broad human rights agenda, many educators have serious reservations about supporting the widespread placement of pupils with special educational needs (SNE) (Florian, 2008). Bowman (2006), in her fourteen nation UNESCO study of approximately 1000 teachers with experience of teaching children with special educational needs, reported a wide range of difference in teacher opinions regarding integration.Another study done by (Bukvic, 2014) revealed that 70% of examined teachers have none or very little knowledge about teaching SNE students, and their attitudesare mostly negative but younger teachers experience higher competencies. Further, some teachers that have positive attitudes about inclusive education would not accept SNE students especially if they had a chance to make choice. Competenciesof examined teachers in regular school are not equally developed. Such findings, in some aspect, could be attributed to teacher training college programs which have been altered in the last decades (Bukvic, 2014).

Inclusive education is a new phenomenon in education discourse and its uptake, while a bit higher in developed countries, inclusivity is slowly taking place in developing nations. Despite the generally negative attitude across board,the findings of a study done in the South East Europe depicted a significant effectof country, teachers' and teacher educators' perceptions of competencies being generally similar across the five Western Balkan countries. However, there were small differences (Nataša, Theo |&Mainhard, 2011).Preliminary discussions with element education majors revealed their overall

attitude of ambivalence about, and to some degree negativity toward, the notion of teaching in an inclusion class- room. It was therefore concluded that the approach to teacher preparation needed to address these concerns expressed by our systems now offer the model of teaching(Carnell & Tillery, 2005).

The teachers were found to favor different types of children for integration into ordinary classes. This is based on the study carried out by Leyser, Kapperman and Keller (2008) to establish the cross-cultural attitudes of teachers towards inclusion or integration in the United States, Germany, Israel, Ghana, Taiwan and the Philippines. Their findings showed that there were differences in attitude to inclusion among these countries. Teachers in the United States and in Germany had the most positive attitudes. Positive attitudes in the United States were attributed to inclusion being widely practiced there as a result of Public Law. Teachers in Germany exhibited positive attitudes to inclusion, though at the time of the study, Germany had no special education legislation. The teachers in Germany were not provided with special education training while their children with special educational needs were educated in segregated settings, and integration was therefore being practiced only on an experimental basis. Teacher attitudes were less positive in Ghana, the Philippines, Israel and Taiwan. The authors reasoned that this could probably be due to limited or non-existent training for teachers to acquire integration competencies. There were also very few opportunities for integration in these countries (Leyser et al., 2008).

Singal (2008) in another study concluded that many teachers believe that children who need academic moderation would be unable to cope with the level of academic demand in the mainstream schooling system. She argued that such children should be taught in a

separate system of segregated education. She also noted that inclusion programs are not fruitful for the average teacher or child. There is a negative correlation between student'sacademic ability and their level of disability such as dyslexia or autism (Slavin, 2011).

However, from a comparative study in inclusive and separate settings, the Canadian Council on learning (2009) found that there was a favorable academic outcome for students with special education needs educated in inclusive settings.From the range of studies discussed here, most reported that teachers possess positive attitudes or views on inclusive education (Ali, Mustapha &Jelas, 2006). If teachers have positive views on inclusion, then they value all children, whatever their needs, and interact with them accordingly (Whyte, 2005). Ali, Mustapha and Jelas (2006) used a self-rated questionnaire with teachers in Malaysia to measure teacher attitude. Their findings were that overall teachers had positive attitudes towards inclusive education and agreed that inclusive education intensifies social interaction, while it decreases negative stereotypes of special educational needs children. The authors argued for cooperation between mainstream and special education teachers in order to implement inclusive education.

Loreman, Forlin and Sharma (2007) in their study compared teacher attitudes in four countriesusing a questionnaire and found that teachers positively perceived inclusive education for children with special needs, and particularly those with social, emotional and behavioral disabilities.Ross-Hill (2009) shared the same view after examining the different attitudes of elementary and secondary school teachers towards inclusion, and how best to develop an inclusive environment based on these attitudes. The results indicated that most teachers either supported inclusion practices in regular classrooms

or did not have strong views on inclusive education. Croll and Moses (2000) investigated teachers'views on inclusive education and found that nine out of ten teachers thought that the regular classroom was the right place for children with disabilities.

They suggested that pre-existing teacher attitudes and views are fundamental to their resulting implementation and experiences of inclusive education.The physical placement alone of students with special needs into regular school does not solve the problems. No matter the inclusion is supported by the professional and parents, consideration of all viewpoints are crucial. Before implementing the inclusive education, it should be agreed by most teachers in school, especially who would teach the classes. Without the considerations of teachers' thoughts, decisions made are not validated.

While teachers may think that the small class teaching can enhance the efficiency and effectiveness of students' learning, the students with special needs should be paid more attention to. Nonetheless, the utmost importance is that teachers can tackle the learning problem of the developmentally challenged students and handle the atmosphere of the class in appropriate manner. Teachers without training may lose control without knowing how to handle the situation. However,a teacher could take back control of his/her class by not being the centre of all classroom routines. More interaction between students and the teacher are necessary for quality education. It is easier for teachers to know the students' progress and then adjust the teaching speed asteachers are often the pillars of learner's acquisition of quality education in any country.

Chhabra, Srivastava, and Srivastava (2010) carried out their study in Botswana, whose research purpose was to identify the attitudes and concerns of teachers towards the inclusion of students with disabilities in the general classroom. Their findings indicate that teachers in Botswana have somewhat negative attitudes with some concerns about inclusive education. This is similar to studies in Hong Kong that focused on primary and secondary teachers (Forlin, 2010; Forlin, Loreman, & Sharma, 2014; Leung &Mak, 2010). However, there is an absence of empirical research in early childhood settings.

A recent survey conducted by the Hong Kong Equal Opportunities Commission (2012), revealed that 50% of the principals and teachers disagreed to accepting children with severe disabilities while 20% of the principals and 50% of the teachers and professionals revealed they knew little about the development of inclusive education and related supports and resources available. Most notably, regular class teachers felt underprepared and untrained for inclusion (Equal Opportunities Commission, 2012).Unknown is whether similar attitudes were held within early childhood educationsettings.Given the importance of teachers' attitude, researchers have endeavored to determine a number of underlying factors to explain what contributes to their attitude, with much of this inquiry focusing on primary and secondary teachers in Western countries (e.g., Hsieh & Hsieh, 2012). Some of the underlying factors include teacher training, the types of special needs encountered, teachers' knowledge of special needs, teachers' experience of children with special needs, and the professional role held.The study further found that early childhood teachers in Hong Kong reported modest support for including children with special needs in inclusive classrooms. It appears that attitudes held by early childhood teachers either match or are slightly more

positive than that reported by their primary and secondary counterparts in other recent studies (Equal Opportunities Commission, 2012; Forlin, 2010; Forlinetal., 2014; Leung &Mak, 2010).

As substantiated by research, Rajovicand Jovanovic (2013) observe that the longer an individual has been involved with implementing inclusion, the more accepting he or she becomes. It may be that initial attitudes toward inclusion were neutral or negative, but over time, they become increasingly positive. Our finding of moderately positive attitudes to inclusion is noteworthy given that in Hong Kong, the government has only mandated inclusion since the 1990s. As mandatory directives from the authority may not always result in compliance or support (Yeung, Taylor, Hui, Lam-Chiang, & Low, 2012),

2.7 Teachers' teacher knowledge and skills on Implementation of Inclusive Education

There is need for early childhood specialists trained to work with young children with disabilities in inclusive settings(Donohue& Bornman, 2014; Bricker, 1995). Guidelines set forth in theIndividuals with Disabilities Education Act(IDEA) and the National Education Goalshave intensified the need for inclusive models of service delivery for young childrenwith disabilities and their families. Thesechanges compel personnel preparation programs to find new and effective ways to prepare individuals to function as earlychildhood inclusion specialists. Personnel lack skills to be effective in their workwith families (Gettinger, Elliott, &Kratochwill, 1992; Huff & Slaton, 1997).Enabling parents to be full partners with professionals requires significant changes in current approaches to parent involvement andprofessional development (Kems, 1992).Recent professional guidelines for usingappropriate assessment methods

with young children call for practices that incorporatethe second skill domain, performance-basedprocedures (Division for Early ChildhoodTask Force on Recommended Practices,1993).

A number of performance-basedstrategies for evaluating the progress ofyoung children with disabilities have beendeveloped in recent years (Bagnato&Neisworth, 1994; Schweinhart, 1993).Performance-based assessment (PBA) isespecially well-suited for documenting andfacilitating progress of young children in inclusive settings because of a number of reasons. These reasons include the fact that PBA permits a wide range of expression to and accommodate a comprehensive picture of performance, reflects an ecologically-valid approach toevaluating children's performance; and relies on direct observation of children making use of their skills in natural learning environments (Stoiber& Anderson, 1996). Despite endorsements of PBA by professional organizations and obvious advantages of PBA for young children with disabilities,most early childhood educators indicate that theyhave not received formal training nor do theyknow how to conduct meaningful performance assessment (Barnett,Macmann, &Carey, 1992; Gettinger, 1993).

Furthermore, collaborative teams and teamingprocesses are critical for school restructuringefforts called for in the National EducationGoals. Thus, interdisciplinary teaming wasidentified as a third domain of professionalskills necessary to facilitate successful inclusion of young children with disabilities.According to Pugach (1996) and Johnson (2008), specialized interpersonal skills, including trust building, decision making and conflict management, are necessary for effective collaborative team functioning. Unfortunately,professional preparation programs usuallydo not include

training related to successfulteam functioning (Arcaro, 1995).Furthermore, the majority of formal trainingexperiences are discipline-specific, with limited opportunities for instruction within aninterdisciplinary context (Bruder,Brinckerhoff, & Spence, 1991; Stainback&Stainback, 1996; Stayton & Miller, 1993).

Several proponents of early childhoodinclusive practices have suggested that consultation is a key to successful integration ofchildren with disabilities in typical pre-schoolenvironments (Salisbury, 1991). Consultationis a form of service delivery aimed at enhancing solution-finding techniques and developing effective inclusion competencies amongconsultees. The failure of early childhoodprofessionals in many environments toembrace the concept of inclusion is oftenlinked to gaps in knowledge and communication among these professionals, particularly between regular classroom teachers andspecial service providers (File &Kontos,1992). Specifically, many early childhoodeducators believe they do not possess theskills to implement inclusive practices andexpress a need for consultation to help themrespond to the unique needs of children withdisabilities in their classrooms (Whelan &Simpson, 1996; Majoko, 2019).

The fifth domain identified in the professional literature relates to working with young children who exhibit challengingbehaviours and/or attentionproblems. Increasingly, early childhood personnel mustfind ways to provide services for childrenwith attention deficits and other problematicbehaviours (Dunlap & Childs, 1996; McIntyre,1996). Due to their disruptive behaviours, children who exhibit attention and behavioural difficulties present a major barrier to successful inclusion (Ineke, Mariya, Mireille& Sabine, 2018; MacMillan, Gresham, &Forness, 1996). The “challenge” associatedwith inclusion of children who exhibit suchbehaviours lies in the difficulty of

adaptingenvironments to minimize the impact of theirbehaviour on overall functioning and learning.

In their study Gettinger, Stoiber, Goetz, & Caspe (1999) indicated despite teachers' needs for strategies toaccommodate children with diverse needs,parents and professionals differedsignificantly in their perceptions of professionals' competence in each skill domain.This finding points to a discrepancy in viewsbetween consumers and providers of earlychildhood inclusive services and underscoresthe need for more effective training and professional development in multiple areas at both the pre-service and in-service levels. Thegreatest observed difference in competence ratings between parents and professionalswas in the area of working with families. Knowledge and skills for working withfamilies have been identified as core competencies that all professionals who work inearly childhood settings should possess. (Kunter, Klusmann, Baumert, Richter, Voss& Hachfeld, 2013; Kusuma & Ramadevi, 2013).

This perceptionamong parents that professionals may needto develop stronger competencies in work-despite the lack of statistically significant multivariate effects, the observed differences in ratings of training between facultyand students paralleled the differences incompetence scores between parents andprofessionals. The greatest observed difference between faculty and students occurredin the area of interdisciplinary teaming, which may be explained, in part, by the fact that all university trainers were affiliated with single,rather than multiple, disciplines. In the study, the student ratings point to the need to incorporate more interdisciplinary training into pre-service programs. In fact, skills for collaboration and teaming with other professionals

are among current professional standards for individuals in early childhood settings (Kim, 2011; Umar & Abdullah, 2020; ATE et al., 1994).

There are more interesting results that emerged from the study by Gettinger,Stoiber, Goetz, and Caspe (1999). The parents and trainees differed significantly in their perceptions of importance for two skill domains, Interdisciplinary Teaming and Challenging Behaviours/Attention Deficits. They reported that competence in the Interdisciplinary Teaming domain was more important than did professionals and trainers. The importance ratings in the domain of Challenging Behaviours/Attention Deficits revealed a somewhat different pattern. Specifically, the highest importance ratings occurred for professionals, whereas the lowest importance ratings were for university trainers. This finding is consistent with the results of two other surveys of Wisconsin early childhood practitioners, each documenting a self-identified need among professionals for greater knowledge and skills related to inclusion of young children with challenging behaviours (Burton,1997). According to Burton (1997), children who required the greatest adaptation were those with challenging behaviours. Similarly, professionals felt the least prepared to provide services to these children in inclusive classrooms. Burton also found that professionals need capacitation in the area of handling challenging behaviour. Beyond identifying critical training content for professional development programs, the results of the study also confirm what has been documented in pre-service and in-service preparation programs, i.e., that direct or hands on experience was essential for enabling trainees to apply, adapt, and receive appropriate feedback about their knowledge and skills related to inclusion. Although a number of issues regarding the implementation of field-based experiences remain

unresolved (e.g. Optimal length and structure of experiences, amount of supervision, etc.), the overall benefit of practicum experiences in pre-servicetraining have been well-documented (Buck,Morsink, Griffin, Hines & Lenk, 1992). Scruggs and Mastropieri (1996) summarized the perceptions of teachers relating to including children with disabilitiesin their classrooms that, although most teachers (68%) reported theyhave support for inclusive education, littlemore than a fourth (27%) felt they hadreceived sufficient training for inclusion. Both these studied complement by focusing on what specific content domains are important and whatneeds to be addressed in training programs by considering the perspectives of various individuals who are affected by inclusive education practices. In this regard, there is need for research and collaborative partnerships to understand how to close the gap among trainers, trainees, parents, and professionals in their beliefs about the competencies being developed in training programs.

According to a study by Bukvic (2014), results indicated that teacher's personal perception of their own competency was that the necessary teacher knowledge and skillswere not adequate. However, they can be made and developed overtime. The study adds that competences of examined teacher in regular school are not equally developed. Reason for that could be, in some aspect, found in faculty for teacher training program which has been changed in last decades (Bukvic, 2014). Inclusive education process will result with different experiences, literature and researches. The study concluded that Inclusive education could be a benefit for all participants; teachers, students and parents, and that teacher competence is an important question as the basic carrier of educational process.

In another study in Europe, formal competence requirements for early childhood practitioners vary widely, in line with the diversity of early childhood systems,institutions, traditions and professional roles. While there are countries with formal competence requirements for both the profession and initial professional preparation at national level, others only have requirements for either the profession or professional preparation, raising questions of consistency between different aspects of the ECEC system (professional preparation, employment requirements, national curricula, etc.). Some countries have no formal competence requirements or profiles at all. The existence of a competence profile is generally of advantage for the development of an early childhood education and care system.

Several additional competencies have been described in the professional literature. Skill in making curricular and instructional accommodations and modifications has been identified as critical for both special and general educators (Fisher et al., 2003) and may be more useful to teachers than knowledge of diagnostic criteria and characteristics of specific disabilities (Peterson & Beloin, 1998). In addition to theaforementioned competencies, Fisher et al.(2003) suggested that preparation programs focus on fostering knowledge and skill in the areas of assistive technologies, supervision ofpara-educators, and positive behavioral support. In essence, the need for restructuring of teacher preparation programs in response to increasing diversity and inclusiveness of public school classrooms has evolved from discussion and debate more than a decade ago toa continuum of initiatives in programs across the country. These initiatives have several influences that might include changes in certification laws, standards-based reform, feedback from graduates, or interests of particular faculty.

One prominent early childhood teacher identity is that of the ‘good’ early childhood teacher. The identity of a ‘good’ early childhood practitioner has been shaped in part by practices that are read in key early childhood texts (Langford, 2005).One example of an appropriate practice is to ‘create a caring community of learners’ (Bredekamp & Copple, 2009, p. 17) where ‘teachers listen to and acknowledge children’s feelings and frustrations’. Not included in the developmentally appropriate practice (DAP) text, but possibly a viable alternative, might be to encourage children’s resilience and monitoring of their feelings.

The ability of university-based teacher education programs in the United States to produce competent educatorswho are ready tomeetthe challenges of21st centuryschooling has been closely scrutinized and hotly debatedinrecentyears(Lewin,2011).Teacher educationcurrently faces an urgent responsibility to transform its curriculum, pedagogy, structure, and delivery to better prepare pre-service teachers to negotiate thechanging landscape in educational policies and practices that influence K–12 classrooms (Boyle-Baise&McIntyre, 2008; Darling-Hammond, 2010; Fullerton& Ruben, 2011; Grossman & McDonald, 2008). According to Hulett (2009), one of the major changeshas been the redefining of both general educators’ and special educators’ roles as a result of legislativemandates such as the Individuals with DisabilitiesEducation Act (IDEA) and the No Child Left BehindAct (NCLB). To effectively teach large numbers of learners with disabilities in inclusive classrooms, content teachers and special education teachers must facethe reality and challenge of developing effective partnershipsthat provide equitable instruction and increase the performance outcomes for all students. According to Grant and Gillette

(2006) and Shamberger (2010), classroom teachers often lack the necessary knowledge and skills to deliver instruction effectively to a diverse group, particularly when faced with teaching learnerswith disabilities in the general education classroom and curriculum. One of the skills that classroom teachers often lack is the ability to collaborate.

In a study done by Frances, Yeung, Tracey, and Barker(2015), one of their findings, highlightthat the relative support for inclusion does not apply to children with the full spectrum of diverse learning needs, and more research attention is needed to ascertain why teachers are hesitant to support the inclusion of children with intellectual disability, physical disability, visual impairment, hearing impairment, ASD, or ADHD. The findings suggest that early childhood teachers' attitudes toward inclusion may be governed by the children's type of special need. The highest consent for inclusion was for specific learning difficulties and speech and language disabilities, whereas the lowest consent was for behavioural disorders, and this pattern is somewhat consistent with the views of primary and secondary teachers. Future research should examine whether the reasons given by primary and secondary teachers for why particular types of special needs are perceived to be more challenging are also views held by early childhood teachers (Frances et al., 2015).

2.7.1 Teacher Training Barrier to Effective Teaching and Learning

The competence of the teacher may be enhanced by training which however is not without challenges. According to Bagree and Lewis (2013) teachers are often simply not trained or supported to teach children with Learning Disabilities (LD),which makes these children among the most marginalised in terms of educational opportunity and

attainment. National standards for teacher training can vary considerably between countries and are often inadequate. Teacher training for regular teachers also rarely prepares teachers for working simply not trained or supported to teach children with LD, which makes these children among the most marginalised in terms of educational opportunity and attainment.

National standards for teacher training can vary considerably between countries and are often inadequate. Teacher training for regular teachers also rarely prepares teachers for working in diverse classrooms and in particular does not equip them with the confidence, knowledge and skills to effectively support learners with disabilities. This is a key reason why so many children with disabilities remain out of school or are excluded from the learning process within school. Bagree and Lewis (2013) further argue that if we are to reignite progress towards quality basic education (early childhood, primary and lower secondary schooling) for all, then regular teachers need to be prepared to meet the learning and participation needs of children with disabilities. To do this, they need to be given appropriate initial training, ongoing training and professional development, and ongoing access to adequate high-quality support and advice from specialist personnel.

A study by Mahlo (2012) reiterates that most classroom teachers indicated that they need intensive training in inclusive education so that they are able to support learners with special educational needs (SENs) in their classes. The classroom teachers were frustrated by situations that they were unable to handle, such as abuse children had experienced. Research further reveals that teachers who have not undertaken training regarding the inclusion of students with disabilities and special learning needs may

exhibit negative attitudes toward such inclusion (Van Reusen & Barker 2001), whilst increased training was associated with more positive attitudes toward the inclusion of students with disabilities (Powers, 2002). Training in the field of special needs education appears to enhance understanding and improve attitudes regarding inclusion (Kuester, 2000). Introductory courses offered through teacher preparation programs may sometimes be inadequate in preparing the general educator for successful inclusion (Beattie, Anderson & Antonak 1997).

Sometimes educators, often through inadequate training, use teaching styles that may not meet the needs of some of the learners. An educator may teach at a pace that only accommodates learners who learn very quickly. Alternatively, the pace and style of teaching may limit the initiative and involvement of learners with high levels of ability. What is taught or the subjects that learners are able to choose may limit the learner's knowledge base or fail to develop the intellectual and emotional capacities of the learner. Such barriers arise when sufficient attention is not given to balancing skills that prepare learners for work (vocational skills) and skills that prepare the learner for coping with life (life skills) (Department of Education, 1998). Some learners are excluded from certain aspects of the curriculum as a result of ignorance or prejudice. For example, learners with physical disabilities are often prevented from playing sports or are not given the opportunity to do so. Similarly, male and female learners are encouraged or pressurised to take certain subjects at school or at tertiary level according to their gender because those subjects will equip them for jobs that are stereotypically undertaken by men or women (Grossman,2004). Summarily the teachers are unqualified and under-qualified.

According to Savolainen (2009), teachers play an essential role in quality education and thus the quality of an education system cannot exceed the quality of its teachers. Studies show that teachers become more willing participants in inclusion when they view themselves as competent and prepared to teach students with disabilities. Hull (2005) reiterates that training needs to continue to provide assistance with differentiated instruction and with modifying and adapting curricula to meet various students' needs. The development of educators, service providers and other human resources is often fragmented and unsustainable. The absence of ongoing in-service training of educators, in particular, often leads to insecurity, uncertainty, low self-esteem and lack of innovative practices in the classroom (Department of Education 1998). This may result in resistance and harmful attitudes towards those learners who experience learning breakdown or towards particular enabling mechanisms. Teachers and researchers often express concerns about training when discussing the abilities of teachers to cater for the diverse needs in inclusive classrooms.

Loreman and Harvey (2005) argue that inclusion failed because in part, teachers were unable to meet the demands of modifying and delivering an appropriate curriculum to children with diverse educational needs because of incapacity. Barriers resulting from fear and lack of awareness may arise from the feelings of educators themselves. For example, learners with high ability are often regarded as a threat and therefore face denial of their significant abilities by unqualified and under-qualified teachers. Studies conducted on post-implementation of inclusive education in Swaziland reveal that a vast majority of teachers in the kingdom's schools are either not trained or under-qualified in inclusive education; hence they feel they are inadequately prepared to teach in an

inclusive classroom.

According to a study by Zimba (2011), lack of teacher training in some inclusiveschools in Swaziland has resulted to challenges in dealing with administrative requirements, as neither the administrator nor teachers were found to be competent with an inclusive curriculum. Training offered to teachers at the pioneer or pilot schools was lamented by most teachers as they felt 1 week of training was not enough to cover the vast and complex content and methods of the inclusive education field. According to Le Fanu (2005), in terms of knowledge, teachers need to be aware of the different forms of diversity to be found among children. These include gender difference, linguistic, cultural and ethnic diversity, social–emotional diversity, cognitive and academic diversity and sensory and physical diversity. Many of these diversities are interconnected and also embedded in various contexts. For instance, it is not possible to understand the problems faced by girls in schools without considering the impact of some traditional beliefs on the ways they are regarded and treated.

As Webster (2004) indicates, schools in Papua New Guinea can perpetuate and exacerbate repressive attitudes but schools can also be a ‘ladder of opportunity’ for girls as well as boys. The impact of inappropriate teaching and learning methods can be demonstrated in a study conducted in a primary school in Botswana. During class observations, Mukhopadhyay, Molosiwa and Moswela (2013) observed that teachers were using the teacher-centred method, which did not cater for individual differences. Their lesson notes were scanty without clear evidence on how they would meet the learning needs of learners with SENs. None of these teachers employed instructional accommodation during teaching and learning. Another interesting finding was that some

of the teachers preferred to use Setswana when interacting with learners with SENs during the lesson. Postobservation interviews revealed that teachers felt that learners with SENs did not comprehend well when instructed in English. The data suggested that the teachers were operating within the deficit model, which views student with disabilities as ‘incapable of learning’.

Mukhopadhyay et al. (2013) also observed that, at a school with a long history of practising inclusive education, regular teachers collaborated very well with special educators. Their teaching approaches were ideal because they employed instructional adaptations and strategies such as large fonts for learners with visual impairments and peertutoring to meet the learning needs of individuals with visual impairments. The culture of teaching at this school also emphasised team-teaching, instanced by the presence of regular and special educators who shared teaching responsibilities. The juxtaposition of these scenarios highlights the effectiveness of appropriate teaching methods against inappropriate ones. In a study by Najjingo (2009), key respondents and teachers agreed that the lack of instructional materials affected theaccess to all-inclusive education, where learners are supported by parents fully. This phenomenon is directly related to poor macro policy on these materials and the high costs on the open market. The critical lack of instructional materials means that though inclusive education is in place, when children with SENs lack learning aids and support appliances, their mobility is reduced and they feel inferior to their ‘normal’ peers (Najjingo, 2009). They have to continuously play catch up. As a result, their pace in learning becomes slow because they are not able to hear, see or express themselves properly or because they write more slowly than other children, and learning at unfriendly facilities results in

many of them failing to pass exams. It is evident that use of inappropriate teaching and learning methods and support material negatively impacts the process of implementing inclusive education and serves to indicate that the competence of the teacher is questionable or is being doubted.

According to Ritter (1995), various sources suggest that barriers in teaching a general and special education classes are problematic in the sense that inclusive classes require more of a teacher's attention than would be required in a general class. For instance, the findings of a study conducted by Schumm and Vaughn (1992) suggest that general education teachers are not prepared for the inclusion of special learners because they tend not tofocus on behavior problems in general mainstreamed classes, as long as the learners do not exhibit emotional or behavioral problems. Schumm and Vaughn (1992) maintainthat teachers are usually willing to make changes while the learner is taking tests or working on assignments, but they are less likely to spend time planning or making adaptations to the curriculum or test (preplanning) based on learner performance (post planning).

Another problem with general education teachers is that most teachers of inclusive classes are often unaware of a special needs learner and rarely use the psychological reports in their planning (Schumm &Vaughn, 1992). This, then, makes it imperative that inclusive class teachers be given assistance in planning for inclusive classes by theSBST and other support structures (Schumm &Vaughn, 1992).

In a study conducted by Trump and Hange (1996), through focus group interviews on the concerns of teachers for learners, they suggest that teachers should not allow their learners to become overly dependent on them. The central argument of the study by

Trump and Hange (1996)was that inclusive schools do not only require the implementation of new policies but also that teachers need on-going support, in-service training and time for the successful realization of an inclusive system. Teachers need adequate knowledge, skills and training to address diversity and to teach learners with special educational needs in effective, inclusive education. Most teachers, especially in the former disadvantaged schools, do not have the ability to manage diversity and, consequently, they experience feelings of fear and hopelessness. Furthermore, misunderstandings and misperceptions of the concept of inclusion also appear to frustrate its implementation. Lack of support and training, as well as a lack of knowledge of official policy documents, had led to some teachers developing a resistance to, and disillusionment with, teaching inclusive education (Swart, Engelbrecht, Eloff & Pettipher, 2002). In the light of the above, the need for support and on-going training is a priority. From the study by Swart et al. (2002), it appeared that the current in-service training does not always meet teachers 'needs. Their pre-service training has not adequately prepared them for educating learners with special educational needs and there appears to be a negative attitude towards in-service training which does not always bring about the desired changes (Swart et al., 2002).

2.8 Learning Environment and Assistive Technology

Assistive technologies are used as a cover term (umbrella) for adaptive devices and associated services. Adaptive products are also called Assistive technologies. There are however different descriptions of adaptive technologies. According to the worldwide categorization of functioning, disability and health (ICF), adaptive devices and technology are described as any device instrument or equipment made for enhancing the capacity of a disabled individual (WHO, 2014). As stated by Lancioni, Sigafoos,

O'Relly and Singh, (2013) assistive devices whose objective was to support persons with disabilities and those with special educational needs or rehabilitation requirements, enhanced functioning in everyday life and achieved higher standards of living. A detailed study of the categories of assistive technologies was well accomplished. It was about utilities and administration as indicated by establishments like rehabilitation, engineering and Assistive technology society of North America (RESNA, 2000), Centre for Applied Special Technology (CAST) Assistive Technology Education Network (ATEN, 2002) and many others. In this report, the ultimate catalogue consisted of 14 dissimilar principal application zones for adaptive devices whereas the entire 14 zones seemed relevant to the training setting, solely a paltry six applied to usual training exercises, the situation being so, teachers would definitely require training in choice devices regarding their own training and interaction with learners experiencing disabilities. The six areas concern the usual daily student activities and comprised computer access, mathematics learning, studying, reading and writing. Assistive technologies comprised especially designed supports and adaptive devices that made everyday functionality of a disabled individual work effectively and efficiently. These adaptive comprised of the following: powered and manual wheelchairs, auditory devices, assistive computer software technologies, prosthetics and ventilators. A number of informational and communicational technologies and devices pertaining to the practice of medicine might be considered "assistive technologies" (Gordon, Kezner, Sheldon & Hansen, 2007). Assistive technologies started from those of low-level designs to high level designs. According to Bouck, Flanagan,Miller and Bassette(2012), ISO categorized manufactured adaptive technologies as per thefollowing criteria: individual medical needs, capacity building in skills, individual health care and

protection, individual locomotion, housekeeping, exchange of information, transmission of the same, taking care of objections in sales of adaptive devices, enhancement of environmental structures and evaluation, hiring and technical education and finally leisure activities, as well as splint, prosthetics, decorative accessories and adaptations to homes and nursing homes (ISO 1999:2011).

Mobility assistive technologies include feeding robot, toilet frame, toilet seat, shower seat, dressing seat, cooking utensils and adapted cutlery, standing frame, supportive seat, corner chair, brace for club foot tricycle, artificial leg or hand, leg or hand splint, powered wheel chair and manual walking frame, crutch and walking twig. (Borg, Bernan-Bielerm Khasnabis Myhill and Raja, 2015) vision assistive technologies include; screen magnifying computer software, white cane, Global Positioning System (GPS) based navigation instrument, Braille reading and writing system, computer screen reader, talking book player, audio recorder and player and Braille chess that releases sound among others (Borg et al., 2015).Hearing assistive technologies include the headphone, hearing aid, amplified telephone and haring loop. Transmission assistive technologies included transmission cards with words (narratives) transmission board with ménages, symbols or pictures, electronic transmission device with recorded or synthetic speech. Cognitive problem (task) lists, picture schedule, calendars and audio recorder, adapted toys and games (Borg et al., 2015).

The evolution of assistive technologies had moved to a more individualized user focused strategy that was beginning from low-tech adaptive to sophisticated adaptive devices that incorporated highly advanced Information and Communications Technology (ICT), software cyber-physical and stem-cell applications(Scholz, 2015).

For instance, progress in technology had brought forth modern adaptives like Segway that some disabled persons mainly in developed countries, used as mobility devices, including many veterans injured while serving in the military. It was envisaged that in future sophisticated devices would definitely be designed giving more movement (mobility) choices for disabled persons(US Department of Justice, 2014).The Ipad, computer and Braille were the frequently used assistive technologies in Kenya. In the learning and teaching process the Ipad was not popular among teachers and students. The Braille machine was the most popular, second was the computer. In the learning and teaching process, large print devices, optical and non -optical were displayed (Oira, 2016).

Achieng (2015) observed that in majority of the schools for the visually impaired in Kisumu County, adaptive technology was used, in that most of the visually impaired students largely relied on the use of Braille and Mirror Magnifiers. Nevertheless, the assistive technologies were considered obsolete. The study locale had not been penetrated into by the modern technologies; consequently, the majority of the visually impaired students hardly benefitted from the advantages inherent in these technologies. Almost all SNE teachers interviewed were in agreement that the use of current assistive technologies by blind students was a paramount requirement for promoting learning independent study and active learner teacher interaction that was a precondition for quality academic performance (Achieng, 2015).

Ahmad accounts that countless assistive technologies that had been created and many more continue being created (Ahmad, 2015). The boundary between the general digital technologies such as Ipads and assistive technologies was becoming blurred, Ahmad

(2015). He stated ten justifications why technologies should be utilized in institutions. They comprised capacitating teachers to individualize instructions, which gave students the opportunity to experience and grow at their own pace in non-menacing environments. In addition, the necessity for students to be competent at obtaining and assessing, acquiring and passing information, enhancing the amount and the calibre of students reasoning was considered fundamental. Writing using word processors, enhancing student objective analysis and evaluation of issues, also permitting them to organize, analyze, interpret, develop and evaluate their work. The study proposed giving support to student's artistic expression; assisting students to get resources from outside the school and getting new and exciting learning experiences to them.

It has become of paramount importance in the student lives to generate openings or vacancies for students to do worthwhile work and expand their productivity and efficiency. In this view therefore, teachers are duty bound to assimilate the good use of the current technologies and further improve constructive teaching resources. Ahmad (2015) advanced further that the student population changes of those with special needs and those with disabilities and language issues, which had been witnessed in institutions a few years ago, had a profound effect in altering learner's objectives, instructions strategies plus the instruments used in the assessments of the entire student population (Ahmad, 2015).

Booneand Higgins (2007) also advanced those assistive technologies (AT). They noted that the instruments could lessen learner'sseparation, indeed enabling those turns into usual classroom learners. Consequently adaptive technologies turned into instruments of giving means to persons living with difficult physical, emotional or intellectual

circumstances to actually engage in learning activities (Lange, McPhillips, Mulhern & Wylie, 2006), Ahmad (2015) persisted that assistive technology was usually talked about as per advancement of design level such as High-tech, medium-tech or low-level-tech. A low-level-tech assistive device or technology choice was usually not difficult to use, it was cheap and usually did not require the use of power. The device that was high-tech was normally complex; programmable and in most cases comprised things that needed programming, transistors and microchips to get things done. An application device could have from a sound input words processing capacity (high-tech) to adapting pencil gripper used by a student (low-tech) to help in the skill of writing (ATEN, 2002). The other side of adaptive devices spotlighted on the standards, or rankings in using adaptive technologies individually; in self- capacity building, or in instructing learners as was required (Judd-wall, 1999). From the three levels the suitable one to the non-professional lecturer would be the instructional level required. The individually required standard (level) was about the adaptive technologies intended for utilization personally by a learner, in addition the recommendations and evaluations regarding the same were usually made by experts alone (Ahmad, 2015).

Following the literary work of Borg et al. (2015) accessing adaptive technologies was necessary for disabled individuals in order to enable them to engage maximally in social, economic, and communal life of their society. It was approximated that there were over 150 million disabled children globally under the age of 18 years. These children were frequently faced with many problems thus impeding their entitlement of academic, social and community engagement and were discriminated and socially excluded as per their ages, gender, social standing, language, ethnicity, religious

affiliation and occupied environments (Borg et al., 2015). Disabled individuals should be ensured about the accessibility of many secure, dependable and pocket friendly adaptive technologies that satisfy their personal requirement (Gordon, et al, 2007).

When disabled children are offered opportunities and nurtured positively like any other children, they get the potential to leading and satisfying lives to contributing to social, cultural and economic vitality of their communities yet living and growing could be particularly cumbersome and uneasy for disabled children. Most often they are exclusively kept alone and cut off from education, health, social services and with little chances to engage in family and community service.This often influenced their future employment chances and engagement in public life (Borg et al., 2015).

In a report released by ARCH, it was mandatory for the state of Canada to cooperate with regional and territorial administrations to bring about firm and thorough fiscal plans that enabled the availability of standard adaptive technologies to everyone who required them. This Endeavour had to be sensitive to all sections of the disabled persons in the community (Gordon et al., 2007).The report focused on how the issue of regulations of assistive technologies was important since the adaptive industry was dynamic and there was a looming danger of machinery and devices being designed and controlled in such a manner that could inflame making disabled people insignificant. The report noted that technological advancement, if created in such a manner as to achieve the desired objectives from the beginning, with all the global design requirements adhered to; they would have the capability of enhancing the engagement of disabled individuals in many ways of their existence (Gordon et al., 2007). Consequently, there are standards that must be adhered to by the industry designing assistive technologies, which include standards from such organization as Canadian Standards Association, Standards Council of Canada, International Organization for Standardization and the International Electro-technical Commission and the Ontario

Electrical Safety Code among others (Gordon et al., 2007).

The report focused on how issues of regulation of assistive technologies is important in that the assistive technologies industry is revolutionizing very fast indicating that there is an impending dander of technologies being advanced and regulated in a Mannes that could further marginalization of disabled persons. Access to assistive technologies is one channel of making disabled children succeed in their endeavors. In the context of numerous children, Assistive technologies indicate the variance between enjoyment of their individual rights and the deprivation of them. Never the less, according to the community based rehabilitation centre (CBR) guidelines health component indicated that in many low-income countries only 5-15% of those who need assistive technology are able to obtain it (WHO, 2010). Studies recently done on living standards of disabled people in Southern African countries indicated that only 15-20% of disabled individuals, who required assistive devices had access to them (Eide &Onderut, 2009).It was a challenge across the world to access appropriate assistive technologies. Additionally, many more challenges were encountered in the Low and middle income countries (LMICs).

The situation should be urgently addressed to enhance access to adaptive technologies; the entire associated shareholders needed to perpetuate a superior level of commitment to becoming fully aware of the mandate of the convention on the rights of persons with disabilities to enhance national programs plans and policies for the supply of adaptive technologies. The shareholders comprise governments, united nations- (UN) agencies, development corporations, disabled persons establishments, service providers, academic institutions, the private sector, communities and disabled children and their

families.Borg et al. (2015), proposed a number of suggestions and actions ensuring that each disabled child had access to standard adaptive technologies so as to thrive and begin to become functional members of the society. The recommendations included: estimating requirements and mapping resources, adopting legislation, policies and strategies providing funding and increasing affordability, mounting up assistive devices, service, supply systems, ensuring provision of standard assistive products, training manpower and establishing collaborations adequacy of assistive technologies.

Studies in various African countries were carried out regarding the living standards of disabled persons between 2001 and 2006. The countries included Malawi, Zimbabwe, Zambia and Namibia. In all the four countries that the study was done, the only sector that attained 50% of detailed requirements for disabled persons was health care. The results showed unbelievable disregard in terms of provision of services for disabled persons; who had unmet requirements especially soaring in welfare; adaptive technologies, training, technical education and psychological services (Jones, 2004).

In conclusion,we can say no matter what, research study usually inclines to move in the direction of useful evaluation of the well-being and capacity of ATS for everybody. At would most unlikely even be, the only panacea for individual care, despite being an important addition to what we might already have. In any case any devices that adds to person’s welfare and assists their freedom adds to their entitlement and comprise a big saving as opposed to their supportive choices(Thompson, Fisher &Kayess, 2013). People with disabilities have an open and optimistic attitude towards new and emerging technologies. However, future research should focus not only on the technical development as such, but rather on a sound implementation, social embedding and

evaluation of technological solutions which already exist, and this is the reason for the current study.

2.9 School Board of Management Support on Implementation of IE

2.9.1 Overview of Board of Management

The boards of managements' (BOM) are legally mandated by the Ministry of education under the education Act 2013 to manage secondary schools in Kenya. In the management of education in Kenya, at primary school level, School Management Committees (SMCs) and Parents Teachers Associations(PTAs) are responsible for their respective schools while secondary schools, middle level colleges and Technical Industrial Vocational and Entrepreneurship Training (TIVET). Institutions are managed by board of managements (BOMs) and the universities by councils.The education Act 2013 of the Law of Kenya section 56 (Republic of Kenya,2013) indicates that the Cabinet Secretary appoints members of the board of managements through the County Board Members. The County Board persons representing local community, one nominated by the County Education Board, one representative of teaching staff, three representatives of the sponsors, one representative of the special interest group and one representative of the persons with special needs. Once members select the chairperson of the board and co-opt 3 other persons from the PTA into the board Opot(2006),it is this team of 14 members which oversees the running of Kenyan secondary schools.

Appointments of members of the Board Of Managements(BOMs) in Kenya, asin other parts of the world such as the United Kingdom, is obvious with some purposely elected as channel for varied interests and hence such boards lack power and important interest bypass it as pointed out by Kogan (1984 cited by Chabari, 2007). The inquiry of Koech Report (Mkongo, 2013), pointed out that the management of educational institutions in

Kenya was found to be weak because most board of managements lacked quality management capabilities. This sometimes led to poor performance in the Kenya Certificate of Secondary Education (KCSE).

Astudy done by Isherwood and Osgood(1996) in Canada on administrative effectiveness of Board of Managements in political environment and in particular how the Board of Managements chairman defined effective school operation, the result of thisstudy depicted some characteristics of effective school board chairman. A chairman pointed out that he became effective and influential because helistened to the concerns of other BOM members and other stakeholders. Also, ability to control the board or being in authority, ability to foresee solutions and problem making sure BOM members are informed on what is going on, learning to use the school administration effectively and representing the BOM with the public and the media was a sign of effective management (Isherwood &Osgood, 1996).

Kabiaru (2013) indicated that, the school management committee in Kenya is the legaltrustee of the school. This is affirmed by the education Act No 14 of 2013, article 55 which establishes the Board of Management forevery public pre-primary institution and primary school as one the most critical Structures of governance and management ineducation. According to article No. 59 of the Act, 59, the functions of the Board of Management of abasic education institution shall be among others, promote the best interests of the institution andensure its development, promote quality education for all pupils in accordance with the standards set under this Act or any other written law, ensure and assure the provision of proper and adequate physical facilities for the institution, promote the spirit of cohesion, integration, peace, tolerance, inclusion,

elimination of hate speech,and elimination of tribalism at the institution. According to Kabiaru (2013), owing to these functions, the school management committee, now called school management board holds important functions that are crucial towards the support of IE. In his study Kabiaru (2013), indicated thatthe school management committee's role ofprocurement of teaching and learning resources was positively impacting on the implementation of inclusive education. The areas of support that Kabiaru (2013), identified included School management committee's role of procurement of the needs of IE, mobilization of school funds to cater for teaching and learning resources needed for IE, mobilization of parents and acting as a communication channels.According to Ford (2013), improving school board governance is a legitimate approach to improving academic achievement. Ford (2013) adds that the school board must provide students an education that prepares them to be productive adults, and do so in an efficient manner. In this regard therefore, the BOM members can support the school by availing themselves to be improved through training and capacitation so that in the long run, they are able to provide quality education efficiently. According to Abebe (2012) another area of support that the school management board can give support towards implementation of IE is school level decision making. Abebe (2012) indicated that one of the advantages of involving communities in school decision-making is that it creates a greater sense of ownership, morale and commitment among the stakeholders. On the other hand, Zwane and Malale (2018) observe that teachers' incompetence in identifying learners facing learning challenges in their classrooms is one of the barriers to inclusivity. This is a common problem across board. By extension, this means that in terms of support, the board of management need to continually capacitate teachers through in-service training so that they are competent, not only to

identify needs for challenged learners in inclusive settings, but also to have the pedagogy. Therefore, another area on support is on the human resource development.

According to Muthengi (2015), another role of the BOM is managing human resource. In this instance, the BOM may provide support to the school by ensuring that the human resource in the school is well managed so that the primary goal is met. In practice, human resource management may encompass making the decision to recruitment, capacity build and providing social and emotional support including enforcing discipline and resolving disputes.Ong'enge (2016) identifies the roles of the Board of Management to include being in charge of classroom construction, recruitment of teaching staff, discipline of students and staff remuneration, disciplinary of students, staff remuneration and providing morale to the teachers. Therefore, the areas in which the BOM can support the school include recruitment of teaching staff, disciplining students and motivation teachers by way of incentive. Ong'enge (2016) found that incentives used by BOM as a strategy to influence students' performance had positive outcomes. In addition, rewarding of the good discipline can as well be used by BOM as a strategy for student's academic performance. Provision of teaching/learning resources was also approved by a majority of the teachers and BOM members as strategy that can be used by BOM to influence teachers' job performance. The study recommended that BOMs should improve on students' academic performance.

In another study, Ogola (2016) identifies the roles of the BOMs to include motivation, provision of physical facilities, and budget administration. Therefore, the areaof support which the BOM may do include giving monetary incentives to the staff, ensuring provision of adequate physical facilities, and giving priority during administering of

budgets.

According to Opande (2013),BOMcoordinated and supervised the provision of necessary learning materials like text books, furniture and classrooms. Okitsu (2011) indicated that accountability by the School Management Committees impact on pupils' academic achievement and as such is an area in which the BOM can stamp its support to the school. According to Okitsu (2011) accountability component encompasses a detailed examination of what activities were done i.e. an account of steps undertaken to fulfil tasks.

According to Kabiaru (2013), the role of the School Management Committee (SMC) is mobilizing the parents and community on supporting implementation of inclusive education. Kabiaru (2013) indicates that the ways in which the SMC in the school mobilize the parents for supporting implementation of inclusive education included assessment of learners with SNE was one of the methods used by the SMC tomobilize the parents to participate in implementation of inclusive education. Otherpopular methods used include the involvement of social workers (80%), sourcing resources from the community (48%) and checking on pupil's welfare (80%). The findings agree with those of Ngugi (2002) which emphasized collaboration factors involving parental and community involvement, partnership and networking with professionals for implementation of inclusive education.

The teachers indicate that, the methods used by the SMC to mobilize the parents for supporting implementation of inclusive education sourcing community resources, assessment of learners with SNE together with organizing fundraising respectively were some of the methods used by the SMC to mobilize the parents to participate in

supporting implementation of inclusive education. Other methods used by the SMC included checking on pupils welfare and involvement of social workers in assisting learners with SNE. The results collaborated with those of Ngugi (2002) who stated that consultation factors such as parental involvement, community involvement, partnership and networking plus interactive relationships should be effected for inclusive education. On the other, hand, the pupils indicated that, the methods used by the SMC to mobilize the parents for implementation of inclusive education included organizing fundraising and checking on the pupil's welfare respectively were some of the methods used by the SMC to mobilize the parents to participate in implementation of inclusive education. Other methods used by the SMC included involving social workers (71%) and sourcing resources from the community forlearners with SNE (29%). When parents and the community are involved in implementation of inclusive education, they are able to own the programs carried out in schools for learners with special needs in education. They therefore become positive on issues of inclusive education hence offer maximum support to enhance implementation of inclusive education.

The British reform Act of 1988 gave way to great devolution of power to individual governing bodies. The school managements play a great role in formulating all policies in schools and left the day to day administration of every school to the head-teacher. The general responsibilities of school governors in Britain include; the establishment of the educational needs and priorities of the school, allocation of funds, monitoring of impact of decision taken and evaluation of the effectiveness of the programmes undertaken (Cave& Wilkinson, 1990).

The Ireland education Act of 1988 established the BOM whose functions include

managing the school on behalf of the patron in a manner that provides all of its pupils with the best possible education, formulate, ratify implement and review school policies such as the Child Protection Procedures for Primary and Post Primary Schools, Code of Behaviour or Anti-Bullying Policy, Management of Resources, School Leadership, School strategic Planning, Self-Evaluation in Teaching and Learning, Training and capacitating the members of the Board of Management. In this regard, in playing these roles the BOM may support the school by formulating good policies, ensuring prudent management of resources, providing good leadership, developing a practical strategic plan, regularly carrying out self-assessment of teaching and learning and ensuring they avail themselves for Training and capacitation.

The Kenyan Basic education Act of 2014, also gives the BOM other roles under the auspices of having the best interest of the school. Nzoka (2014) established that, the BOM endeavoured to improve students' performance by ensuring that they conduct monitoring of instructional processes and student assessment and guidance and counselling programs; subsidizing Government funding through free day secondary education using income generating activities. Thus, another area of support to be offered to schools by its BOM is ensuring that programmes, such as guidance and counselling that looks into the welfare of the students and ensuring academic standards are met. To effectively implement such programmes, funds ought to be availed. Moreover, because government funding is sometimes limited (Zwane& Malale, 2018), income generating activities need to be established by the BOM besides mobilising funds through collection of fees.

Khadija (2016) adds that, the Board of Managements (BOM) was legally mandated by

the Ministry of Education under the Education Act Cap 211 to manage secondary schools in Kenya (Republic of Kenya, 1980). At the time of publishing these results, the roles and responsibilities of BOM were very clear, part of which is being responsible for the management of school's resources. The BOM is also charged with the responsibility of appointing non-teaching staff on terms and conditions of service approved by the minister to manage all moveable and immovable property, funds, donations, grants among others (Waweru, 2005). In this regard, the Government policy on the Board of selection is that, the people chosen should be competent, committed, educated (at least form four level). The chairman of the Board has to be a University graduate and also experienced so as to manage the schools effectively (Ministry of Education, 2008).

Ford (2013) indicated that the basic purpose of public education is relatively simple; provide students an education that prepares them to be productive adults, and do so in an efficient manner. Therefore, the school board (BOM) must do everything within the law to ensure that this objective is met. Ford's (2013) findings also showed that the way a school board governs does affect district level performance. Specifically, the schools that engage in strategic planning, view their superintendent as a collaborator, and mitigate conflict, perform better on academic outcome indicators. Therefore, according to Ford (2013), Boardman ship and how an individual member of the board conducts him/her self towards managing the school is critical. In addition, Ford (2013) posits that the traditional school boards can and do influence academic outcomes, meaning, improving school board governance is a legitimate approach to improving academic achievement. Towards this end, therefore there are a myriad of ways in which board members can support the school to meet the primary objective. According to Ford

(2013), the school board roles and tasks are different, and one way of understanding the tasks of school boards is to look at it from a view that the tasks forms a specific to broad continuum, and will and should vary across different school boards. Together, the tasks performed by boards can be described as a single task of governance; or, the public administration of a school district. In this regard any activity performed by the board, and geared towards student achievement in tandem with state laws may be deemed as supporting the school towards this end.

According to King'oina, Ngaruiya and Mobegi (2017) and basing on the Republic of Kenya's Basic Education Act No. 14 of 2013, the board of management ought to perform such roles as student disciplinary, guidance and counselling, instilling a culture of dialogue, resource mobilization and provision of facilities and democratic governance in schools. Therefore, the supporting tasks towards this end, is what comprise the support of the BOM.Lorentzen (2013) reminds the roles of the school boards in the United States that they are expected to determine policies, select experts, manage the budget, levy taxes, select school sites, and generally act as a legislative body while turning over the executive functions to a professional superintendent and staff. In this instance, any task that is geared towards this end is considered a support of the board members to the school. Lorentzen (2013) adds that, stakeholders in school must admit that facts now exist that could explicate enlightened boardsmanship, and provide the foundation for district progress and improved student achievement. Decisions that are made at local level are arguably more responsive to specific issues related to school contexts (Dunne et al. 2007, p. 20).

An important achievement has been observed in SouthAfrica in this regard, since

school-based governance is often integrated with participatory decision-making (Naidoo, 2005) in which decentralization has been enhanced. Another advantage is that decentralization empowers communities to mobilise resources (Dunne et al., 2007). In Ghana, for example, decentralisation helped to enhance the efficiency of school management and accountability (Dunne et al., 2007). Third, decentralization motivates parents to show greater interest in their children's education. In some cases, the functioning of local education offices was financed by communities (Dunne et al., 2007, p. 11). According to De Grauwe et al. (2011), the involvement of parents, teachers, local councillors and education officials in school management can help to promote decision-making at school level, which improves the quality of schooling and students' achievement. However, the implementation of decision-making through the full participation of parents and communities entails challenges. When compared with teachers and headteachers, community groups do not focus on education matters and this often creates conflict (Naidoo, 2005).

The literature has identified the many roles of the BOM. These roles may be summarized into three main roles; School management committee's role of procurement of teaching and learning resources; mobilization of school funds forimprovement of physical facilities; establishment of proper communication channels to teachers and parents and establishing proper communication channels to teachers and parents. The above summary is discussed in the following section.

2.9.2 School Board of Management'sRole of Procurement of Teaching and Learning Resources

The school management committees are supposed to procure the instructional materials needed with full involvement of the parents, selection of the relevant titles/items and

booksellers' financial management and banking issues. Generally, there is lack of the necessary capacities and skills in SMCs to provide the requisite management support and assistance to schools in terms of procurement of teaching and learning resources. Strengthening the governance framework in school management committees will results in a more efficient procurement of school resources, and is a necessary step to improving the delivery of quality education. The Ministry of Education should introduce stronger accountability norms. Specifically, clearer and more robust rules for keeping school records are needed, coupled with more frequent inspections to ensure that these rules are respected. The Ministry of Education and civil society must invest firstly in training to ensure school managers and parents have the capacity to understand the school procurement policy to administer and oversee budgets, and secondly in public awareness campaigns to educate parents about their rights(MoEST, 2005).

Despite many years of efforts to increase school enrolment through the Education forAll initiative and the Millennium Development Goals, deficient or non-existent governance systems and practices are limiting progress. School procurement is not transparent and external inspections are conducted infrequently. The roles and responsibilities of decentralized authorities managing schools are often unclear(UNESCO, 2005).The school management committee in Kenya is the legal trustee of the school. Its functions and responsibilities as far as procurement is concerned are spelt out in the Education Act (1980). The SMC consists of eight parents, two members of the District Education Board (which is the local education authority) and three members of the school sponsor (which commonly is the church that started the school). The SMC members serve for a minimum period of one year and a maximum of eight years as stated in the Education

Act (Republic of Kenya, 1999). According to Eshiwani (1993), the school management committees' functions include the preparation of initial proposals for the schools development, the reception and administration of funds collected for or granted to the school, tendering advice to the District Education Board and the local authority education committee, provision of physical facilities required by school and ensuring that discipline is maintained in the school.

2.9.2.1 Management of Teachingand Learning Materials for BetterAcademic Achievement

The Government of Kenya through the Ministry of Education (MOE) strategic plan for 2006-2011 tried to allocate resources meaningfully so as to improve efficiency in resource allocation and hence quality education for Kenyans (Republic of Kenya, 2006-2011). The success of a school depends on how effectively resources are managed and utilized (Republic of Kenya, 2011). Educational resources such as physical, learning and teaching materials have been seen to be of crucial importance in determining the quality of a school, especially as judged by achievement of students in national examinations (Chelimo, 2010). The BOM are responsible for the management of such resources so as to facilitate smooth operations in the schools for better academic achievement. Ngigi (2007) found that insufficient teaching andlearning materials and deficiency in their management led to poor performance in examinations. According to Kenya Education Staff Institute (KESI),the BOM should ensure that up to date inventories are kept and someone responsible for the same as this will ensure achievement of academicgoals (Republic of Kenya, 2011).

2.9.3 School Board of Management'sRole of Mobilization of School Funds for Improvement of Physical Facilities

According to the MOEST (2003) the SMC decides how government funds should be used, monitors the curriculum and play a role in long-term development. They monitor school projects, participate in budgeting and procurement activities and ensure transparency in school fund use. They also liaise with parents if the government funds received by the school are inadequate. In this way, parents are made to feel part of the development process and are motivated to contribute funds when government funds are inadequate. They manage the school and give the goahead on the use of Free Primary Education (FPE) funds. They also deal with issues of school development. Schools are required to ensure that their SMC's are actively involved in defining the school's annual spending priorities and procurement plans. The SMC should collaborate with local administrators to play major roles inmaking schools more responsive to learners with SNE. They should provide learners with aids and support services such as Braillers, wheelchairs and hearing aids (Ngugi, 2002). The SMC should also adapt school facilities to make them responsive to learners with SNE, for example construction of ramps and widening entrances to buildings (Ayondele, 2011).

2.9.4 School Board of Management'sRole of Mobilizationof Parents andCommunity to Support Inclusive Education

Since the basic education system is now inclusive, the role of the school management committee is to advise the school head teacher, who the secretary to the BOMis on matters affecting the general development of the school and the welfare of the pupils, the collection and accounting for all funds accruing to the school and the procurement and provision of facilities such as buildings, furniture and equipment from the funds

collected. According to Kimu (2012) access to quality education in Kenya has for a long time been inhibited by poor planning skills of SMCs (BOM). Without reasonable planningpriorities, inclusive education is not possible, thus the SMC should strive to prioritize improvement of physical aspects such as inaccessible classrooms to students in a wheelchair, overcrowded classrooms, provision of materials such as Braille and large print (Trainer, 1991).The Government of Kenya in partnership with communities, Development Partners, Churches, Non-Governmental Organizations (NGOs) and individuals has made huge investments in the infrastructure sub sector. Under the KESSP initiatives, funds were disbursement directly to primary schools for refurbishment of existing infrastructure, construction of new classrooms, toilets, administration blocks, and kitchens, provision of water and sanitation facilities as well asconstruction of new primary schools. Despite the huge investments in infrastructure provision, the capacity of the school management committees to undertake prudent school stewardship remains suspect.

2.9.5 The Board of Management'sRole of Establishing Proper Communication Channelsbetween Teachers and Parents

As the leading management organ in the school, the SMC should providedirection and clear channels of communication for optimal interactions in the school. In order to support teachers and other staff, they should ensure there are appropriate communication policies and procedures in place, and ensure all the parties are working in harmonious good relationships fostered within the whole school community. Success in the management of the school depends on the ability of the SMC to rally the need for keeping open communication channels.

The quality of leadership makes the difference between the success and failure of a

school (Kapen, 2011). He further explained that research and inspection clarifythe extent to which the quality of leadership is crucial to improvement. In highly effective schools, it is the SMC who sets the pace, leading and motivating pupils and staff to perform to their highest potential. Schools can make a difference to students' achievement and SMC's communication of school activities to other stakeholders is one of the factors which contribute to success or failure (Grauwe, 2007). Ensuring effective accountability of teachers and school managers to parents and communities has become a major policy objective in recent years. This is to be achieved through improved school communication with School Management Committees expected to play a major role in all aspects of school management, including the utilization of effective communication channels to deal with teachers' issues. However, progress to date with respect to school governance is limited, mainly because SMCs tend to be mainly concerned with improvements to school facilities and know very little about the power of effective communication in the teaching process (Kimu, 2012).

Some SMCs feel it improper to 'waste' scarce resources on learners with special needswhile 'normal' ones do not have enough, hence unsupportive to inclusion of such learners in the mainstream school. Support is required from the SMCs to finance the adaptation and communication of the school teaching and learning objectives to the stakeholders for learners with SNE to be accommodated in the class or school(Ngugi, 2002). According to Grauwe (2007), the SMC is the pivot around which many aspects of the school communication network revolve, and the body in charge of every detail of the running of the school, be it academic or administrative. The results indicate that majority of the pupils (93%) and (73%) stated thatorganizing fundraising and checking

on the pupil's welfare respectively were some of the methods used by the SMC to mobilize the parents to participate in implementation of inclusive education. Other methods used by the SMC included involving social workers (71%) and sourcing resources from the community forlearners with SNE (29%). When parents and the community are involved in implementation of inclusive education, they are able to own the programs carried out in schools for learners with special needs in education. They therefore become positive on issues of inclusive education hence offer maximum support to enhance implementation of inclusive education.

Perhaps another perspective of understanding the role of the BOM is looking at it from the view of the challenges they face. According to Mahlo (2012), the BOM should be stead fact in supporting the human resource, i.e. often, BOM lag behind in supporting teachers.In this regard, support can be defined as all activities that increase the capacity of a school to respond to diversity (Mahlo, 2012). Calitz (2000) indicates that, a supportive environment where there is collaboration among teachers, district officials, principals, parents and learner support for teachers is crucial for successful implementation of inclusive education. Support may involve a group of colleagues who are available to assist learners experiencing barriers to learning; therefore, educational support services need to be organised and the roles of all players in the implementation of inclusive education clearly defined (Calitz, 2000).

According to Pijl and Meier (1997), inclusive education canonly be successful if teachers elicit an attitude acceptable to all learners and when they have sufficient support and resources to teach all learners. Teachers in the kingdom of Swaziland are to a large extent lacking this support as the Ministry of Education and Training has only

recently established structures for teacher support. For instance, a bachelor's degree in inclusive education was introduced at the Southern Africa Nazarene University in the year 2012 as well as inclusive education courses in the other teacher training colleges. Whilst this was a positive step towards capacity building, a large number of teachers who are already in the field still feel they lack the skill and the tools to teach learners with diverse needs because most of them never received training in inclusive education, whilst capacity-building workshops have not been able to reach a majority of teachers in the field.

According to Fakudze (2012), lack of support for teachers ischaracterized by lack of state funding for inclusive education programmes and provision of in-service training for teachers that can empower them and so lead to a change in their attitudes towards inclusive education. Fakudze (2012) further argues that teachers upgrade themselves at their own expense on a part-time basis. Moreover, government does not reward teachers' achievements through properly remunerating them after obtaining appropriate qualifications. In addition, the Ministry of Education and Training has failed to provide schools with specialists in areas such as braille, hearing specialists and learning difficulty specialists to mainstream inclusive schools. In a study conducted by Mahlo (2012) in Gauteng Province in South Africa, interviews revealed that the school-based support teams (SBST) lacked the knowledge and skills to assist learners and teachers and yet empowering the SBSTs could be one strategy to enhance the implementation of inclusive education.

2.9.6 Roles of the BOM and Challenges Faced in Resource Management

The Board of Managements (BOM) is legally mandated by the Ministry of Education

under the Education Act Cap 211 to manage secondary schools in Kenya (Republic of Kenya, 1980). Currently their roles and responsibilities are very clear part of who is being responsible for the management of schools' resources. The BOM is also charged with the responsibility ofappointing non-teaching staff on terms and conditions of service approved by the minister to manage all moveable and immovable property, funds, donations, grants among others (Waweru, 2005). The Government policy on the selection of the Board, the people chosen should be competent, committed, educated (at least form four level). The chairman of the Board hasto be a University graduate and also experienced so as to manage the schoolseffectively (Ministry of Education, 2008).

As the Board members perform their roles, some challenges hinder them andthey end up performing their roles in an ineffective manner thus failing toadequately make the expected achievements especially in performance (Ministry of Education, 2008). Challenges encountered are; inadequate academic and professional qualifications, corrupt members who interfere with the procurement of goods and services in the schools. Inadequacy on knowledge of regulations and roles of the Board members, with such challenges the Board members would find it very challenging to manage resources in their respective schools and this would greatly impact on academic achievement.

Smoley (1999) did a study on the effectiveness of school boards in the State of Delaware (USA). The objective of the study was to find out the effectiveness of the school board in performing their roles. The findings were that the board members were ineffective in decision making since they could not make use of the relevantfacilities/resources. They also did not attend meetings hence no quorum. It was the feeling of the Board members that they would be more effective in the decision

making if they acted within their mandated roles, take initiative, overrule the superintendent's decision making and resist undue political pressure.

Van Wyk (2001) carried a research to investigate the factors influencing the implementation of governing bodies in Post-Apartheid South Africa. Thestudy was to identify the reasons for efficient and effective function of Board of Management. The research used survey research design and targeted the population of parents, teachers and school principals in South Africa. Purposive sampling was used to identify the subjects to be included in the sample. Data was gathered by interviewing parents, teachers and principals. Documents received in the study included policy documents of the central government dealing with the management of education, training manuals forgovernment bodies, statistics dealing with schools resources, reports dealing with economic and social variables of different communities (Van Wyk, 2001).

Van Wyk's (2001) study revealed that while privileged and well-resourced school exist, the vast majority of children continue to be educated in conditions of extreme neglect. The study also showed that 37% of the members of governing bodies were illiterate. This impacted negatively on decision making. It was also revealed from the study that governing body's performance was greatly undermined by lack of adequate training of board members. Consequently, the study reported that skills in general management and making informed judgment was wanting. Parents and teachers interviewed in the study indicated that policy documents and other directives from the Education department were kept in the Principal's office and not accessible. This was compounded by the fact that most of these documents were not written in a language that was fully understood by an ordinary board member.

2.9.7 Board of Managements' Financial Management

Management is an important process of coordinating and integrating specialized activities of several persons for the achievement of common objectives (Onderi & Makori, 2013). Onderi and Makori (2013) further say it is also the process through which resources are organized and utilized to attain maximum output and efficiency through minimum input. Eshiwani (cited in Chelimo, 2007) observes that the level of material inputs allocated to schools per student and the level of efficiency with which a fixed amount of material inputs are organized and managed does raise students achievement. There is a need for the Board of Managements (BOM) in institutions to strengthen planning and managing of resources. This will ensure efficiency and effectiveness (Chelimo, 2007). Effective financial resource management on the side of BOM will ensure that the school implements its plans effectively to achieve desired goals. Infrastructural programmes will also not stall before completion, bringing about accountability and hence good governance for better results.

According to Kenya Education Staff Institute (KESI) the members of the Board should carry out a cost/benefit analysis. They should consider whether they are getting the best value for money/resources. The Board should also check on budget control and finally resource control, and the adaptation of existing resources to fit the need. This would in turn bring about good KCSEperformance. As school managers the BOM have the responsibility of planning, allocating and accounting for the funds raised from the various sources. They have both the statutory and ethical obligations to ensure that funds under their disposal are properly accounted for. It is therefore necessary that the BOM has a working knowledge of accounting records and requirements so as to manage financial matters effectively (Republic of Kenya, 2011). The Board of

Managements should be conversant with the school's management systems for example budgeting, the legal framework of budgeting, and components of a school budget and other budgetary controls.

The BOM should also be conversant with the financial records and statements such as trial balances and the school bank accounts which go with signatories of the accounts. This information is also useful to the BOM since it assists them in assessing performance of the school in as far as finances are concerned. For good academic achievement, the Board of Managements should ensure proper procurement procedures are followed in schools. Since the year 2008 when Free Secondary Education Programme was launched, there have been significant changes in the flow of public funds from the government to public institutions.The government has put in place several guidelines to safeguard usage of thesefunds in secondary schools. Despite such efforts most schools continue to mismanage or misappropriate these funds (Republic of Kenya, 2011). Some of these anomalies are due to the ignorance of most of the Board members in schools.The table above shows clearly that the Kenyan government attaches a lot of importance to school resources. Despite the provision of these resources to some schools in Uasin Gishu County, performance is still poor.

2.9.8 Studies Done on Board of Management's Resource Management in Kenya

Katumbi (2006) found that most of the Board members had poor education background, most members had served in more than three boards and that some members were not genuine in dealing with issues, though they assist in fund raisings and budget preparations. Instruments used in the study were questionnaires for Board members and interview schedule for principals. Five principals and twenty BOM members were

chosen for the study.Ngigi (2007) focused on resource management, decision making and provision of physical facilities, recruitment and teachers' discipline. The study by Ngigi targeted all public schools in Londiani Division, consisting of 17 public school 68 BOM and 17 Parent Teacher Association (PTA) chairpersons. The Area Education Officer (AEO) and District education Officer (DEO) Kericho were interviewed. The findings were that, the board members lacked financial capabilities, where funds are not properly managed. The study also found that there was insufficient teaching and learning materials, shortage of teaching facilities and deficient school management and supervision which accumulates to poor performance in exams. Ngigi (2007)also pointed out that on management, there was need to focus on resource management linking budgets to school developments plans.

Elsewhere, Mutai (2003) did a study in Bureti District to establish effectiveness of BOM in management of schools. The purpose of the study was to determine the extent to which the board members participated in resource management and provision of facilities in schools and theextent to which BOM were involved in the decision making process. The study revealed that the respondents perceived BOM as effective in resourcemanagement and ineffective in decision making.The emphasis according to Rono (1990) was the fact that any school aiming at high academic achievement must have not only well qualified teachers but also adequate facilities. On results of delaying essential facilities, Mbiti (1980) observed that when school equipment supplies are delayed, teachers cannot be expected to do their work properly. Poor teaching will lead to poor performance by the pupils in public examinations. He continued to assert that poor administrative procedures in supplying equipment would result in poor quality

work. The BOMs therefore shoulders the burden of ensuring that the school is well equipped with the necessary materials for the well-being of the program of their instructions. This is a critical area of support as well that the Board of Management can exercise.According to the findings, it is unfortunate that the provision of physical facilities in primary schools remains far below the expected level. Free and compulsory primary education has increased the enrolment and has brought about lack of adequate classrooms, which has become a major constraint.

Eshiwani cited in Chelimo (2007) depicted an overwhelmingdemand for more learning facilities especially in arid and semi-arid areas and in urban slums. Several studies have revealed that lack of adequate material and physical facilities like text books, classrooms, laboratories, libraries and workshops pose the greatest challenge to the managers in achieving institutional goals and objectives. Further, Chelimo (2010) noted that regional disparity and lack of text books as some of factors contributing to poor performance in some schools.

Mumo (2004) reported that most institutional heads interviewed by Themanie(2006), Gichuri (2003), Wachira (1998), and Rono (1990), among others agreed that it had been quite difficult not only to procure essential facilities but also to maintain and repair existing ones. Lack of adequate funds was cited as the cause for this deficiency, Mumo (2004) wrote in his findings. In Kenya, head teachers who often serve as the secretary to the board of Management, play an important role in the process of providing educational facilities in schools. The weekly Review (February 22nd 1991) indicated that the process of providing physical facilities in Kenyan schools had not been easy more so especially with the introduction of the 8:4:4 education system, which has many

demands in case of the required physical facilities. In relation to the demands raised by this system, the Standard Newspaper of October, 8th 1991, cited criticisms voiced by many people who had argued that the 8:4:4 curriculum had posed a great financial burden to parents and had made some schools, both primary and secondary not to teach certain areas of the curriculum due to lack of facilities. Kindiki (2009) observed that head teachers experienced acute administrative problems as a result of limited physical facilities in their school, which adversely affected the effectiveness of instructional programs in the school.

Okendu (2012) findings agreed with Kindiki (2009), who pointed out that the schools with adequate physical and material resources performed better in national examinations than those which lacked them. Hence school managers should ensure that they offer adequate facilities.Studies done on performance reflect that among the factors that led to poor performance in schools, lack of facilities ranked high.It is quite imperative that if a school is to perform as expected, have sufficient classrooms, laboratories, text books and all the essential stationery should be available. The persistent hunger for education after independence led to the increase in demand for places in the education system. The government of Kenya resolved then that the development of facilities and boarding cost will be the responsibility of local communities and parents (Okendu, 2012). The government realised that if this trend continues unabated, it will pose a management constraint to the exchequer and hence a crisis to the BOMs in their management endeavour. It therefore introduced cost sharing which shifted the cost of education to parents as alluded in the GOK report (cited in Kindiki, 2009) which states; ‘The growing demand for expansion of education and training at all levels and the

corresponding higher costs have made it difficult for the government to finance education entirely from the budgetary provision without adversely affecting other areas of development'. For this reason and in order to maintain the development and expansion of education and training, there was need to sustain and enhance existing partnership between the government, communities, parents, individuals and organisation in financing education and training (Kindiki, 2009).Hence, there was need for the board of management to mobilise the resources required for the school and this is one area of support that this BOM ought to focus their energies.

Waweru (2005) observed that, both the government and communities pursued theexpansion of the basic education system aggressively. The government however, burdened by other concerns, delegated the management anddevelopment of secondary schools to community through BOMs. However, due to economic melt-down, communities rarely came-up with new schools. Rather, they inherited classes from the existing primary schools, and then forced the government to provide teachers and appoint BOMs to manage them. The problem is; the academic, professional and management skills of the BOMs were not emphasised (Waweru, 2005). This has raised concern to the management capabilities of the BOMs members he adds.

2.10Implementation of Inclusive Education

One proposal to accomplish this goal is for special education teachers to work side by side with their general education colleagues in the classroom and deliver a merged system of classrooms. Ideally requires that both teachers collaborate in their planning, instruction, and assessment of all students. The advantages of co-teaching include more opportunities for varied teaching styles, instructional repetition, feedback, and

curriculum adaptations often necessary for students with disabilities (Carnell & Tillery, 2005).Suggestions for Implementing a Co-teaching Module Gately and Gately (2001) describe co-teaching as an evolutionary process, and we have found that description to be apt. As we have gained experience in co-teaching, we have moved from using the co-teaching models that primarily employ independent teaching (one teach/one observe, one teach/one drift, and parallel teaching) to an increasing comfort with team teaching -the most challenging model, which is sometimes described as a dance between two people.

Research (Hattie& Brown, 2010; Kinyua& Odiemo, 2018; Kingston& Nash2011) shows various attempts towards achieving inclusive education. An example of this is Project ACCEPT. Melanie(2014) notes that during the pilot year, participation in Project ACCEPT was voluntary for special, elementary, and secondary education majors. The project consisted of attendance in a 10-hourinstitute prior to the beginning of a semester,enrolment in a designated section of the course Collaborative Teaching in Inclusive Settings (TLSE 456), completion of a field experience in an inclusive classroom, and enhanced instruction in the areas of functional behavioural assessment, instructional accommodations,and assistive technology (for which hands-on experiences were required). Participation in the project was voluntary due to the fact that teacher candidates had to agree to engage in additional activities that required travel to clinical sites and to attend the institute prior to the start of the semester. In addition, during the pilot year, the identified course was not required course for graduation among special educationmajors; they needed to take the course as an elective (Gichuru, 2014).).Each component of the project will be outlined below.

To promote increased competence in the use of instructional accommodations, cohorts practiced matching accommodations to student profiles described in vignettes. Based on the information provided in the vignettes, teacher candidates completed a project involving design of a “universally designed” lesson plan for a diverse classroom of learners. Throughout the course, participants were given instruction on the integration of assistive technologies into classroom environments. Demonstrations of how to use the technologies were presented and interspersed throughout other modules and during lesson plan development. Participants were then required to perform “proficiency checkouts”using a variety of assistive technology devicesand programs (e.g., program an augmentative communication device, operate text-reading software). In addition, enriched experiences in functional behavioural assessment were provided. These included in-class demonstrations and practice completing data collection forms for determining the function of behaviour. The enrichment activities offered in Project ACCEPT supplemented the reading material, lecture, and discussion that occurred in both the experimental and control classes. The structure and content of the Project ACCEPT section of TLSE 456 (the course designator) was, in effect, being field-tested during the initial year of the project. The goal for the 4-year project was to standardize the content for all sections (with a minimum of six sections per semester being offered (Mutua, 2012; Fives& DiDonato-Barnes, 2013).

Results indicatedthat the inclusion of a child into mainstream education is a challenging and dynamic process that starts with the parents’ decision to place their child in a mainstream setting (Shaw, 2017). In spite of legislation and the desires of parents, the development of inclusive educational practises in South Africa does not always reflect

the values of equity and individual rights (Donohue& Bornman, 2014). Failure to establish collaborative and trusting relationships between teachers, parents and professionals poses a major challenge and can have a serious impact on the outcomes of inclusive education Resultsindicated that gaining an understanding of how parents are experts about their children and how this expertise can contribute towards more balanced and effective collaboration and partnerships in inclusive education is important for the successful implementation of inclusive education in South Africa (Gachago, 2018; Adoyo& Odeny, 2015; Janmohamed, 2012).

The way in which the values of equity, individual rights and freedom of choice manifest itself in the practical implementation of inclusive education and the way in which parents experience it requiredfurther attention. In South Africa, parents also became the advocates of the inclusion movement in the 1990s, promoting the placement of their children with disabilities in mainstream schools. A growing recognition, for example among parents whose children with Down Syndrome can make much better progress when brought up in ordinary family, school and community environments instead of in more isolated settings like special schools led to the first placements of learners with disabilities in mainstream schools in 1994 (Belknap et al., 1999; Schoeman, 1997;Schoeman, 2000). Parental involvement in the South African education system had, traditionally, been given little recognition and parents had been excluded in taking an active part in the education of their children (Van der Westhuizen &Mosage, 2001).

Parental involvement, where it existed, was left to issues such as fund-raising. The advocacy role that parents of children with disabilities played in the movement towards inclusive education in South Africa was therefore ground-breaking. It paved the way for

parents to be involved in the decision making process regarding school placement and learning support programmes of their children. Parents' experiences of the inclusion of their children with disabilities into mainstream education indicated that collaboration between different role players including professionals like educational psychologists in the inclusion process is either enhanced or impeded by different perspectives on the rights of parents and their children and the actions and attitudes of professionals towards diversity (Van der Westhuizen & Mosage, 2001).. In the study, the parents of South Africa made cementation as follows:

> Parents, who see it as their right to be involved in their child's education, see themselves as in collaborative partnership with teachers and professionals and take an active role in the schooling process of their children. They participate as far as possible in the adaptation of the curriculum and give clear guidelines in how to deal with their children in the classroom situation. They also set clear expectations for the role of the educator. They insist that teachers inform and guide other children to deal with their children with a disability. Furthermore they expect teachers to take responsibility for teaching their children and identifying problems in time.

Early childhood professionals, policy makers, researchers, and families of young children have worked for more than 30 years to promote high-quality early education for young children in inclusive early childhood programs (cf. Bricker, 1978). Researchers have published extensive information on effective preschool inclusive practices (for reviews, see Buysse& Hollingsworth, 2009; Guralnick, 2005; Odom et al., 1999). Through reauthorizations of the Individuals with Disabilities Education Act in combination with changing societal values that places high importance on opportunities for development and learning and a sense of belonging for all children, early childhood

inclusion has gained widespread legal, moral, and empirical support. However, even with the existing legal, moral, and empirical foundations, early childhood educators face multiple challenges with the implementation of high-quality inclusive early childhood practices.Inclusive early childhood programs are complex social systems with diverse policies, practices, and characteristics (Buysse& Hollingsworth, 2009; Odom et al., 1999). The methods used to implement inclusive programming for young children vary greatly across communities (e.g., Buysse, Skinner, & Grant, 2001; Odom et al., 1999). With respect to the three key features presented by the joint position statement of the DEC and the NAEYC (2009), implementation of even one key feature can substantially vary from one program to another. The degree to which program personnel address the National Association for the Education of Young Children (DEC) and National Association for the Education of Young Children's(NAEYC's) key component of access, for example, can vary on dimensions such as the ratio of children with disabilities to children without developmental delays, the amount of time that children with disabilities spend with peers without developmental delays, and the types of professionals who provide the services (e.g., early childhood education teachers, early childhood special education teachers, physical therapists) (Guralnick, 2005; Odom et al., 1999).

Program personnel may also vary in the way in which they implement the key component of system support. That is, variations from program to program can be seen in the level of support and training provided for practitioners, the degree to which collaboration among family members and professionals is facilitated, the child: teacher ratios provided, the types of adaptations and modifications provided in classrooms, and

the enrolment criteria enacted (e.g., only children with mild or moderate disabilities are eligible for enrolment in some programs (Hanson et al., 2001). Differences in systems support can also be noted in program philosophy and personnel beliefs about inclusion and children with disabilities. Finally, variability in implementation of the key component of participation is noted because children with disabilities who are enrolled in inclusive programs have experiences that differ on the extent to which they are involved in routine classroom activities and participate in the general education curriculum and model used for the provision of related services (e.g., services integrated into existing classroom activities, "pullout therapies" delivered outside classrooms). Due to this variability in level of implementation of the three key components of high-quality inclusive early childhood education, families and professionals have, at times, had to make the difficult choices of non-inclusive placements as a result of not finding inclusive options with a range of favoured program characteristics. For example, Hanson and colleagues (2001) examined what program characteristics influenced families and professionals' decisions about children's placements in inclusive or segregated settings. Determining what program characteristics are the most and least valued by families and professionals is an important line of inquiry to inform our understanding of what constitutes high-quality early childhood inclusive programs.

Furthermore, when assessing the quality of early childhood inclusive programs, many researchers have used general measures of program quality, as opposed to assessing the specific quality of the program, with attention to the characteristics inherent in inclusive programs; as such, an investigation of the valued characteristics of inclusive early education programs is warranted (Buysse&Hollingsworth, 2009). In a study by Hurley

and Horn (2010), many of the inclusion program characteristics valued and not valued by members of the one-factor solution generated appear to be congruent with the defining features of access, meaningful participation, and system support described in the DEC and NAEYC's (2009) joint position statement on early childhood inclusion.

Access for all young children to early childhood programs, regardless of their abilities, was supported by respondents. Similarly, they did not value programs that enrolled only children with mild disabilities or required children to meet program criteria to participate (e.g., toilet training, walking). A speech language pathologist explained, "Part of the inclusion process is that it includes everybody and so if you set up criteria then you are not an inclusion program." Similarly, the notion of access may be further understood from a parent's explanation of why a 50:50 ratio was not a valued characteristic: "I think that they're better off if they're with more typical peers." A final characteristic of accessible early childhood programs might be one in which all children and families are welcomed. Participants overwhelmingly indicated that they value caring personnel who were open to working with children who have disabilities. For example, Bruns and Moogharreban (2007) recently showed that the majority of Head Start and prekindergarten teachers believed that young children with disabilities belong in general education classrooms. This is positive news given that families and professionals indicated that this is a top priority.

2.10.1 Program Participation

Respondents also valued personnel who ensured that children with disabilities actively participate in classroom routines and activities. As one early childhood special educator explained,

> "what we don't want is our children to be in the corner and all the other children doing something."

Active participation and meaningful progress in the general education curriculum for learners with disabilities has been an important component of the mandate of Individuals with Disabilities Education Act since the 1997 reauthorization (Hurley &Horn, 2010). Active participation in the general education curriculum for young children can be supported by the adoption of principles of universal design for learning. When early childhood personnel implement universal design principles, they support children's active participation by providing multiple and varied teaching and learning opportunities to better promote children's engagement and meaningful participation during day-to-day classroom routines and activities (Hitchcock, Meyer, Rose, & Jackson, 2002). However, the implementation of universal design frameworks for curriculum does not necessarily attenuate the need for early childhood practitioners to make individualized accommodations and modifications for some children (Lieber, Horn, Palmer, & Fleming, 2008). For example, respondents indicated that early childhood programs should "provide accommodations and adaptations to meet the needs of individual children." In a study of preschool personnel, Bruns and Moogharreban (2007) reported that most prekindergarten and Head Start teachers believe that they are not well prepared to implement some necessary adaptations (e.g., alternative forms of communication, positioning).

The DEC and NEAYC's (2009) position statement includes supports in the form of professional development and opportunity for collaboration as a key component of high-quality inclusive early childhood programs. For many teachers, we believe that professional development on competencies needed for adaptations and accommodations

for young children with developmental delays is sorely needed to promote inclusive practices, especially for children with significant disabilities. The participants in this study indicated that it was critical for program personnel to foster collaboration among families, teachers, administrators, and other professionals (Hurley &Horn, 2010). Following this, an itinerant early childhood special educator explained, “Even if they’re [classroom teachers] not particularly trained in a certain area of the child’s need, if they care, they’re going to find out a way to learn it and do it for the best of the child.” Through collaboration with team members, early childhood educators have better access to needed information and competencies required to be able to meet the individualized needs of children included in their classroom. In another instance, Purcell, Horn, and Palmer (2007) found that collaborative relationships were an especially important factor in being able to continue to provide inclusive preschool programs.

Surprisingly, participants did not value

> “Program has a full-time early childhood special educator in every classroom.” One parent explained,

The teacher in the classroom should have access to any kind of information or special training that may be necessary to assist that particular disability of that child that year, but I don’t think it’s necessary that they have an early childhood special education degree or background. Finally, participants in our study indicated that programs that include children with disabilities must be high-quality early childhood programs. Guralnick (2005) noted that there are major variations across community-based early childhood program quality and that high-quality programs may be difficult to find (Bailey, McWilliam, Buysse, & Wesley, 1998). Whereas progress in including children

with disabilities in settings once reserved for children without disabilities has been made in recent years, Guralnick (2005) argued that systematic programmatic inclusion goals for the field of early childhood education have failed to emerge.

One strategy in the development of a single Inclusive Education (IE) system is the Policy on Screening, Identification, Assessment and Support (SIAS)(DoE, 2014), which targets all learners in urban and rural settings who need support, not only those with disabilities, specifically those from the poorest communities in townships, informal settlements, or rural areas, as they have previously suffered from the unavailability of and lack of access to services (DoE, 2005). The policy provides guidelines and information on the procedures in supporting learners who experience barriers to learning, outlining the role of teachers, especially in the Foundation Phase; parents; managers; and support staff within a framework of a new vision of how support should be organized. According to the DoE (2005), teachers should identify learners who are in need of enriched and support programs; require diagnostic help in specific aspects of a learning program; have a learning barrier; are overage; have a mismatch between home language and the language of teaching, learning and assessment; have physical disabilities, such as with vision, speech, general health, hunger, and emotional stability due to harassment or violence; do not attend school regularly; and/or show signs of abuse or neglect.

2.11 Summary

This chapter reviewed the literature relating to the objectives of the study. The literature supports or advocates for mainstreaming learners into regular classrooms. According to the literature, the implementation of IE faces challenges both in developed and

developing countries.Lack of teaching and learning resources for special need learners, teacher's negative perception and attitudes, lack of training and capacitation of special needs teachers and teachers' incompetence's are among other cited challenges. The literature has generally focused on school-based factors that affect implementation of IE. However, it falls short of focusing on the school based foundational factors that influence implementation of IE, such as the support and the role of BOM, which is critical entity as far as school governance is concerned. The literature that has focused on the foundational factors does not determine the extent to which these factors contribute to implementation of IE. The literature has mainly focussed on research in the secondary school education subsector as opposed to the primary school education subsector. This study goes further to bridge this gap and quantifies the extent to which the school-based factors are influencing the implementation of IE. In addition, it adds to those few studies that focussed on the primary education sub sector.

CHAPTER THREE
RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter presents the research design that was adopted for this study including the research instruments, the area of study, and sampling procedures. It also highlights reliability and validity of the instruments of data collection as well as data analysis procedures and presentation.

3.2 Research Methodology

Philosophical paradigm refers to the basic set of beliefs that guide actions, also known as paradigms, epistemologies and ontologies (Creswell, 2009). It is the general orientation about the world and the nature of research that the researcher holds, which guides the researcher's choice of methodology in conducting the inquiry. The nature of the study therefore leads to the researcher embracing either qualitative, quantitative or mixed methods approaches. The philosophical paradigm consists of philosophical assumptions that guide and direct thinking and action (Creswell, 2009). There are four different worldviews: post positivism, constructivism, advocacy or participatory, and pragmatism. Post positivism holds that causes determine effects or outcomes and that knowledge develops through careful observation and measurement of objective reality that exists out there in the world. It deals with testing laws and theories to verify or confirm so as to understand the world. Hence, it advocates for quantitative approaches (Cohen & Swerdlik, 2005). Constructivism holds that meaning is constructed by human beings as they engage with the world whereby the researcher's and respondents' experiences, contexts and culture contribute to meaning (Creswell, 2009). Hence social constructivism embraces qualitative research. Advocacy holds that research should be

intertwined with a political aspect with an action agenda for reform addressing issues such as empowerment, oppression and inequity. Thus participants are engaged as active collaborators.

This research embraced the pragmatic worldview which has affinity with mixed methods research (MMR), allowing the use of qualitative and quantitative techniques either sequentially or concurrently.The objectives of the study will be best answered by deploying qualitative and quantitative techniques. The set of statements and/or questions comprising the research tool will elicit responses which are scored and, hence converted to numbers or scale data which upon analysis are able to measure variables as stated in the conceptual framework. These quantitative responses may not adequately answer the objective but qualitative data generated from the interviews will sequentially build into it. Pragmatism is not committed to any one system of philosophy. Instead, it focuses on the research problem and uses all approaches available to solve the problem (Cohen &Swerdlik, 2005).According to Cardoso da Silva et al. (2018), pragmatism can be defined as a doctrine that considers things from a practical point of view. Pragmatism preaches that action and practical relevance should be the key points of scientific research. The pragmatic paradigm has been presented as a paradigmatic alternative of positivism interpretivism, enabling the solution of inherent problems of dominant paradigms, the positivism and interpretivism.As a new paradigm, pragmatism disruptsthe assumptions of older approaches based on the philosophy of knowledge, while providing promising new directions for understanding the nature of social research (Morgan, 2013).

After a thorough review,Cardoso da Silva et al. (2018), advocated for pragmatism in social research. In their journal article titled “Let's be Pragmatic: Research in Information Systems with Relevance and Rigor” they recommended for use of pragmatism philosophy in social research. In this study, however with the full understanding that pragmatism is deterministic of mixed research methods and vice versa, rather they are just complementary because the focus was providing answers to the study’s research question. Tran (2016) indicated that while he believed much in qualitative approaches, he chose to adopt pragmatism because it enhanced research transferability. Brierley (2017) on the other hand illustrated the role of a pragmatist paradigm when adopting mixed methods in behavioral accounting research. In his argument, Brierley (2017) points out that a flexible approach should be adopted in the application of mixed methods research in behavioral accounting research by conducting it within the pragmatic paradigm, especially when a paradigm is defined as shared beliefs among members of a specialty area. By doing this, behavioral accounting researchers are not restricted by ontological and epistemological issues when deciding on how to address a variety of different research questions.

Morgan (2013) indicated that although much studiesadvocate for mixed-methods research in pragmatic paradigm for social research, nearly all of those works have emphasized the practical rather than the philosophical aspects of Pragmatism.Pragmatism can serve as a philosophical program for social research, regardless of whether that research uses qualitative, quantitative, or mixed methods. As a new paradigm, it replaces the older philosophy of knowledge approach (Guba, 1990;

Guba &Lincoln, 2005; Lincoln, 2010), which understands socialresearch in terms of ontology, epistemology, and methodology.

3.3 Research Design

This study adopted the use of mixed research design of quantitative and qualitative approaches. This design was considered appropriate for collecting data necessary to determine the school-based factors influencing successful implementation of inclusive education in ECDE curriculum. This design is also found useful in identifying the standards against which the existing conditions in ECDE centers will be compared. The design was also chosen as dictated by the nature of the study, which primarily involves gathering of facts. The variables were studied in their natural setting without any manipulation by the researcher. The advantage of this research design was that it provides many relevant facts which are not only important but also necessary.The need for both qualitative and quantitative data collection and analysis therefore guided the choice of mixed methods design.

According to Creswell and Clark(2011),there are four types of mixed research methods designs namely; the Triangulation, Embedded,Eploratory, and Explanatory designs.These two scholars understood triangulation design as a one-phase design in which researchersimplement the quantitative and qualitative methods during the same timeframe and with equal weight. The embedded design is a mixed method design in which one set provides a supportive or supplementary or secondary role in a study based primarily on the other data type. Mixing was done during the interpretation stage. The triangulation design-convergence model is shown in Figure 3.1.

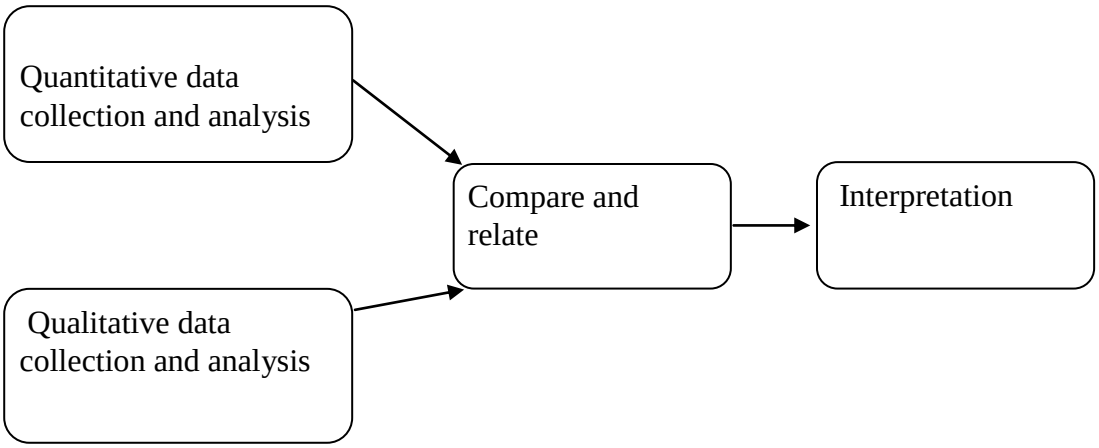


Figure 3.1: TriangulationDesign- Convergence Parallel Model

Source: Creswell and Plano Clarke (2011)

For example, in an experimental design, a researcher could embed qualitative data with quantitative methodology, or in phenomenology, quantitative data could be embedded with quantitative methodology. The explanation on the other hand is two phase mixed design in which qualitative data help to explain quantitative results. The explanatory on the other hand is two phased design in which quantitative data can help explain qualitative results.However, Creswell (2013) at last stage discuss the above types of mixed methods designs namely: convergent parallel, explanatory sequential and exploratory sequential mixed methods. Creswell (2013) adds more of mixed methods design as advanced strategies in the types of mixed methods.

The word triangulationdesign has been changed by Creswell to convergent parallel design to mean that, “a researcher collects both quantitative and qualitative data analysis then separately compares the resultsto see if the findings confirm or disconfirm each other (Creswell, 2013, p. 219). One advantage of these designs has been discussed in terms of description of the design used, data collection procedures and validations of

findings and validation of instruments in convergent parallel design,triangulation is used as qualitative validity of instruments and methods of data collection, analysis and interpretation. From the three basic mixed research designs,it is appropriate because it recommends equal use of quantitative and qualitative methods with triangulation of research instruments in data collection which are timely concurrent (quantitative and qualitative data collected at the same time) and merged during data analysis and interpretation.

Neuman (2006) uses the word triangulation of methods to mean mixing qualitative and quantitative styles of research in data collection and analysis.According to Creswell and Plano (2007), methodological triangulation is the use of atleast two methods, usually qualitative and quantitative to address the same research problem.The study utilized both qualitative and quantitative research methodologies. Qualitative involves the study of people in their natural settings, their experiences and the meaning of those experiences to them, The ECDE teachers in this case created the natural settings of the learners where they learned freely in the process of acquiring new knowledge. Qualitative research provided an encounter with the world and in the way people construct, interpret and provide meaning to their experience (Patton, 2002). For qualitative research the best way to understand what is going on is to become immersed in it and to move into the culture or organization being studied and experience what it is like to be part of it, qualitative research choose to allow the questions to emerge and change as one becomes familiar with the study content(Noyes et al., 2019). The study utilized the following assumptions as advanced by Mohajan (2018),that qualitative research: is concerned with process, rather than outcomes or products; is interested in

meaning and how people make sense of their lives, experience, and their structures of the world; involves fieldwork, because the research physically goes to the people, setting, site, or institution to observe or record behavior in its natural setting; is descriptive because the researcher is interested in process, meaning and understanding gained through words or pictures; and, is inductive in that the researcher builds abstractions, concepts, hypotheses, and theories from details (Mohajan, 2018).

Creswell (2013) noted that qualitative investigators are encouraged to record their own biases, feelings and thoughts and to state them explicitly in the research report because the approach allows them to grasp the point of view of the respondent. Kothari, (2004) explains reasons why qualitative research is done, that it majorly centers on its flexibility, explains what people do in their natural environments for it tries to give meanings and causes of how things happen. In the current study it focused on what teachers do in the classrooms to improve or achieve the intended goals of education, at most is how teachers plan to deliver the planned course of study by disseminating the knowledge already acquired. The goal of a qualitative investigation is to understand the complex world of human experience and behavior from the point-of-view of those involved in the situation of interest.

Flexibility in design, data collection, and analysis of research is strongly recommended to gain “deep” understanding and valid representation of the participations’ viewpoints (Sindani&Sechrest, 1996). The epistemological and ontological underpinnings of the research questions in this study gave an understanding of the curriculum delivery practices through life approach pedagogy, and establish its impact on curriculum instruction. These included organizing objectives, structuring the content to be

presented, the extent of the content coverage in the syllabus, use of resources to support curriculum delivery, selection of appropriate teaching methods/learning activities and assessment/feedback.

Dey (1993) observed that qualitative methodology enables the researcher to identify social bases of meanings, and how they are related to those in attendance, this will accelerate interactions, thus the study focused on the students learning environment and how it is influenced by the teacher in a dialogical manner. Creswell (2013) indicates that qualitative methodology is interpretive in nature for it gives the researcher to acquire insights through creativity, and gives deeper meanings. The aim of adopting qualitative methodology was for the researcher to get deeper understanding of various issues that tries to give a meaning to the inter-relationships in the study which is framed in “how”, “what” and “do” questions.This helped fully discover new information. The study utilized questionnaires (open ended questions) which will try to elaborate on the responses of the closed ended questions, document analysis, observation, and open-ended interviews as tools to collect data on this type of research.

Quantitative methodology sometimes referred to as “scientific method” is influenced strongly by the philosophy of positivism, particularly logical positivism. Positivism depends much on the principle of verifiability. The study quantified the responses from the questionnaires (closed ended) and from the structured interviews and the structured observation (class observation) which will determine the proportions and frequency of the items to enable description and interpretation of data. Creswell (2013) indicates that, this verifiability “reflects a deterministic philosophy in which causes determines effects or outcomes”. In quantitative methodology, he pointed out that it is aimed at describing

the experience “through observation of the counts in order to predict and control forces that surround us”. This was established when teachers and students fill in questionnaires enabling the study to quantify and make judgments on the data filled and also on the activities that will be observed during class observation. These activities were based on the frequencies on the Likert scale which were rated as unsatisfactory, satisfactory, good and very good. On the use of the structured interviews, the responses were quantified to determine the frequency of the responses to a particular item. Therefore, this study was eclectic with the use of qualitative and quantitative data collection methods to strengthen accuracy and validity of the research tools to enable get valid research findings. The research objectives were put in themes and in each theme various tools were used to collect data by using both qualitative and quantitative data collection methods to neutralize bias, clarify issues that would not be clear and to initiate new lines of thought. The strengths of triangulation in the study helped to bring out clarity of meanings of events and to counter check the purported weakness of each method hence providing equal balance in providing in-depth information.

Questionnaires (closed-ended) capturing major themes of the study were administered to teachers and students with some few open ended questions to give room for free expression and to elaborate issues that may seem unclear and also to give additional information left out in the closed ended questions. The two techniques, qualitative and quantitative methods were complimentary, each contributing to in-depth understanding and interpretation of data.

3.4 Study Area

This study was done in Uasin Gishu County, 330 km North West of Nairobi. It lies between longitudes 34 degrees 50‟ East and 35 degrees West and latitudes 0 degrees 03” South and 0 degrees 55” North. It borders Nandi County to the South, Trans Nzoia County to the North, and Elgeyo Marakwet County to the East (see map in Appendix V. It shares some rather short borders with Bungoma County to the West and Kericho County to its South Eastern tip. It occupies 3,345 square kilometers and as of 2012, it had a population of 894,179 people (CRECO, 2012).

Uasin Gishu County was selected as the study site due to its convenient to the research topic. In addition, Uasin Gishu registers one of the populous counties in Kenya. It is growing and is now rated one of the counties that have heavily invested inEarly Childhood Education. The other consideration is that, Uasin Gishu ECDE centers in the rural areas are inaccessible from the main roads. Owing to their unreachability, learners with special needs are vulnerable because such ECDE centers are way far from being monitored closely by the education authorities.

3.5 Target Population

According to Ngechu (2004), a population is a well-defined or set of people, services, elements, events, group of things or households that are being investigated. Since the study explored the influence of the independent variables (teacher perception, competency, learning environment and SMB support) on dependent variable (implementation of IE), the unit of analysis wasthe ECDE centers in Uasin Gishu County. The target population studied comprised of all head teachers and ECDE teachers in the 492ECDE centers in which 471are attached to public primary schools in

Uasin Gishu Countyand 21 as stand-alone ECDE centre. There were atotal of 1036 ECD teachers and 492 head teachers in the public primary schools in Uasin Gishu County.

3.6 Sample Size

Yamane's (1967) formulae, was used to determine the sample size. It provides a simplified formula to calculate sample sizes for finite proportions. It operates on the assumption of a 95% confidence level and p=0.5 for maximum sample. The formulae is as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Where;

n is the sample size,

N is the population size, e

is the level of precision.

For N=1036, we substitute it in the formulae to get the sample size of the ECDE teachers as follows:

n_0=10361+10360.052 = 288.5 ≈ 289

With finite populations, correction for proportions is necessary. This is because a given sample size provides proportionately more information for a small population than for a large population. The sample size (n_0) can thus be adjusted using the corrected formulae:

$$n = \frac{n_0}{1 + \frac{(n_0 - 1)}{N}}$$

Where;

n is the sample size

N is the population size.

n_o is calculated sample size for infinite population

$$n_0 = \frac{1036}{1+(289-1)/1036}$$

=221

Similarly, the same procedure is applied for population the sample of the ECDE centre, to obtain 20 centres.

3.7 Sampling Techniques

A sample design is a definite plan for obtaining a sample from a given population (Kothari, 2004). It is the technique that the researcher would adopt in selecting items for the sample. The researcher adopted a sample design which is reliable and appropriate for this study. Sampling is the process of selecting a number of study subjects from a defined study population and the sampling methods should follow different techniques depending on whether the data is quantitative or qualitative. A sample frame was drawn from the target population. A sampling frame is a list of cases or individuals from which a sample can be selected to form the units of observation in a study (Mugenda &Mugenda, 2003).

Stratified and proportionate sampling was used to select schools in the six sub-counties

of Uasin Gishu County. Schools were stratified as per sub-county and a proportionate sample for each sub-county computed based on the overall sample for the County and total number of schools in the respective and County. The number of selected schools was 196 and the total number of teachers selected was 221. The selected schools (ECDE centres) in each Sub-County were selected randomly using random numbers generated in excel sheet. Then in the ECDE centres, the teachers were selected randomly to attain the numbers required for that ECDE centre. The head teachers were purposively selected.

Table 3.1:Population and Sample sizes for ECDE centers and teachers

Sub County	No. of ECDE centers	Sample (ECDE Center)	No. of ECDE teachers	Sample (ECDE teachers)
Kesses	76	30	160	34
Kapseret	76	30	158	34
Moiben	80	32	168	36
Ainabkoi	80	32	171	36
Turbo	89	36	188	40
Soy	91	36	191	41
TOTAL	**492**	**196**	**1036**	**221**

3.8 Instruments of Data Collection

Data collection was done by use of questionnaire, observation schedules, document analysis, and structured interview schedule. The questionnaires and document analysis were used to collect quantitative data while interview schedules, observation schedules were used collect qualitative data.Thesewere presented to respondents in order to collect the required information. The researcher used drop and pick method to collect data from the respondents.

3.8.1 Questionnaire

A questionnaire is a set of questions for gathering important information from individuals about the population (Mugenda &Mugenda, 2003). One can administer questionnaires by mail, telephone, using face-to-face interviews, as handouts, or electronically. The questionnaires consisted of a number of both open-ended and closed-ended questions. The questionnaire enabled the researcher to collect data within a shorter time since most of the information were easily described in writing. A questionnaire has the ability to source information associated with the intensive inquiry nature of the research, it is found to be convenient, cost effective and highly dependable (Kothari, 2004). It is also able to allow the respondent's time to respond objectively. Two questionnaires, one each for the teachers and the head teacher wereadministered to them in the sampled ECDschools. Two questionnaires, one for the teachers (Appendix I) and another for the head teachers (Appendix I) were administered during data collection, using the drop and pick method.

3.8.2 Interview Schedule

This study also madeuse of interview schedule to collect the required information. An interview schedule is defined by Mugenda and Mugenda (2003) as a set of questions that the interviewer asks when interviewing. The interview enabled the researcher to collect information not covered in the questionnaire to assist in standardizing the interview situation in a way that the interviewers are able to ask the same question in the same manner. Kothari (2004) notes the usefulness of this method that it has the capability of producing fairly reliable results. It is however thought to be expensive. The interview schedule guide (Appendix III)was administered to head teachers and teachers of the sampled school.

3.8.3 Observation Schedules

The instrument was designed to assess the real-life situation in school environment both inside and outside classroom in ECD centres. Lessons were observed in each of the three levels of ECD in the selected schools pertinent happening such as behaviour disposition of learners and their teachers during learning and teaching process. Level individual learner's involvement and teacher's ability to cater for each needs and also appropriateness of pedagogy observation schedule also contained checklist which provided facts on the existing resources classroom arrangement and facilities to ascertain them appropriateness in meeting individual learner's needs. The observation schedule is depicted in Appendix IV.

3.8.4 Document Analysis

A document analysis guide (Appendix V)was used in analyzing various ECD documents in relation to inclusive education. This included ECD syllabus and teachers guide handbook (2008). Daily program of activities (schemes of work), use of Individual Education Program (IEP) documents and policy guides for example for service standards guidelines for ECD (2006) and the policy framework for ECD (2006) and any other relevant document. Triangulation of the four research tools were used to support the accuracy and conclusion of the findings. Data collected by one method was crossed with those other methods.

3.9 Piloting

According to Murray (2003), piloting is important because it helps to identify ambiguities of the items and vague questions for improvement. A pilot study was conducted before the main study. To ascertain the tool and the procedures during piloting, the researcher's supervisors assisted in ensuring that they were in relation to

the set objectives and content area under study.For this purpose, two (2) primary schools, selected in Nandi North sub county, having similar characteristics to those under study but those that werenot included in the sample were selected. Two (2) head teachers and two (2) teachers, one (1) from each school were involved in the piloting.

3.9.1 Validity

This study established content and face validity to assess the accuracy, meaningfulness, appeal and appearance of the instruments for data collection. The instruments items formulated in the study were checked to ascertain that the envisaged quantitative and qualitative data were collected. Validity of an instrument is the success of a scale in measuring what it sets out to measure so that the differences in individual scores can be taken as representing true differences on the characteristics under study (Koul, 1992); while content validity refers to the subjective agreement among professionals that a scale logically appears to reflect accuracy in what it purports to measure (Kothari, 2004). To determine content validity of the instrument items, the researcher's supervisors assisted in ensuring that the instruments are in relation to the set objectives and content area under study. Their suggestions and comments were used as a basis to modify the research items and make them adaptable to the study. Basing on the feedback from the experts, the wording of the instruments was modified, some may be excluded while others may be added as deemed fit. This resulted into a refined questionaries tool that enabled data relevant to the study objectives to be collected.

3.9.2 Reliability

Data collected from the pilot study were used to compute the reliability of the instruments' items. The instruments items formulated in the study were also checked to ascertain that the envisaged data for mixed methods design. Cronbach's coefficient

alpha method was used to determine internal consistency of the items. This method wasappropriate owing to the fact that it requiredonly one administration of the test (Cohen &Swerdlik, 2005). It is also appropriate where items have got choices (Cozby, 2007). In this study, data collected from the pilot study was used to compute the reliability of the instruments' items. Spearman-Brown coefficient was computed. This coefficient was used to estimate full test reliability basing on split half reliability of an instrument or scale. The Pearson correlation of split forms were used to estimate the half test reliability after which the Spearman-Brown Prophecy Coefficient was used to predict full test reliability basing on the half test reliability using the formula below:

rSB1= (K x r i j)/ (1+ (k_1), where

rSB1=The Spearman-Brown split half reliability

r_{ij} =The Pearson correlation between forms i and j

K=Total sample size divided by sample size per form (k is usually 2).

The instruments were split into two halves the odd and even number criteria. Reliability was computed using the above formula. A reliability coefficient of 0.86was obtained and was considered high enough for the instrument to be considered reliable. According to Macmillan and Schumacher (2001), a correlation of 0.80 or more indicates a well-constructed test.

3.10 Data Collection Procedure

The researcher requested for an introductory letter from Moi University. This letter assisted in getting permission from the National Council for Science and Technology (NACOSTI) to conduct the research. The researcher identified and trained two research

assistants who assisted in administering the questionnaires to the respondents. The research assistants were involved to facilitate efficiency in data collection.

3.11 Data Analysis

Data analysis is the process of bringing order, structure and meaning to the mass of information collected. The method of analysis chosen depends on the type of research, the objectives and the hypothesis to be tested. Data was analyzed both quantitatively and qualitatively. The structured questionnaire and observation guide items were coded into SPSS ver. 20 while taking care as to whether the responses were nominal, ordinal or scale. Frequencies and percentages were generated into tables and interpretation made. For open questions, similar themes were extracted as per the number of times that they appeared and the same procedure was repeated, that is, the open-ended questions was analyzed through reporting themes and quotas that emerged. Similar, procedure was done for the data generated from the interview guide as was done for the open-endeditems in the questionnaire. However, the frequencies generated were not reported but just used to inform. Data was analyzed and presented in frequency tables, graphs and charts to present the findings of the study. The themes emerging from secondary data were identified to augment the primary data.

Chi square test of independence and regression was used to establish nature of correlation between the study variables and how much the independent variablescontributed to the dependent variable (Implementation of IE). The level of significance was set at 95% or at a p-value of 0.05. Chisquare assumes that the data were obtained through random selection, data in the cells should be frequencies, or counts of cases rather than percentages or some other transformation of the data, the

levels (or categories) of the variables are mutually exclusive, that is data contribute data to one and only one cell and the study groups are independent. Finally, the value of the cell expected should be 5 or more in at least 80% of the cells, and no cell should have an expected of less than one.

3.12 Ethical Considerations

Mugenda and Mugenda (2003) ascribe that research process, ethics focus on theapplication of ethical standards in planning of study, data collection and analysis, dissemination and use of results.Logical and ethical considerationswereadhered to during this research. The researcher requested for an introductory letter from Moi University. This letter assisted in getting permission from the National Council for Science and Technology (NACOSTI) to conduct the research. In addition to this, a formal permission was sought from all the schools through the office of the county director of education. For quantitative data collected in the questionnaire, the researcher assured the respondent of their confidentially over information provided in it and they were required never to indicate their name or any personal detail in the instruments. The information provided will used for academic purpose only. All cited workswere dully acknowledged.

Document analysis or content analysisrequires the application of ethical concernsin acquiring and handling of official documents that belong to institutions and offices. According to Robson (2002) the researcher soughtpermission in getting and using these documents which are rarely refused. The researcher stated the purpose of the document analysis and promise to preserve the materials and confidential contents of the information. The document was properly kept to avoid corruption and mutilation and be

returned on time.

Ethical issues in participant observation were considered avoiding certain resulting human relation problems while observing recording and taking field notes. Whitehead (2006) comments that if ethnographer is sole researcher in the setting, it can be quitedifficultto observe and take notes simultaneously because this can be destructing to those who are being observed. According to Creswell(2009) such doing can be suspected and the researcher can be accused of spying, pressured to give material things or suspected of trysts with women. Therefore, being aware of the above ethical challenges, the researcher disclosed herself to the students and teachers during observation schedules by ensuring that they were aware of her identity and purpose of her presence among them, seeking permission from various groups and group leaders to observe them, thereby ensuring that qualitative data is collected ethically. The researcher carried out objective observation, sought consent and respects the privacy of male and female students and promises them confidentiality.

3.13 Summary

In this chapter, the research design that was adopted is mixed research methods with pragmatic paradigm. Questionnaire comprised the main tool in the study, and was pilot tested. The others which provided additional information in sequence includedinterview and observation schedules, and were validated. The data from the tools were supplemented by analysis of documents that includedECD curriculum, Schemes of work, Individual Education Program (IEP) documents, teacher's guide handbook. The area of study was Uasin Gishu and the target population was teachers of SNE and head teachers of ECDE centres. Random selection of ECDE centres and respondent

(teachers) was done while the teachers were purposively sampled for interviewing.Data collected were captured and analysis procedures conducted by aid of SPSS ver. 20. Descriptive statistics used include percentages, while inferential statistics included chi-square and regression. Presentation is done using tables and charts.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, INTERPRETATION AND DISCUSSION

4.1 Overview

This chapter presented analysis of the data collected and interpretation of the findings of the study. The chapter has been arranged into seven main sub sections. The first sub section presents the socio-demographic information including learner's population and disability statistics and other pertinent information from the respondents of the study. The second section presents findings on influence of variables; teacher perception, teacher knowledge and skills, school learning environment and support of school management on implementation of inclusive education. Section three presents key informant responses on aspects of inclusive education. Sub section four presents the association between independent variables and dependent variable in the study. The last section section presents contribution of the independent variables on implementation of inclusive education and the last section focuses on the challenges to implementation of IE.

4.2 Demographic Information

The study findings indicated that there were more male head teachers (59.7%) compared to their female counterparts (40.9%). Across all the qualification levels, for instance P1, Diploma etcetera, there was higher proportion of qualified head teachers than the subject teachers, except for a bachelor's degree in which a higher percentage (34.7%) comprised head teachers compared to the subject teachers (24.9%) as shown in Table 4.1.

Table 4.1: Demographic Information of the Teachers and Head Teachers

Demographic Information	Categories	N	N%
Gender	Male	117	59.7
	Female	79	40.3
	Total	**196**	**100.0**
Education level of the head teachers	P1	19	9.7
	Diploma	98	50.0
	Bachelors	68	34.7
	Others	11	5.6
	Total	**196**	**100.0**
Education level of the teachers	P1	24	10.9
	Diploma	116	52.5
	Bachelors	55	24.9
	Others	26	11.8
	Total	**221**	**100.0**
Status of ECDE	Public	156	79.7
	Public with special unit attached	40	20.3
	Total	**196**	**100.0**
Curriculum	NACECE	186	95.0
	MONTESSORI	6	2.9
	Others	4	2.1
	Total	**196**	**100.0**
Other Curriculum offered	8-4-4	176	89.8
	2663 system	4	2.0
	CBC	12	6.1
	Special needs	4	2.0
	Total	**196**	**100.0**
Areas of Specialization	Regular teacher	49	22.2
	Special needs education(SNE)	30	13.6
	ECDE	142	64.3
	Total	**221**	**100.0**

Majority (79.7%) of the ECDE centers did not have special unit attached. However, there were those that had special units attached, and this comprised 20.3% as shown in Table 4.1. In addition, most of the ECDE centers were offering NACECE type of curriculum, with others offering Montessori. The other ECDE centers (2.0%) were offering other types of curriculum other than the above mentioned. The area of specialization for most (64.3%) of the ECDE teachers was early childhood education

(ECD). There were few teachers who were specialized in special needs education as represented by (13.6%) of the teacher respondents as indicated in Table 4.1.This proportion of teachers in special education is low and jeopardizes the implementation of SNE, since inclusive education has largely been defined in terms of access (Artiles,Kozleski, Dorn &Christensen, 2006; McLaughlin &Jordan, 2005).IE is adequately implemented when Special Need Learners are able toget access to teaching and learning materials, qualified and adequate teachers and disability friendly infrastructure such as spacious fields, accessible toilets and other social amenities.

4.3 Learner's Population and Disability Statistics

There were an estimated 39,473 pupils in the selected ECDE centres, with 51.2% of this being boys. A higher proportion of the boys (3.8%) were with disabilities compared to their female counterparts who comprised (2.9%). On average, the proportion of the learners with disabilities stood at 3.4% (Figure 4.1).

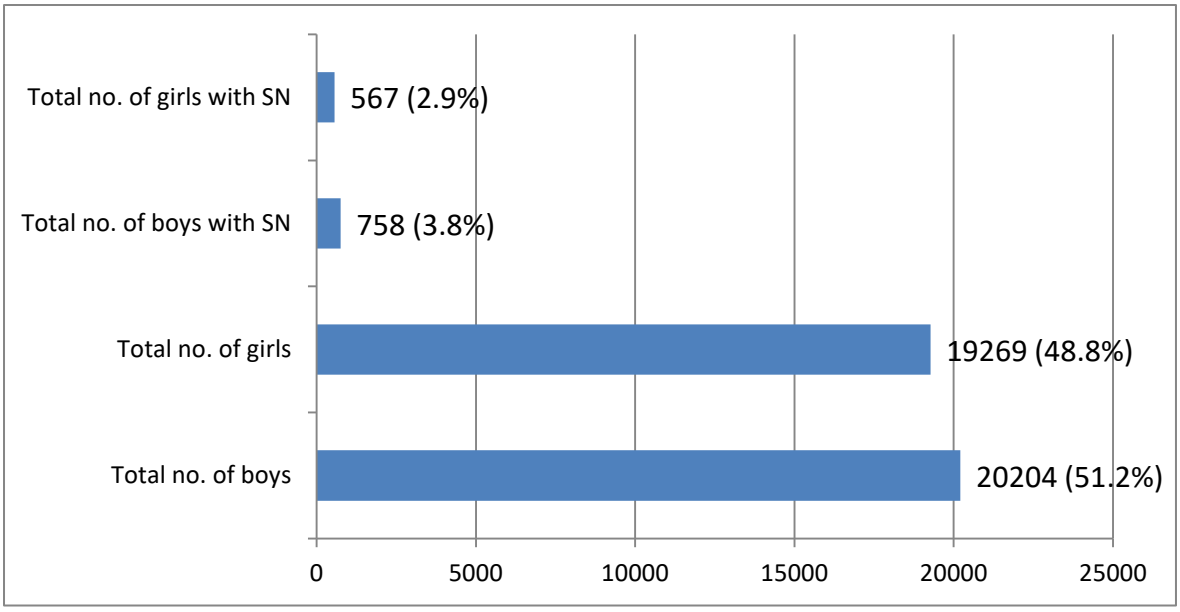


Figure 4.1: Learner's Populations and Statistics

Across all the ECDE centres studied, the learners with various disabilities were represented. There were those with vision problems (9.0%), learning problems (28.0%) and communication difficulties(16.9%), emotional problems (17.1%), physical handicapped (11.3%) and the gifted (17.7%). From the findings, there were few learners with vision but many learners with learning problems (Figure 4.1).

Table 4.2: Categories of Learners with Disabilities

	Responses	
	N	Percent
Learners with Vision problems	48	9.0%
Learners with Learning problems	149	28.0%
Learners with Physical handicaps	60	11.3%
Learners with Communication difficulties	90	16.9%
Learners with Emotional problems	91	17.1%
The Gifted and talented	94	17.7%
Total	**532**	**100.0%**

Besides the specified categories of leaners with disabilities in Table 4.2, other categories of learners include mental problems (7.5%), Autism (4.1%), ASD, down syndrome, hearing impaired and the orphaned. The foregoing results is informativeto the fact that disabled learners are well within the regular classrooms in the education system and as such the Salamanca statement that there was need to take actions that will ensure accommodation for all children "regardless of their physical, intellectual, social, emotional, linguistic or other conditions" (Salamanca Statement and Framework for Action, UNESCO, 1994, Article 3) is alive to that fact. The statement was clear enough to also indicate thatstreet and children from remote or nomadic populations, children from linguistic, ethnic or cultural minorities, and children with special educational needs and disabilities were also to be included. The UNESCO International Conference in Education, which was held in Geneva in 2008alsosupportedthe inclusion of more

diverse range of learners, regardless of their ability or their characteristics. The conference also advocated for the promotion of respect for the needs and abilities of learners including the elimination of all forms of discrimination (UNESCO, 2009).

4.4 Influence of Variables on Implementation of Inclusive Education

4.4.1 Teacher's Perception

The study results indicated that, in the ECDE centres, the teachers were positive for most aspects of the implementation of IE.These ranged from pedagogy to beliefs about learning forspecial needs learners.The teachers moderately or to a great extent believed that it is indeed difficult to aligning teaching to incorporate learners with special needs, with 28.1% and 48.0% believing to a moderate or great extent.. Also, it was difficult to use complex tasks in dealing with SNE learners as indicated by 33.9% and 38.5% who indicated so to a moderate and great extent respectively. Despite this, it is hard to teach class with special need learners (35.3%). On the other hand, the teachers indicated that it was stressful to align pedagogy in an inclusive setting (39.8%). However, most (58.4%) of the teacher believed that their fellow teachers like aligning the content of the course with that of special needs. Even a higher proportion (66.5%) of the teachers feels that they have the capability of aligning course content with that of SNE learners. The teachers also felt capable of using complex tasks with multiple solutions (54.8%) and teach where regular and SNE learners execute experiments (62.9%).

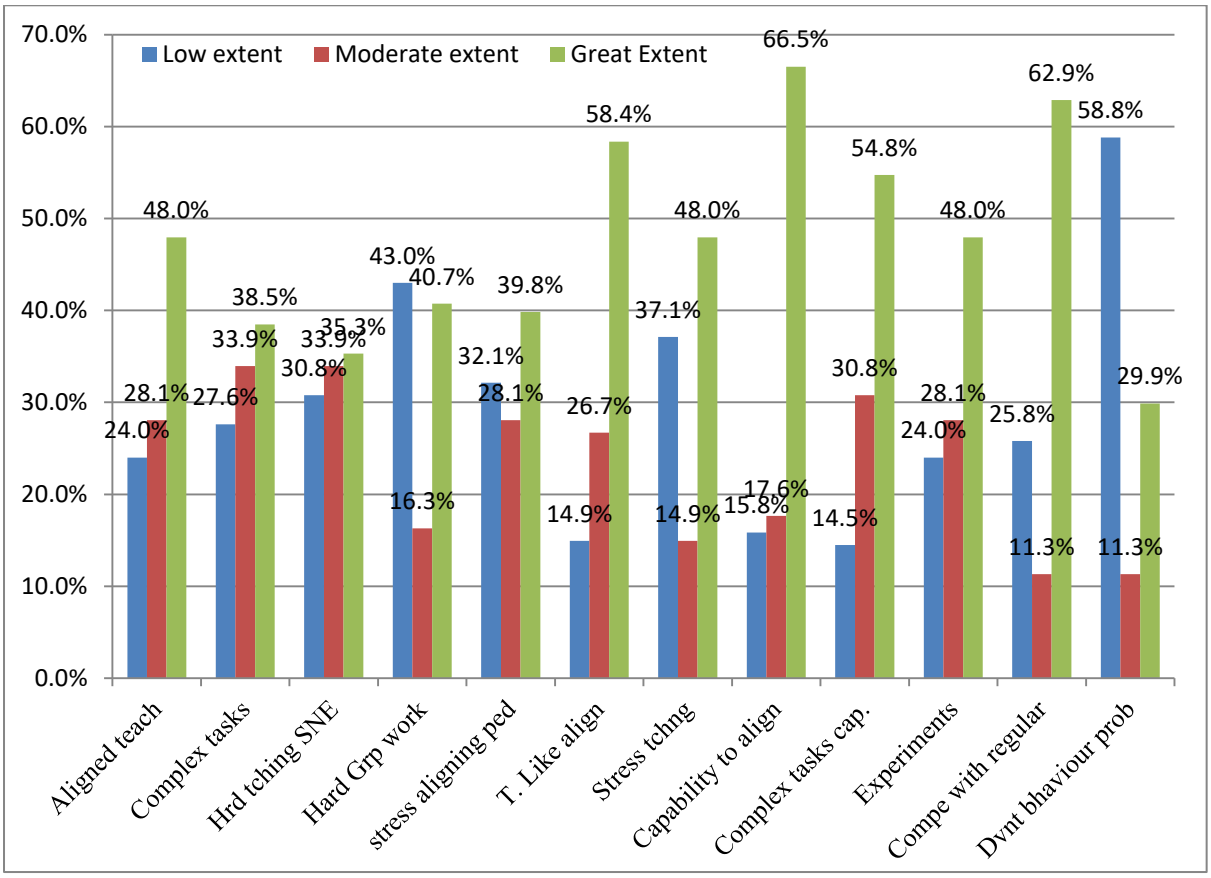


Figure 4.2: Perception of Teachers on Aspects of Implementation of IE

This result resonates well with other studies which have indicated that indeed teachers can identify children's learning style in order to meet their needs (Stakes &Hornby,2010). As Stakes and Hornby (2010) suggested teachers can carry out assessment of each student so that they are able to apply the variety of pedagogy based on the learning style of the student. In any case each child has his/her way of learning (Exley, 2003). However, as the findings suggest, it may sometimes prove difficult to perform the multiple tasks generated keeping in mind the fact that some of these classes have many pupils (Gyimah, 2006). Otherwise research such as that by Norwich and Lewis's (2001), has confirmed that having multiple teaching strategies and methodologies is sufficient if teaching objectives have to be met in a special needs

class. Further, Vaughn, Gersten, and Chard (2000)indicated that teachers who adapt their teaching styles will benefitthe children much more than teachers who do not adapt to teaching strategies. Some special need experts such as Florian and Holly(2010)did find that the strategies and the teaching approaches are not much different and that most of them can work for multiple groups. Despite this, Florian (2005) later found that whatever worked for most children does not work with some.

The study findings indicated that there was no association between the teacher's perception and implementation of IE. Additionally, there was no association between teacher's competence and implementation of IE in ECDE in Uasin Gishu County. This as depicted in Table 4.3, shows that there was absence of trending with regard to implementation of IE. For instance, there was a low extent of implementation of IE, despite 35.2% of the teachers having shown positive perception towards it. Similarly, there was moderate extent of the implementation of IE with 26.5% being positive about the process. On the other hand, contrary to a small proportion (1.5%) of teachers being negative, the implementation of IE was to a great extent (Table 4.3).

The above findings on the influence of the perception of the teacher on the implementation of IE neither agree nor disagree with studies by Cross, Traub, Hutter-Pishgahi and Shelton (2004) and, Wong and Cumming (2010) as the studies have affirmed that the implementation of inclusive education will be successfulwhen teachers hold positive perception towards inclusion (Engelbrecht, Oswald, Swart, & Eloff, 2003). This is because they presume that the perception of the teachers, have a significant influence on the learning that is going on in the staff room.Murphy, Delli, and Edwards (2004) had also highlighted that positive teachers motivate children to

learn when they show and give care to the children.

Ross-Hill (2009) and Croll and Moses (2000) had suggested that the initial attitudes of the teacher are fundamental to the implementation and experiences of inclusive education. While inclusive program may be supported by the all stakeholders including parents and professionals, all may be in vain when the attitude of those tasked with implementing the curriculum is negative (Croll &Moses, 2000). Consequently, the physical placement alone of students with special needs into regular school does not solve the problems. Avramidis and Norwich (2002) and Parasuram (2006) did a study and found that younger teachers and those with fewer years of teaching experience are more likely to be positive about inclusion since they were more likely to adapt their skills and resources to accommodate all types of students.Another study by Woolfson,

Grant and Campbell (2007) indicated that special education teachers typically were more positive and had positive attitude towards inclusion than the general education teachers.Jordan (2003), Stanovich (2004), Moberg, Zumberg, and Reinmaa (1997), Murphy (1996) and,Sharma, Forlin and Loreman (2008) suggest in their studies that attitude is the most important factor towards inclusion leads to success in implementing inclusive education. Infact, studies byAvramadis and Norwich (2002), Brighton (2003) Dyson, Farrell, Polat, Hutcheson, and Gallannaugh (2004)indicated that one factor that stands out in implementation of inclusive education is the teacher's resistance. Other studies that found that there were more teachers who were positivethan being negative includeRoss-Hill (2009) and Croll and Moses (2000), who indicated respectively that most 90.0% (9 out of 10) were positive on inclusion in regular class rooms.

A significant number of factors which may be categorized asteacher,student, or

environmental have contributed to, not only the formation of teacher beliefs, but also its maintenance which has consequently impacted the overall success of inclusion.Jordan and Stanovich (2004); McGhie-Richmond, Underwood and Jordan (2007) as well as Stanovich and Jordan (1998), all indicated that one factor that lies with the teacher is the view that teachers view students with disabilities as beyondinstructional responsibility. In addition, teachers also believe that students with disabilities in inclusive classrooms detract the time of the teachers as well as other students and as such the teacher is rendered ineffective in teaching students who are not disabled.Because of the crucial role of the attitude of the teacher, studies have sought to determine reasons or factors that contribute to either negative or positive attitude.

A study by Hsieh and Hsieh (2012) for instance, identified a number of factors such as teacher training, teachers' experience on learners with special needs, the categories of special need that are there and the professional role held. Despite special need education having taken part in developing and developed nation, negative attitude is still evident across board. Even the educators who couple as teacher still may not prefer integration of special needs education if given as a choice. This scenario made Singal (2008) to conclude that many teachers believed that children who require academic moderation would not be able to cope with the demands required of the education in the mainstream schooling system.A study by Slavin (2011) supported Singal (2008) by indicating that, there was negative correlation between the academic ability of the student and the level of disability. In other words, when the disability was severe, the academic ability dwindled or reduced. This made her to insist that children with disabilities should be taught in exclusive settings. Bowman (2006) did a country wide study in South East

Europe and the perspective of the teachers was varied with some opining thatdisabled learners should not be included in regular classrooms. This attitude according to the study was more pronounced for elementary education majors.

Leyser, Kapperman and Keller (2008) also found differences in attitude to inclusion across the countries United States, Germany, Israel, Ghana, Taiwan and the Philippines. The difference was both because of positivity and opportunities for disabled learners. However, the study revealed that in the developed countries like US and Germany teachers were more positive compared to;either Ghana, Israel or Taiwan. In US, the positivity isattributed to a well-established legislation. In Germany, there was positivity despite inclusive programs being run on a pilot basis.

Despite the varied opinion, the Canadian Council on learning (2009) have found that when students with disabilities in inclusive settings had favorable outcomes in academics. The aforementioned observation by the Canadian Council on learning (2009) was supported by Ali, Mustapha and Jelas (2006) who indicated that students in an inclusive education intensifies social interaction. This is most likely to result in better academic outcomes. Pertaining to teacher knowledge and skills, the research findings indicated that there was no association between the teacher knowledge and skills of the teachers and the implementation of IE. Put it in another way, there was no trending between the two variables. To show this, the research findings indicated that, 34.2% and 26.0% of the teachers depicted teacher knowledge and skills in handling children with disabilities despite the implementation being low or moderate.Similarly, implementation of IE was to a very low extent despite a higher proportion (8.7%) of the teachers being competent compared to 2.0% teacher knowledge and skills of teachers corresponding to

a very great extent of implementation of IE (Table 4.3).

Table 4.3: Teacher's Perception and Competence

			Implementation of Inclusive education				
			A very low extent	low extent	Moderate extent	Great extent	A very great extent
Teacher perception	Negative	Count	2	11	8	6	1
		%	1.0%	5.1%	3.6%	2.6%	.5%
	Positive	Count	20	78	59	33	3
		%	9.2%	35.2%	26.5%	14.8%	1.5%
Teacher competence	Not Competent	Count	3	13	9	5	0
		%	1.5%	6.1%	4.1%	2.6%	0.0%
	Competent	Count	19	76	58	33	5
		%	**8.7%**	**34.2%**	**26.0%**	**14.8%**	**2.0%**

Observation guide indicated that, the attitude and motivation of the teachers in performance of their teaching duties at the ECDE centre were positive most of the time. There was evidence of the teachers being highly motivated to perform their duties with SNE learners. Cooperation and communication was depicted as well as teacher preparation with regard to inclusive education and remedial programs.

4.4.2 Teacher knowledge and skills

The knowledge and skills of the teacher is a critical component of the implementation of special needs education in inclusive settings. The teachers were in agreement that there was need to haveknowledge and adaptive skills to deal with various cases of learners with special needs in inclusive settings. For instance, they indicated that there was need to have knowledge and adaptive skills (38.9%) to handle learners with disabilities. The teachers also indicated that they were able to manage (36.7%) learners with special needs and handle disability (89.1%) such as Attention-Deficit Hyperactivity Disorder (ADHD) even though it may prove difficult to handle cases such as intellectual (52.0%) disorder or Autism (52.0%), as indicated in Table 4.4.

Table 4.4: Perceived Competence of the Teacher

	A very low extent		Low extent		Moderate extent		Great extent		A very great extent	
Statement	N	N %	N	N %	N	N %	N	N %	N	N %
Enough knowledge to teach learner with motor disabilities	46	20.8	26	11.8	63	28.5	45	20.4	41	18.6
Skills to adapt teaching strategies for my students with motor disabilities	42	19.0	40	18.1	53	24.0	71	32.1	15	6.8
Need to learn on characteristics of students with motor disabilities	7	3.2	3	1.4	14	6.3	52	23.5	145	65.6
Need to learn on characteristics of students with ADHD	3	1.4	16	7.2	25	11.3	64	29.0	113	51.1
Knowledge to teach students with intellectual disabilities	60	27.1	38	17.2	54	24.4	36	16.3	33	14.9
Enough knowledge to teach students with autism	81	36.7	34	15.4	45	20.4	48	21.7	13	5.9
Difficulties managing SNE student behavioural problem	**62**	**28.1**	**28**	**12.7**	**50**	**22.6**	**36**	**16.3**	**45**	**20.4**

With regard to teacher's competence, there was also absence of trending with regard to implementation of IE. In particular, there was a low extent of implementation of IE, despite 34.2% of the teachers having shown being competent. Similarly, there was moderate extend of the implementation of IE with 26.0% being competent. On the other hand, contrary to a small proportion (2.0%) of teachers being competent, the implementation of IE was to a great extent (Table 4.4). These findings differ with most studies because they have indicated that the teacher’s competency is positively

correlated with implementation of inclusive education.Before teachers become competent, they need to be adequately trained so that they have the requisite skills to handle children with disabilities in inclusive settings. Pugach (1996) and Johnson (2008),indicate that teachers who possesses specialized inter-personal skills, such as decision making, trust building and conflict management, are better placed to be effecting in collaborative team functioning, and hence implementation of inclusive education. Teachers without training may lose control, since that they do not know how could handle the situation. A teacher could take back control of his class by not being the centre of all classroom routines. More interaction between students and teacher are necessary for quality education. It is easier for teachers to know the students' progress and then adjust the teaching speed.

A study by Leyser, Kapperman and Keller (2008), the reason why teachers' attitudes were less positive in Ghana, the Philippines, Israel and Taiwan was because of nonexistent or limited training for teachers to acquire integration competencies. In addition there were also very few opportunities for integration in these countries. Therefore, the approach towards the preparation of the teacher is needed to address these concerns expressed by systems (Carnell & Tillery, 2005). The initiatives towards teacher competency have several impacts that might include reforms in lawsofcertification, feedback fromgraduates, interests of a particular faculty or standards-based reform. Some scholars have suggested team work as a competency required of a special needs educator. General and special neededucators in inclusive settings require teamwork andcompetencies in teaching skills which are of great importance(Jenkins et al., 2002; Pugach, 1996). Voltz and Elliott (1997) indicated that preparatory programs for teachers are not often adequately addressed and as such,

student teachers are not likely to benefit from learning that involves specificbehaviorswhich are collaborative in nature. More opportunities emerge that enhance collaboration between special or general education counterparts duringthe course of their training. Thus, with such experiences, teachers can depict effective skills in building strong teamwork which is then implemented in inclusive classrooms. Lesar et al. (1997) and, Nowacek and Blanton (1996)strongly recommendedfield experiences as one of the most classic method of preparing teachers for inclusive education. This is because practical on real life situations have more impact on the development of student teachers than other aspects of student teacher training programs(Sileo, Prater, Luckner, Rhine, & Rude, 1998;Stowitschek, Cheney, & Schwartz, 2000). This impact is further enhanced when undertaken at the early stages of the program. Indeed. Field experiences in inclusive classrooms and preparation for collaborative teamworkand teaching have garnered significant support as integral components of teacher preparationprograms.

Buell, Hallam and Gamel-McCormich (1999) and Subban and Sharma (2006) have indicated that trained staff have increased confidence about teaching within an inclusive classroom and are fundamentally providing support to the general classroom teacher in the implementation of inclusionin the implementation of inclusion (Bean, Hamilton & Zigmond, 1994).Another form of competency that is related to team work and has been advocated for teachers who implement inclusive setting is consultation, which is a form of service delivery whose goal is to enhance problem solving techniques and developing effective inclusion competencies amongconsultees.Gettinger, Stoiber, Goetz, and Caspe (1999), indicated that the competence of the teachers who are charged with implementing inclusive education should not be put to question and if there is some

doubt on some skill domains, then there will be need for more effective training and/or professional development in several areas at both the in-service and pre-service levels. A case in point is lack of competency in Interdisciplinary teaming and challenging behaviours/attentiondeficits as postulated by Gettinger, Stoiber, Goetz, and Caspe (1999). Burton (1997) indicated that direct or hands on experience was essential for enabling trainees to apply, adapt, and receive appropriate feedback about their knowledge and skills related to inclusion.Scruggs and Mastropieri (1996) adds that there is need for research and collaborative partnerships to comprehend how to close the gap among trainees, trainers, professionals and parents and in their beliefs about the competencies being developed in training programs. Further Bukvic (2014) reminds that Inclusive education could be a benefit for all the concerned: students, teachers, and parents. In addition, the competence of the teacher is an important question as basic carrier of educational process.

Ideally the competence of the ECDE teachers andexperience for that fact requires some degree of competence. In most countries now this competence requirements has become formalized.In Europe for instance, formal competence of teachers of inclusive education is required for ECDE practitioners despite cases of diversity of early childhood systems,intraditions, institutions, and professional roles. Other than the formal competencies required, there is also need to have competencies in other aspects of inclusive education such as assistive technologies. Fisher et al.(2003) not only suggested competencies in assistive technologies but also in behavioural support and supervision of paraeducators. Ultimately competence of the teachers will comprise many strategic reforms in teacher preparation models that include that respond to

increasingly changing diversity and inclusiveness of public school classrooms. For instance, Bredekamp and Copple (2009), has indicated that a good ECDE teacher is one who is able to listen to and acknowledge children's feelings and frustrations. According to Boyle-Baise and McIntyre (2008); Darling-Hammond (2010); Fullerton and Ruben (2011) and; Grossman and McDonald (2008), teacher education is currently faced with an urgent role to transform its pedagogy, structure and curriculum to better prepare teachers trainees to negotiate the ever changing landscape in educational practices and policies and that influence classrooms. To further, enhance the competence of the teacher of special need, student trainees are taken though a course called Collaborative Teaching in Inclusive Settings (TLSE 456). This is a 10 hour program undertaken before the official start of the semester so that preparation is given to the teacher in terms of field experience in an inclusive setting, and enhanced instruction in the areas of assistive technology, instructional accommodations and functional behavioral assessment, in which hands on which hands-on experiences were required. Collaborative Teaching in Inclusive Settings was conducted in such a way that, by the time the teachers comes out s/he will be able to prepare a variety of instructions that are able to accommodate many learners with special needs in class using vignettes(TLSE 456). These activities offered in project ACCEPT were used to supplement reading materials for the learners, discussions and lecture.

4.4.3 School Learning Environment

The study endeavoured to determine the extent to which the school learning environment influenced implementation of inclusive education in rural public primary schools within Uasin Gishu County. The respondents were asked to state the extent to which they agreed with the statements regarding their learning environments. This was

measured on a 5-point liker scale, ranging from not conducive (1) to very conducive (5). There was a trend between the conduciveness of the learning environment and the implementation of IE. At very low implementation of IE, there were roughly mixed reactions about conduciveness of the environment at the ECDE centres. As the conduciveness of the environment improved, the implementation of IE increased as well.

There was however low implementation of IE in situations where the environment was not conducive. For instance, when the degree of conduciveness of the school environment was 17.3% and 8.2%, the implementation of extent of implementation of IE was moderate and to great respectively as shown in Figure 4.3. The study findings indicated that there was likelihood that when the environment was more conducive, the implementation of IE was remarkable. In particular, the degree of implementation of IE was to a moderate and great extent, where its environment was more conducive as rated by 17.3% of the teachers. On the other hand, implementation of IE was to a great extent where its environment was more conducive and very conducive as rated by 8.2% and 9.2% of the teachers respectively (Figure 4.3). At low levels of implementation of IE, there was no distinction between the conduciveness of the environment, whether it was not conducive, less conducive or very conducive.

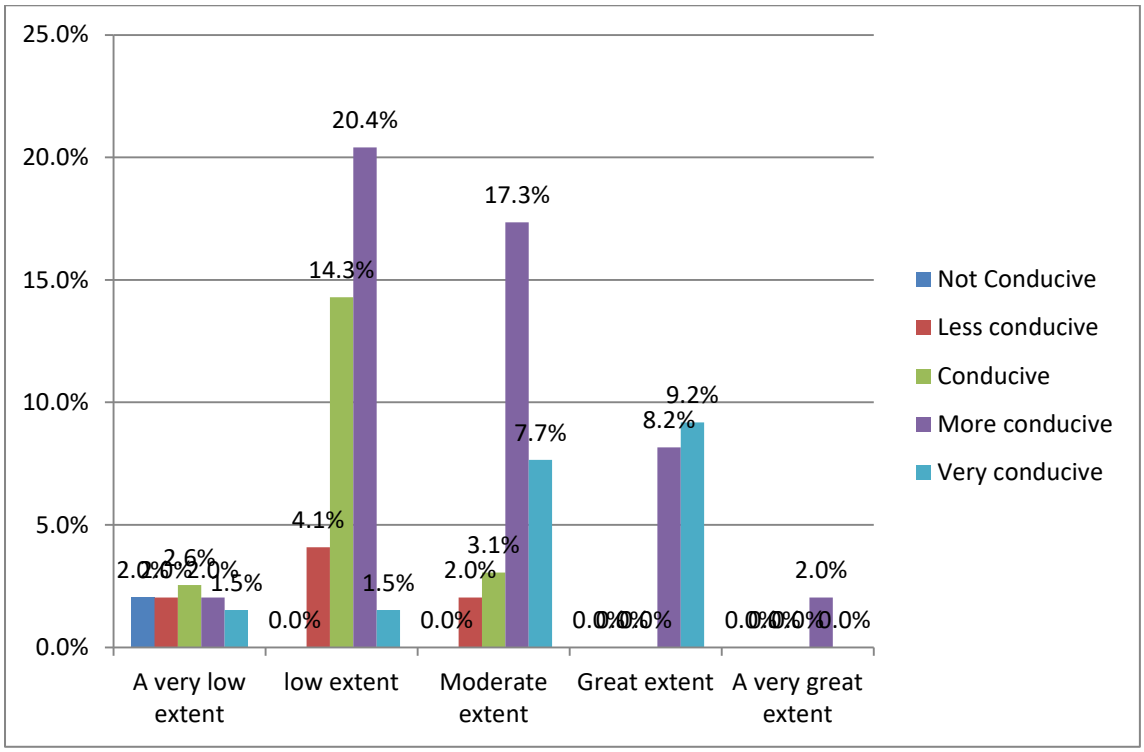


Figure 4. 3: Conduciveness of School Environment and Implementation of IE

4.4.4 Board of Managements' Committee Support

There was almostsimilar trends in the study findings with regard to the support from school's board of management (BOM). Again, there was likelihood that when the support of the BOM was more, then a certain degree of success in implementation of IE existed. For instance, in the implementation of IE to a moderate and very great extent, the teachers rated the degree of support of BOM as great as indicated by 18.4% and 11.7% seen in Table 4.5. At very low levels of implementation of IE, there was no much distinction between the support of the BOM (Table 4.5).

Table 4.5: Support of SMC and Implementation of IE

		Implementation of Inclusive education					
Support of BOM		A very low extent	low extent	Moderate extent	Great extent	A very great extent	**Total**
Very Low	N	4	7	0	0	0	11
support	%	2.0%	3.6%	0.0%	0.0%	0.0%	5.6%
Low	N	9	30	4	0	4	47
support	%	4.6%	15.3%	2.0%	0.0%	2.0%	24.0%
Moderate	N	3	8	11	0	0	22
support	%	1.5%	4.1%	5.6%	0.0%	0.0%	11.2%
Great	N	4	26	36	23	0	89
support	%	2.0%	13.3%	18.4%	11.7%	0.0%	45.4%
Very great	N	0	8	8	11	0	27
support	%	0.0%	4.1%	4.1%	5.6%	0.0%	13.8%
Total	N	20	79	59	34	4	196
	%	**10.2%**	**40.3%**	**30.1%**	**17.3%**	**2.0%**	**100.0 %**

4.5 Head Teacher Responses on Aspects of Inclusive Education

The head teachers were asked questions on three aspects that pertain to the IE. These aspects included the learning environment, the support of BOM and the extent to which the school or ECDE centre has implemented IE. The findings on these aspects of inclusive education are discussed here under.

4.5.1 School Learning Environment

The head teachers were asked about the situation of the school learning environment in their ECDE centres. In most of the ECDE centres, there was existence of moderate facilities to implement IE as indicated by 43.9% of the Head teachers. Approximately, 20.4% indicated that the physical facilities were moderately available. The research findings also indicated that, about 35.7% of the ECDE centres had no or inadequate physical facilities to implement IE. A higher proportion (85.7%) of the head teachers indicated that for the physical facilities that do exist, few improvements may be required

to make them appropriate for implementing IE (Figure4.4).

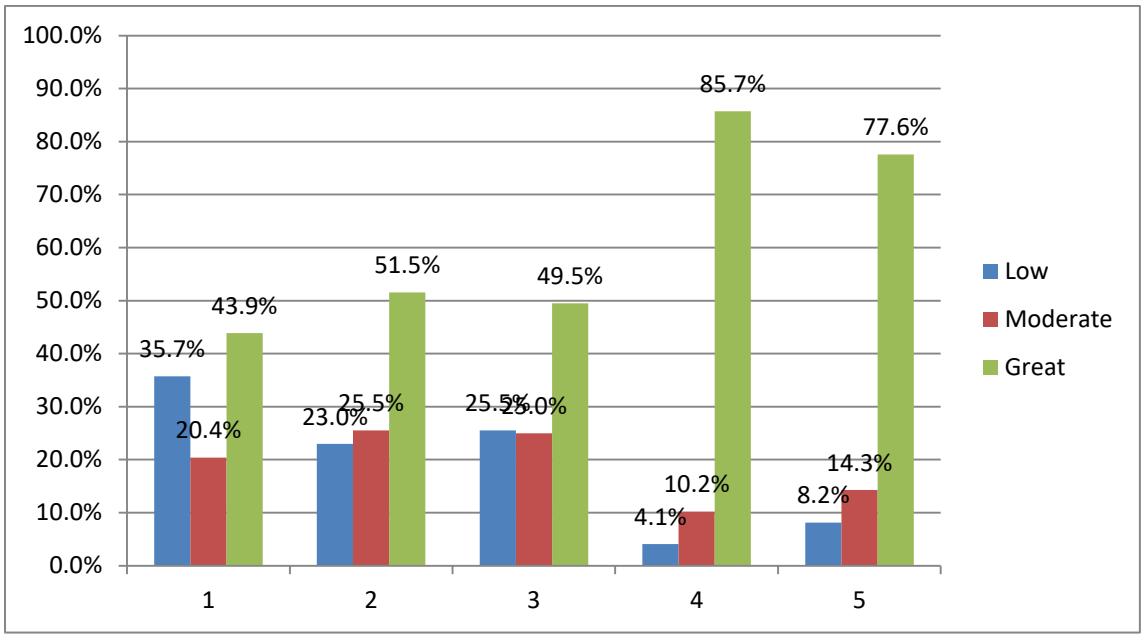


Figure 4. 4 School learning Environment

Out of the 43.9% of the head teachers who indicated that, to a great extent there existed the physical and learning environment for learners with special needs, 16.3% and 27.6% indicated that the physical and learning environment for learners with special needs were present to a great and very great extent. Similarly, out of the 85.7% of the headteachers who alluded to the fact that with adequate improvement of physical environment, inclusion of special need learners can be achieved, and hence implementation of IE, 13.3% and 72.4% indicated that the implementation will be to a great and very great extent(Table 4.6).

Table 4.6: School Learning Environment and Implementation of IE

	A very low extent		Low extent		Moderate extent		Great extent		A very great extent	
	N	N%	N	N%	N	N%	N	N%	N	N%
Presence of Physical and learning environment for learners with special needs	46	23.5	24	12.2	40	20.4	32	16.3	54	27.6
Teaching approaches are effective to needy learners	4	2.0	41	20.9	50	25.5	68	34.7	33	16.8
ECD teachers provide best environment for learners with special needs	12	6.1	38	19.4	49	25.0	73	37.2	24	12.2
Few improvements to be made in ECD centre	4	2.0	4	2.0	20	10.2	26	13.3	142	72.4
With Adequate improvement in physical environment Inclusion of special need learners can be achieved	**8**	**4.1**	**8**	**4.1**	**28**	**14.3**	**38**	**19.4**	**114**	**58.2**

4.5.2 Support from School's Board of Management

The support of the School's Board of Management (BOM)is one critical area that is important to the implementation of IE. The study findings revealed that the Implementation of IE receives support from the BOM in all aspects, except on issues such as the critical area of funding. In all instances, a higher proportion of the head teachers indicated that the implementation of IE received support in the following area; strategic planning for the future (58.2%), continued review of existing strategic plans (56.1%), implementation in full of the strategic plans (39.3%), moral support from the school management (67.3%) and accompanying concern for ECD (55.1%) (Figure 4.4). The lowest area of support is funding. Most of the ECDE centres scored lowly (32.1%)

in prioritizing funding for the support of the implementation of IE. The study results also indicated a relatively low (39.3%) score in the supports pertaining to full implementation of existing strategic plans. This is well resulting to lack of funds. This is one area that is lacking as far as implementing IE in ECDE centresis concerned (Figure 4.4).

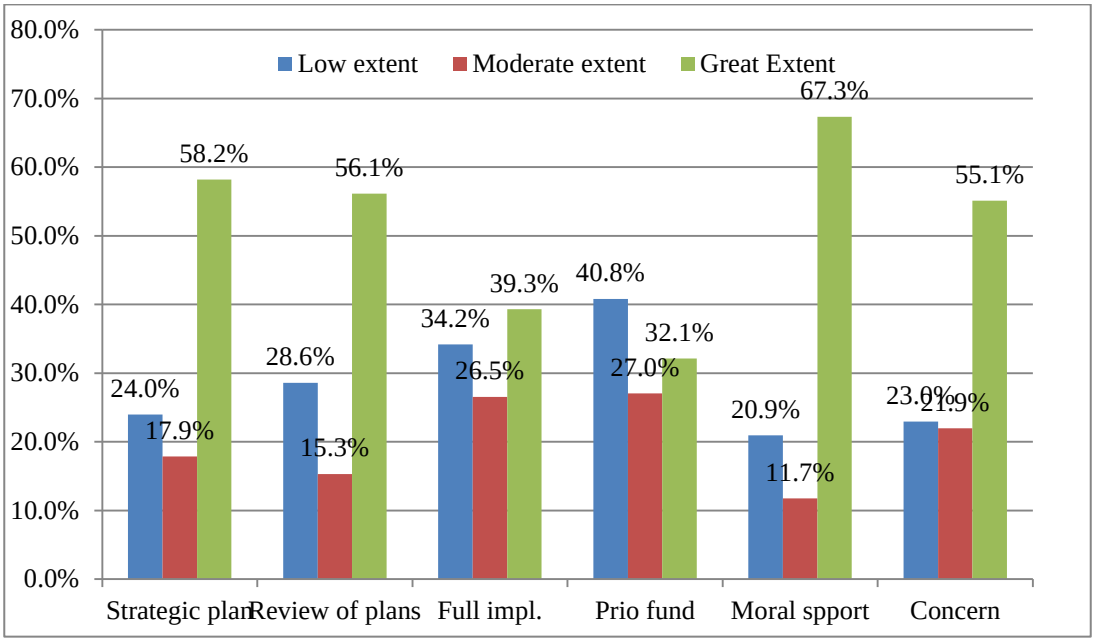


Figure 4.5: Areas of BOM Support towards Implementation

4.5.3 Implementation of Inclusive Education

An assessment of the implementation of IE was done through responses from the head teachers. In the study, there were many elements of implementation of IE that the head teachers respondent to. They included whether the children with disabilities were identified, whether assessment of the SNE pupils was initially and occasionally done and whether there are assistive technologies for such learners, among other elements of implementation of IE. The study results indicated that the ECDE centres were not doing well, however, they were not performing in some aspects of implementation. In

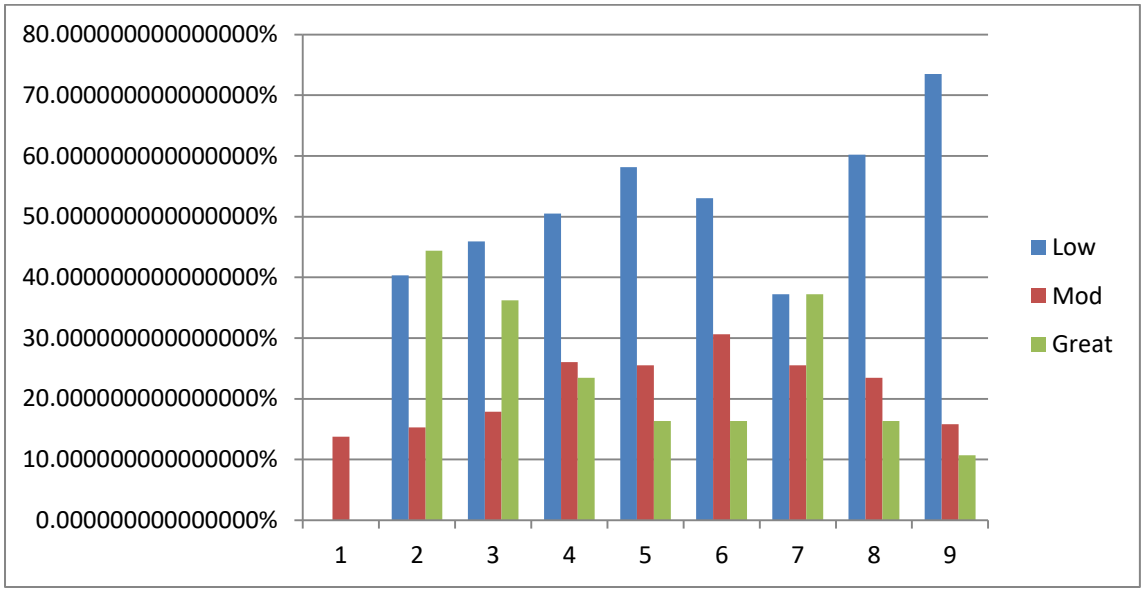
particular, much was done in identification (56.1%) of SNE learners in ECDE centre.

Table 4.7: Implementation of IE in ECDE Centres according to Head Teachers

	Very low extent		Low extent		Moderate extent		Great extent		A very great extent	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Identification of children with SNE in ECDE centre	28	14.3	31	15.8	27	13.8	59	30.1	51	26.0
Timely and professional Assessment of SNE pupils in ECDE centre	40	20.4	39	19.9	30	15.3	60	30.6	27	13.8
Professional teaching staff involved with SNE pupils	64	32.7	26	13.3	35	17.9	56	28.6	15	7.7
Developed ECDE centre according to the need of SNE children	40	20.4	59	30.1	51	26.0	30	15.3	16	8.2
Acquired Relevant assistive technologies for SNE learners	74	37.8	40	20.4	50	25.5	16	8.2	16	8.2
Continued development of ECDE according to the need of SNE pupils	57	29.1	47	24.0	60	30.6	24	12.2	8	4.1
Existence of Cooperation between multidisciplinary teams and teachers in handling SNE learners	42	21.4%	31	15.8%	50	25.5%	46	23.5%	27	13.8%
Active participation of parents in designing	59	30.1%	59	30.1%	46	23.5%	16	8.2%	16	8.2%
Accessibility and equipment of SNE learners with adapted technical appliances	**75**	**38.3%**	**69**	**35.2%**	**31**	**15.8%**	**16**	**8.2%**	**5**	**2.6%**

Assessment was equally good (44.4%) but not as good as the identification. Other area

that faired on relatively well included involvement with SNE pupils (36.2%) and cooperation that exist between multidisciplinary teams and teachers in handling SNE learners (37.2%), as shown in Table 4.7. The areas in which the ECDE centers were not doing well include the development of ECDE centers according to the needs of the SNE children (28.5%), acquisition of relevant assistive technologies for SNE learners and continued development of ECDE according to the need of SNE pupils and active participation of parents in designing each at 16.3% (Table 4.7). The study findings indicated that for proper implementation of inclusive education, cooperation of the various stakeholders is important. A study by Carnell and Tillery (2005) indicated that, when teachers special education teachers work side by side with their counterparts, that us general education colleagues within the classroom to deliver a merged system of classrooms amounts to collaboration.



This collaboration may be in the areas of instruction (co-teaching), planning and evaluation of special and ordinary students. This results in a raft of benefits such as creation of more opportunities, varied styles of teaching, avoidance of instructional

repetition, immediate feedback, and curriculum adaptations, which are often necessary for special needs students. In certain contexts, co-teaching has transformed to team teaching which Gately and Gately (2001) describe as the most challenging model analogous to a dance between two people. For countries who have implemented inclusive education, it started off when parents started agitating for education reforms to include children with disabilities. In South Africa, implementation of IE was realized when parent of children with syndrome realized that such children may make a better progress when raised up in ordinary family or school and community environments instead of in more isolated settings like special schools led to the first placements of learners with disabilities in mainstream schools in 1994 (Belknap et al., 1999; Schoeman, 1997; Schoeman 2000). The Board of Management of any given schools is a representative of the parents and its support in terms of advocacy and otherwise may go a long way in boosting the implementation of inclusive education shared. In addition, if collaboration is enhanced between different role players including professionals like educational psychologists in the inclusion process then the better.

Observation guide indicated that, there was evidence of support by the board of management of the ECDE centers. For some, there were available or made themselves available when called to come to school to attend on school issues. Some were always available and they worked closely with the head teachers to deliver on their mandates. Some played the role of sensitizing the parents to work hard in catering for their children. In some ECDE centers, the board of management has worked hard to ensure that the centre employs more extra teachers other than those employed by the county government. One head teacher remarked that:

> "the board of management chair was present in school ninety nine percent of the time"

Some of the BOM members were even participating in co-curriculum activities in the school. Through such efforts, ECDE professionals, researchers, policy makers and families of young children had worked tirelessly for more at least 30 years to promote early education which is of high quality for young children in inclusive early childhood programs (Bricker, 1995). On the other hand, implementation has been hastened researchers by publishing extensive information preschool practices, which are effective (Buysse & Hollingsworth, 2009; Guralnick, 2005; Odom et al., 1999). Through reauthorizations of the Individuals with Disabilities Education Act in combination with changing societal values, coupled with legislation have speeded up on opportunities for learning and development with a growing sense of belonging for all children. With all this in place inclusion in ECDE has gained widespread moral, empirical andlegal support. It is worth noting that, the methods used to implement inclusive programming, and in particular for young children, vary greatly across communities (e.g., Buysse, Skinner, & Grant, 2001; Odom et al., 1999). Not only does the overall implementation vary, but specifics features of the implementation if inclusive education may vary as well (NAEYC, 2009). For instance with regard to access differences may arise in areas such as ratio of children with disabilities to those without developmental delays, the duration that learners with disabilities spend with peers without developmental delays, and the types of professionals who provide the services (Guralnick, 2005; Odom et al., 1999).Differences in the way IE program is implemented may also arise from the personnel who are charged with the implementation. The program philosophy, the beliefs of the personnel and the methodology of implementation of the key component

of involvement varies. The latteris noted because children with disabilities who are enrolled in inclusive programs have experiences that differ on the extent to which they are involved in routine classroom activities and participate in the general education curriculum and model used for the provision of related services. The participation of parents in decision making, on where their children will be placed is also very important to successful implementation of IE. Studies in developing countries are yet to be done to inform what program characteristics influenced families and professionals' decisions about children's placements in inclusive or segregated settings (Hanson, 2001).Hurley and Horn (2010), indicate that many of the inclusion program features valued or not valued by members of the one-factor solution generated appear to be congruent with the defining features of access and meaningful participation

4.6 Association between Independent Variables and Dependent Variable

The study attempted to look at the influence of the variables under study in the study. Chi-square analysis was conducted to establish if there existed an association between the variables of interest and implementation of IE. The independent variables perception and knowledge and skills had two levels (ordinal); positive or negative and competent and not competent respectively, while the independent variables school environment and BOM support had five levels, with the school environment either not conducive or very conducive for learning and BOM support either very low or very high on both ends of the continuum. The dependent variable (the extent of implementation of IE) had five levels; A very low extent (1), low extent (2), Moderate extent (3), Great extent (4) and A very great extent (5). The ordinal categories of the independent variables were cross tabbed with those of the dependent variable to ascertain the influence of independent variables on the dependent variable.

The study findings indicated that there was no significant association between both the teacher's perception (χ^2=0.834; df=4; p=0.934) and teacher's competence (χ^2=0.758; df=4; p=.944) and IE. On the other hand, there was significant association between both the conduciveness of the school learning environment (χ^2=99.712; df=16; p=0.000) and the support of the BOM (χ^2=83.849; df=16; p=0.000) on the implementation of IE (Table 4.8).

Table 4.8: Association between Independent Variable and Implementation of Inclusive Education

Independent Variables	Pearson Chi-Square	df	p-value
Teacher Perception	0.834	4	0.934
Teacher Competence	0.758	4	0.944
School learning environment	99.712	16	0.000
Support of BOM	**83.849**	**16**	**0.000**

In this regard, the hypotheses that **"There is no significant association between perception of teachers and the implementation of inclusive education"** and "**There is no significant association between knowledge and skillsand the implementation of inclusive education"** are rejected and concluded that perception of the teacher and knowledge and skillsare significantly associated with the implementation of inclusive education in Uasin Gishu County .On the other hand, the hypotheses that **"There is no significant association between the learning environment and the implementation of inclusive education** and **"There is no significant association between support from the school board of management and the implementation of inclusive education"** are not rejected and concluded that learning environment and support from the school board of management are not significantly associated with implementation of inclusive education.

4.7 Contribution of Variables on Implementation of Inclusive Education

Throughregression methods, the analysis considered the contribution of each of the

variables in the study. Based on the R-square values, the support of the school management committee contributed the highest to the implementation of inclusive education in rural public ECD centers in Uasin Gishu County. This was followed by the school learning environment (19.0%) (Figure 4.6). The results indicated that, the correlation between the perception and the competence of the teacher was close to zero, and hence showed no contribution to the implementation of IE. This was expected since from the Chi-square results showed no association of the two variables with the implementation of IE. This has two implications; one is that there is no contribution or it is no longer an issue as far as implementation of IE is concerned. However, it is more likely because literature has proved that there is a sizeable contribution of the attitude of the teachers in implementation of IE.

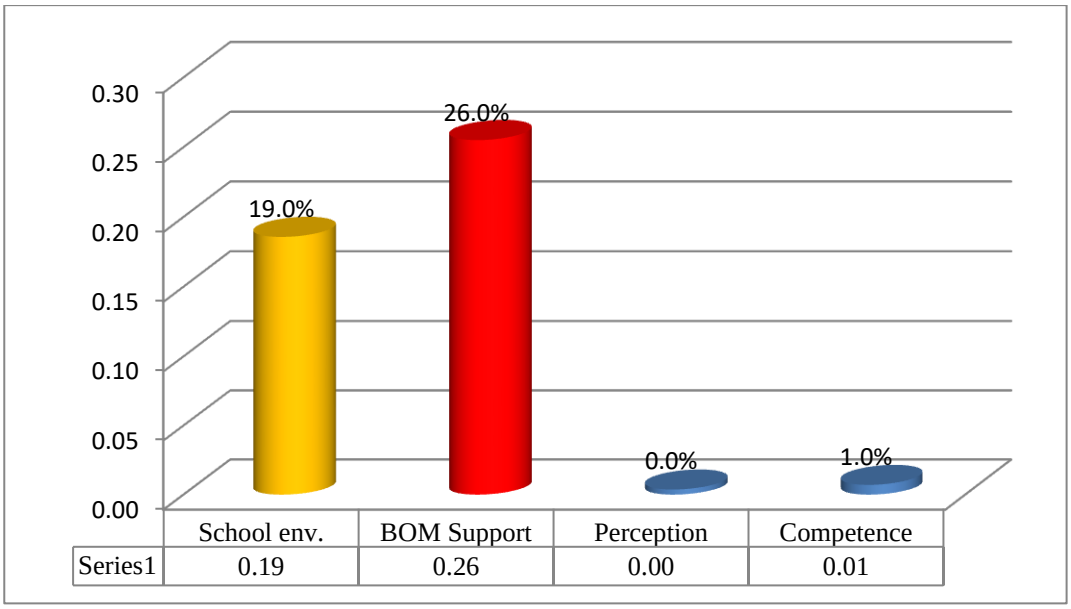


Figure 4.6: Contribution of Variable to Implementation of Inclusive Education

4.8 Challenges to Implementation of Inclusive Education

Therefore, the attitude of the teachers and their competence in implementing inclusive education is no longer an issue, since there are indications that a teacher possesses

positive attitudes towards the implementation of IE. In addition, they have the required competence required in the implementation of IE.The head teachers were asked to respond to some of the challenges that they experienced when implementing inclusive education. They were about six challenges identified by the head teachers. They included lack of teaching learning materials, inadequate infrastructure, lack of sufficient trained teachers, lack of funds, high enrolment and, lack of support from stakeholders. There were as many head teachers who mentioned lack of teaching/learning facilities as those who mentioned lack of funds as the two main challenges stood in the implementation of inclusive education. The study findings revealed that lack of teaching and learning materials such as syllabus and books, lack of teaching aid and other learning resources was a big challenge. In cases where the materials were available, they were inadequate. One head teacher remarked that:

> There is Non availability of assessment books, teachers having design without reference

The above findings resonate well with findings such as those by Eleweke and Rodda (2007) who indicated that lack of resources impedes implementation of IE. He adds that most ECDE centres in developing nations lack even the most basic or simple teaching and learning materials which can be produced locally. This means that, to effectively implement IE teaching and learning materials may be produced locally using home grown available materials. Observation guide indicates that some aspects that, the conditions of the classes and the reading desk and/or table, it was observed that in most of the ECDE centres, these resources were adequate and of reasonable standards. However, most of the established class rooms were not learner friendly. Those that were not user friendly were temporary, dilapidated building with no pathways, especially

those that lead to the toilets set aside for the disabled. This signals a barrier in implementation of inclusive education on adequacy oflearning resources, appropriate for the learners in terms of the degree of disability and age. In some of the centers, there were no learning resources because of insecurity while in other areas; there were no learning resources at all because of a combination of other factors. There were also cases of learning materials being available however inappropriate.

Lack of funds was another problem that stood in the way to successful implementation of inclusive education. Lack of funds is responsible for lack of the teaching and learning resources mentioned above. Lack of it also caused poor remunerations of teachers and hence low motivation and morale. The other challenge that also topped the list was lack of trained teachers and other supporting personnel. There was even lack of capacity building workshops to ensure sustained supply of properly trained staff at all times. Eleweke and Rodda (2007) indicated that adequately trained professionals are required for students with special needs. To solve this problem, Hossain (2004) and Kibria (2005) have suggested a way around this problem, which included selecting teachers using the quota criterion. Eleweke and Rodda (2007) adds that teachers of SNE also require support from other experts such as psychologists, radiologists, language and speech pathologists, interpreters and community support workers. When these challenges could be overcome, teachers could be more highly motivated and effective in stimulating educational environment for all the pupils in inclusive classrooms (Meng, 2008).Other challenges that the head teachers mentioned included high pupil population and teacher workload, lack of cooperation and support from the stakeholders such as the parents and community members, high pupils enrolment and increasing teacher

workload. On lack of cooperation and support, one head teacher remarked:

> "Parents negative attitude towards education and lack of parents' cooperation towards feeding program affected implementation of inclusive education"

The head teachers commented that there is need to strengthen learner integration in the ECDE centres. In effect structural improvement in terms of use of facilities is key to the implementation of IE. Infrastructural improvementsneed to be done,including creation of ramps to facilitate movement of learners on wheel chairs and toilets doors to be widened among others. Majority of the head teachers suggested the need to embrace inclusive learning while reviewing the curriculum into competent based so as to nurture the learners' potential. They also advised that provision of assistive devices should be given a priority.The assistive technologies were very few compared to the number of Youth with Disabilities in school and were limited to hearing aids, wheel chairs, crutches, white cane and prosthetics. The respondents were asked of other devices and there was no indication of other types of assistive technologies, implying that the assistive technologies available to Youth with Disabilities were inadequate.

Observation checklist revealed that prosthetic devices, wheel chairs, crutches and caliphers for the physically impaired were available but inadequate. The study findings concurred with studies done by Alade (2004) who found out that the training programs in Nigeria were highly specialized using sophisticated and expensive equipment and materials which could not be afforded by the trainees after the program. Another failure of the center based vocational rehabilitation program was the shortcoming of tackling the problem of re-integration of trainees back to their societies after the training period (Alade, 2004).

Observation checklist revealed that most schools (20) had disability unfriendly infrastructure; no ramps in sight, latrines were wide and dangerous. In addition, there was no water supply in the toilets for flashing. While play grounds were available, they were not levelled-had thorns, pebbles and potholes. Further, there were no sick bays seen in almost all the schools. TheiPad, computer and Braille were the frequently used assistive technologies in Kenya. In the learning and teaching process the iPad was not popular among teachers and students. The Braille machine was the most popular, second was the computer. In the learning and teaching process, large print devices optical and non -optical were displayed (Oira, 2016). Achieng (2015)observed that, in the majority of the schools for the visually impaired in Kisumu county, the same was used, in that the majority of the visually impaired students largely relied on the use of Braille and Mirror Magnifiers. But nevertheless, the assistive technologies were considered obsolete. The study locale had not been penetrated into by the modern technologies; consequently, the majority of the visually impaired students hardly benefitted from the advantages inherent in these technologies. Almost all SNE teachers interviewed were in agreement that the using of current assistive technologies by blind students was a paramount requirement for promoting learning independent study and active learner teacher interaction that was a precondition for quality academic performance (Achieng, 2015).

There were countless assistive technologies that had been created and many more continue being created (Ahmad 2015). The boundary between the general digital technologies such as iPads and assistive technologies was becoming blurred, Ahmad (2015). He stated ten justifications why technologies should be utilized in institutions.

They comprised capacitating teachers to individualize instructions, which gave students the opportunity to experience and grow at their own pace in a non-menacing environment; the necessity for students to be competent at obtaining and assessing, acquiring and passing information, enhancing the amount and the calibre of students' reasoning and writing using word processors, enhancing student objectives analysis and evaluation of issues, and permitting them to organize, analyze, interpret, develop and evaluate their work; giving support to students artistic expression; assisting students to get resources from outside the school, getting new and exciting learning experiences to the students, assuring the students when using computers because the computer would definitely become of paramount importance in the student lives; Generating openings or vacancies for students to do worthwhile work and expanding their productivity and efficiency. With this view therefore, teachers were duty bound to assimilate the good use of the current technology and further improve constructive teaching resources. He advanced further that the student population changes of those with special needs and those with disabilities and language issues, which had been witnessed in institutions in recent years, were having a profound impact of changing the learner's objectives, the teaching strategies and instruments of assessments for all students (Ahmad, 2015).

Boone and Higgins (2007) also advanced those Assistive technologies (AT).They noted that instruments could lessen learner's isolation and enabled them to become part of regular subject area classrooms. Consequently, Assistive technology became an instrument that provided a means for a person who was living with a disability or other issues to still participate in classroom activities (Lange, McPhillips, Muthern & Wylie, 2006). Ahmad (2015) Persisted that Assistive technology was usually talked about as

per technology levels such as being high-tech, middle-tech or low-tech. A low- tech assistive device or technology choice was often easy to use, it is cheap and usually did not require the use of power.

The device that is high-tech was normally complex; programmable and in most cases comprised elements which need computers electronics or microchips to get a process done. An application of technology could start from a voice input words processing machine (high-tech) to a modified pencil grip used by a student (low-tech) to assist when writing down something(ATEN, 2002). The other side of adaptive technologies spotlighted on the quality of the adaptive technologies individually in a way that related to the development of someone or in teaching as required (Judd-Wall, 1999). From the three generally, the principal one to the non-professional instructor was the instructionally required level. The individually required level was about the adaptive technological devices that were for the utilization of an individual learner, the recommendation and evaluation of adaptive were left to specialists (Ahmad, 2015).

Studies recently done on living standards of disabled people in Southern African countries indicated that only 15-20% of disabled individuals, who required assistive devices had access to them (Eide &Onderut, 2009). It was a challenge across the world to access appropriate assistive technologies. Additionally, many more challenges were encountered in the Low Middle Income Countries (LMIC'S). Overall, they advised that IE must be fully supported in terms of provision of assistive devices and capacity building. One head teacher said:

> "ECDE teachers need to be inducted on how to handle special needs learners and simple assessment tools on how to identify special needs learners"

Majority of the head teachers were optimistic that the inclusive ECDE curriculum was good, practical and suitable to the SNE learners, despite the inadequate content as alluded by a few, and will only be possible if teacher training and motivation is implemented. A case in point is the "Tayari" program whoseintentions to support inclusive learning in ECDE are good. The ECDE centres have tried their level best to implement IE. However, there was still needed more support from the county government, as remarked by one of the head teachers as follows:

> "County governments should give financial support, provide learning resources, and carry out routine visits, putting up friendly infrastructure"

According to the head teachers, the ECDE curriculum is standard and child centred and as such supports integrated learning. In terms of preparedness, majority of the head teachers agreed that their teachers are well prepared in their teaching work. There was evidence of the teachers as having prepared professional documents like schemes of work and lesson plans, teaching/learning aids, while a few others commented that their teachers are fairly prepared particularly for special needs learners by use of outdoor activities, remedial classes for slow learners, books, charts and other teaching tools such as schemes of work, lesson plan. The teachers were also prepared for individualized education program, curriculum design, text books and health assessment records. The policy towards inclusive education may be implemented but as Meng (2008) suggested, the needs of the schools, pupils and teachers ought to be met so that no side would be stressed in participating in the implementation of inclusive education. Sometimes many teachers have claimed that policies involved in implementing inclusion forced them to

enter areas they weren't sure of about or not interested in (Ali, Mustapha &Jelas, 2006).

4.9 Summary

The findings indicated that the special needs education (SNE) learners in inclusive classroom are not negligible and as such factors influencing implementation of inclusive education is something to focus on. Whereas, literature indicated perception and competence of the teacher as profound challenges towards implementation of inclusive education, there is much progress in terms of alleviating the same since the study findings only singled out school environment and SMC support as factors that explainedimplementation of inclusive education. Perception and competence of the teacher showed nocorrelation and this implied that such factors create synergy towards implementation of IE. The support of Board of management (BOM) and school management committees emerged critical to the implementation of IE in the ECD centres.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarized the study findings, conclusions, recommendations for action and suggestions for further study based on data analysis and subsequent findings. This was in relation to the aim of the study which was to determine the influence of teacher perception, competence, school environment and the support of BOM on implementation of IE. This chapter is divided into four sections –The first section presented a discussion of the research findings, the second part presented the summary of the research findings, and the third contain recommendations and lastly suggestions for more research.

5.2 Summary of Findings

5.2.1 Demographic Information

There are more male head teachers in headship than their female counterparts despite women having taken the role of teaching both with regular and special need education. The qualifications of the teacher comprise the first step towards implementation of inclusive education, not only in basic education but in ECDE. Whereas the curriculum is appropriate at this point in time, review of the curriculum need be as often as possible so that it addresses the needs of the economy and the citizenry. Lack of teachers is still an impediment into the implementation of IE and this ought to be looked into. This is justified because, despite the statistics of special need children being still small, the numbers are growing by the day and all the relevant government agencies should seek for sustainable ways of constant supply of SNE teachers and other cadres of personnel who offer service to SNE Learners.

5.2.2Teachers Perception

The absence of association between the teacher's perception and implementation of IE implied that the attitude of the teachers has so far grown into a pure positive one and as such, attitude is no longer an issue. The teachers have graduated to accepting and embracing Inclusive education in their respective settings. There is also relevance in competencies exhibited by the ECDE tutors due to specialized training and continued improvement in the profession.Indeed, observation guide indicated that, the attitude and motivation of the teachers in the performance of their teaching duties were positive most of the time. To support these, the teachers ought to be highly motivated to perform their duties with SNE learners.

5.2.2Teachers Knowledge and skills

The knowledge and skills of the teacher is a is of significant importance in the implementation of special needs education in regular schools. Adequately trained teachers have the requisite skills to interact and teach children with disabilities. Teachers who possesses specialized inter-personal skillsare better placed to be effective in their teaching. They are also able to control their classes by not being the centre of all classroom routines. 5.2.3Teachers Perception and School Environment

Due to these competencies, the teachers possess knowledge and adaptive skills to deal with various cases of SNE Learners in inclusive settings. The conduciveness of the environment enhances implementation of the IE. In learning environments where assistive technologies have been installed and working, then implementation may be deemed successful because, the tutors as well as the SNE will maximize the time set for learning. In addition, in such environments, the SNE learners will learn with ease and comfort as opposed to other learning environments where there is no assistive

technologies.

5.2.4Board of Management support

The support of the school board of management is also another critical area that should be the centre of focus. There are complaints in most of the centers because lack of teaching and learning resources was a number one challenge to successful implementation of IE.

The support from the BOM can have a multidimensional implication. In addition, the infrastructure advocated for SNL, also emphasizing the use of teaching and learning resources. The incorporation of feeding programs also served to support implementation of IE. The feeding program, like other SNE programs such as “Tayari” served to ensure that the ECDE dietary components are taken care of. The curriculum design in itself also has influence on the success of its implementation. Proper structuring of the curriculum, such that flows and its practicability will go a long way in ensuring its implementation. Emphasis on outdoor activities will guarantee active and fruitful learning. Not to forget the pedagogical issues in teaching. Individualized programs and how the teacher can seamlessly deliver the content delivery will improve learning outcomes. Assessment is yet anothercritical element of inclusive learning. The assessment that recognizes what is doable is much appropriate for inclusive learning than cognitive one. This ensures growth of the child in psychomotor and physical skills. Therefore, the ability to include needs assessment, classroom reorganization, and orientation, socialization of learners and implementation of Assisted Disability Learning (ADL) activities can go a long way in improving content delivery in inclusive settings. In addition, holistic learning may be achieved if special needs learners are grouped with

the normal children. Other resources like the training timetable, was used to fit all learners for effective learning outcomes. Regular counseling of parents of disabled children and capacity building among them to handle such children is also important since it may address the psychosocial concerns that the parents may be undergoing. Program initiative emanating from the community may come in handy in supporting the implementation of IE. Modern facilities that are user friendly are critical to implementation of IE.

The support of the BOMcannot be underestimated. There is need for committed and focused composition of BOM. This is very important having contributed greatly to the implementation of IE. Implementation of IE will be much of a success if the support comes from the BOM, and in particular the whole important aspect of funding. This part is however usually low thus prioritizing funding for the support of the implementation of IE is important. Some of the BOM members were even participating in co-curriculum activities in the school and this is an indicator of commitment.

5.2.5Challenges in Implementation of Inclusive Education

The significant association of the conduciveness of the school learning environment and the support of the BOMputs them as areas of intervention if implementation of IE should succeed in the near future. Support of the school management is contributingpositively to the implementation of inclusive education.

The challenges identified were almost the norm in many other sectors and included; lack of teaching learning materials, inadequate infrastructure, lack of sufficient trained teachers, lack of funds, high enrolment.Agreeably lack of support from stakeholders should be looked into in a bid to mobilize funds and resources to overcome these

challenges. Many school administrators have decried this challenge and it is up to the government and other stakeholders to take a proactive role in countering such challenges. Lack of teaching/learning facilities as those who mentioned lack of funds as the two main challenges stood in the way for implementation of inclusive education. Some aspects such as conditions of the classes and the reading desk and/or table, it was observed that in most of the ECDE centers, these resources were adequate and of reasonable standards. However, most of the established class rooms were not learner friendly. Those that were not user friendly were temporary, dilapidated buildings with no pathways, especially those that lead to the toilets set aside for the disabled. This signals a barrier in implementation of inclusive education.On adequacy and learning resources, appropriate for the learners in terms of the degree of disability and age. In some of the centers, there were no learning resources because of insecurity while in other areas; there were no learning resources at all. There were cases of learning materials available but were inappropriate.

Lack of funds was another problem that stood in the way to successful implementation of inclusive education. Lack of the teaching and learning resources mentioned above arises as a result of lack of funds. Lack of it also causes poor remunerations of teachers and hence low motivation and morale. The other challenge that also topped the list, were lack of trained teachers and other supporting personnel. Lack of capacity building workshops to ensure sustained supply of properly trained staff at all times. Other challenges such as high pupil population and teacher workload, lack of cooperation and support from the stakeholders such as the parents and community members, high enrolment of pupils and increasing teacher workload also need intervention. In effect

structural improvement in terms of use of facilities is key to the implementation of IE.

Infrastructural improvements that needed to be done included; creation of ramps to facilitate movement of learners on wheel chairs and widening of toilet doors, among others. There is optimism that the implementation of inclusive ECDE would be a success if there is sustained focus to improve on the aforementioned areas. The curriculum ought to be child centered and as such support integrated learning. Preparedness of the teachers through capacity building and self-awareness is good. Teachers are often well prepared in their teaching work. However, there was need to motivate them so that they work well. Preparation of professional documents like schemes of work and lesson plans, teaching/learning aids, while teaching a few others commented that their teachers are prepared fairly particularly for special needs learners by use of outdoor activities, remedial classes for slow learners, books, charts and other teaching tools such as schemes of work and lesson plan. The teachers were also prepared for individualized education programs, curriculum design, text books and health assessment records among others.

5.3 Conclusions

While the study zeroed in on specific factors that affect the implementation of inclusive education, there may be indeed other factors that influence it. However, it is apparent that:

(ii) teacher attitude is no longer an area of concern because the tutors are more ever exposed to children with special needs who interact with them daily in the course of their teaching duties. The teacher’s attitude has also turned to be positive, thanks to training, capacitation and exposure in inclusive classrooms.

(iii) teacher knowledge and skills is no longer an intervention area because the government and MOE has adequate trained teachers in the SNE field.

(iii) The factor of school environment and the support of the school boards of management is also an area of focus. It is evident that these two areas must be dealt with adequately for positive outcomes.

(iii) Mobilization of funds and learning resources, and in particular assistive technologies should be at the centre of focus as well.

5.4 Recommendations

Based on the study findings, the study makes the following recommendations:

(i) Teacher perceptions on IE and competencies to teach SNL have greatly improved. However, there is need to make this area sustainable while focusing on other two areas:

   a) Mobilization of teaching and learning resources, assistive technologies and all other relevant aids towards the success of SNL

   b) Seeking or generation of multiple sources of funds to enable successful implementation of SNE projects.

(ii) There is need for deliberate funding by county government, since ECDE is a devolved function.

(iii) There is also need for a legislation to govern ECDE centre, and this legislation ought to be in tandem with national goals and sustainable development goals.

5.5 Suggestions for Further Research

There are many other factors that affect implementation of IE. This study has only

focused on a few. A further study may consider “commitment” or the “motivation of the teachers in ECDE in implementing IE.

REFERENCES

Abebe, W. (2012). *School Management and Decision-making in Ethiopian Government Schools: Evidence from the Young Lives Qualitative School Survey*. (Working Paper 86), Young Lives: An International Study of Childhood Poverty.

Achieng, R. (2015). The role of assistive technologies on quality educational outcomes of student with visual impairment in Kisumu County, Kenya. *Journal of Humanities and Social Science, 20*(3), 39-50.

Adoyo, P. O., & Odeny, M. L. (2015). Emergent Inclusive Education Practice in Kenya, Challenges and Suggestions. *International Journal of Research in Humanities and Social Studies, 2*(6), 47-52.

Ahmad, F. K. (2015). Challenging exclusion: Issues and concerns in inclusive education in India. *Research paedia, 2*(1), 15-32.

Ainscow, M. (2012). Developing inclusive education systems: What are the levels for change? *Journal of Educational Change,6*(2), 109–124.

Ainscow, M. Booth, T. & Dyson, A. (2006a). *Improving schools, developing inclusion.* London: Routledge.

Ainscow, M., & Cesar, M. (2006). Inclusive education ten years after Salamanca: Setting the agenda. *European Journal of Psychology of Education, 21*(3), 231-238.

Ainscow, M., Booth, T., Dyson, A., Farell, P., Frankham, J., Gallannaugh, F., Howes, A., & Smith, R (2006). *Improving schools: Developing inclusion*. London: Routledge.

Alade, B. E. (2004). Community-based vocational rehabilitation (CBVR) for people with disabilities: Experience from a pilot project in Nigeria. *British Journal of Special Education 31*(3), 143 – 149.

Ali, M. M., Mustapha, R., & Jelas, M. Z. (2006). An empirical study on teachers' perceptions towards inclusive education in Malaysia. *International Journal of Special Education*, 21(3), 36-44.

Alvi, F., Usman, A.,& Amjad, A. (2018). The ecological systems theory: A dimension of understanding the changing youth in Pakistan. *Journal of the Research Society of Pakistan, 55*(1), 95-105.

Amdany, E. J. (2018). *Contextual Factors Affecting Boy-Child Retention and Participation in Public Secondary Schooling in Baringo County, Kenya*. Unpublished PhD Thesis, Moi University, Eldoret.

Arcaro, J. (1995). Quality in education an implementation handbook. St. Lucie Press, Delray Beach, Florida.

Artiles, A. J., & Kozleski, E. B. (2007). Beyond convictions: interrogating culture, history, and power in inclusive education. *Journal of Language Arts, 84*(4), 351-358.

Artiles, A. J., Kozleski, E. B., & Waitoller, F. R. (Eds.), (2011). *Inclusive education on five continents: Unravelling equity issues*. Cambridge, MA: Harvard Education Press.

Artiles, A. J., Kozleski, E., Dorn, S., & Christensen, C. (2006). Learning in inclusive education research: Re-mediating theory and methods with a transformative agenda. *Review of Research in Education, 30,* 65-108. ttp://dx.doi.org/10.3102/0091732X030001065

ATEN (Assistive Technology Education Network) (2002). *Assistive technology, unlocking human potential.* Seminole County Public Schools.

Avramidis, E., & Norwich, B. (2002). Teachers' attitudes towards integration/ inclusion: A review of literature. *European Journal of Special Education, 17* (2), 129-147.

Ayondele, O.J. (2011). *Self-concept and Performance of Secondary School Students in Mathematics.* DOI: 10.5539/jedp.v1n1p176

Bagnato, S. J., & Neisworth, J. T. (1994). A national study of the social and treatment "invalidity" of intelligence testing for early intervention. *School Psychology Quarterly, 9*(2), 81–102. https://doi.org/10.1037/h0088852

Bagree, S. & Lewis, I., (2013). *Teachers for all: Inclusive teaching for children with disabilities: International disability and development consortium*. Washington, DC.

Bailey, D. B., McWilliam, R. A., Buysse, V., & Wesley, P. W. (1998). Inclusion in the context of competing values in early childhood education. *Early Childhood Research Quarterly, 13*(1), 27-47.

Bailey, R. A. (2008). *Design of comparative experiments*.

Barnett, D. W., Macmann, G. M., & Carey, K. T. (1992). Early intervention and the assessment of developmental skills: Challenges and directions. *Topics in Early Childhood Special Education, 12*(1), 21–43.

Bean, R. M., Hamilton, R., & Zigmond, N. (1994). The changing roles of special education teachers in a full-time mainstreaming program: Rights without labels. Reading and Writing Quarterly: Overcoming Learning Difficulties, 10, 171-185.

Beattie, J.R. Anderson, R.J. & Antonak, R.F., (1997). Modifying attitudes of prospective educators toward students with disabilities and their integration into regular classrooms. *The Journal of Psychology 131*(3). 245–259. https://doi.org/10.1080/00223989709603512

Belknap, M., Roberts, R. & Nyewe, K. (1999). Informal Sources of Learning Support. In P. Engelbrecht, L. Green, S. Naicker and L. Engelbrecht (Eds),*Inclusive Education in South Africa,* (pp. 168–89). Pretoria: J. L. van Schaik.

Berhanu, G. (2008). Ethnic minority pupils in Swedish schools: Some trends in overrepresentation of minority pupils in special educational programs. *International Journal of Special Education, 23*(3), 17-29.

Blanton, L., Sindelar, P.T., Correa, V., Hardman, M., McDonnell, J., & Kuhel, K. (2003). *Conceptions of beginning teacher quality: Models of conducting research.* (COPSSE Document Number RS-6). Gainesville, FL: University of Florida, Center on Personnel Studies in Special Education.

Boone, R., & Higgins, K. (2007). The role of instructional design in assistive technology research and development. *Reading Research Quarterly, 42*(1), 135-139.

Booth, T. & Ainscow, M. (2002). *Index for Inclusion: Developing learning and participation in schools*. Brisol, CSIE.

Borg, J., Berman-Bieler, R., Khasnabis, C., Mitra, G., Myhill, W.N., & Raja, D.S. (2015). *Assistive Technology for Children with Disabilities: Creating Opportunities for Education, Inclusion and Participation - A discussion paper*. UNICEF & WHO.

Bouck, E., Flanagan, S., Miller, B. & Bassette, L. (2012). Technology in Action. *Journal of Special Education Technology*. doi - 10.1177/016264341202700404

Bouwer, A.C. & Du Toit, L.D. (2000). The At-Risk Disk: differential identification of intellectual and specific learning disability by teacher-teams in regular schools. *South African Journal of Education,* 20, 241-247.

Bowman, B.T. (2006). *School readiness and social-emotional development.* Washington, DC: National Black Child Development Institute

Boyle-Baise, M., & McIntyre, J. (2008). What kind of experience? Preparing teachersinPDSor community setting. In M. Cochran-Smith, S. Feiman-Nemser, & J. McIntyre (Eds.), Handbook *of research on teacher education: Enduring issues in changing contexts* (3rded., pp. 307-331). New York: Routledge.

Bradshaw, L. & Mundia, L. (2006). Attitudes to and concerns about inclusive education: Bruneian in-service and pre-service teachers. International *journal of special education, 21*(1), 35-41.

Bredekamp, S. & Copple, C. (2009). *Developmentally Appropriate Practice in Early Childhood Programs: serving children from birth through age 8*. (3rded.). Washington, DC: NAEYC.

Bricker, D. (1978). A rationale for the integration of handicapped and non-handicapped

preschool children. In M. Guralnick (Ed.), *Early intervention and the integration of handicapped and non-handicapped children* (pp. 3–26). Baltimore: University Park Press.

Bricker, D. (1995). The challenge of inclusion. Journal of Early Intervention, 19, 179-194. doi.org/10.1177/105381519501900301

Brierley, J. A. (2017). The role of a pragmatist paradigm when adopting mixed methods in behavioural accounting research. *International Journal of Behavioural Accounting and Finance, 6* (2), 140-154.

Brighton, C. M. (2003). The effects of middle school teachers' beliefs on classroom practices. *Journal for the Education of the Gifted, 27*(3), 177-206.

Bronfenbrenner, U. (1992). Ecological systems theory. In R. Vasta (Ed.), Six theories of child development: Revised formulations and current issues(pp. 187-249). Philadelphia: Kingsley.

Bruder, M. B., Brinckerhoff, J., & Spence, K. (1991). Meeting the personnel needs of P.L. 99-457: A model interdisciplinary institute for infant specialists. *Teacher Education and Special Education, 14*(2), 77-87.

Bruns, D. & Moogharreban, C. C. (2007). The gap between beliefs and practices: Early Childhood practitioners' perceptions about inclusion. *Journal of Research in Childhood Education 21*(3), 229-241.

Buck, G., Morsink, C., Griffin, C., Hines, T., & Lenk, L. (1992). Pre-service training: The role of field-based experiences in the preparation of effective special educators. *Teacher Education and Special Education, 15*, 108-123.

Buell, M. J., Hallam, R. &Gamel-McCormick, M. (1999). A survey of general and special education teachers' perceptions and in-service needs concerning inclusion. *International Journal of Disability, Development and Education, 46* (2), 143-156.

Bukvic, Z. (2014). Teachers competency for inclusive education. *The European Journal of Social and Behavioural Sciences, 23*(1), 1586-1590.

Burns, D. A., & Moogharreban, C. C. (2007). The gap between beliefs and practices: Early childhood practitioners' perceptions about inclusion. *Journal of Research in Childhood Education, 2*(3), 299-241.

Burton, J. (1997). Conflict Resolution: Towards Problem Solving. *Peace and Conflict Studies, 4 (*2). https://nsuworks.nova.edu/pcs/vol4/iss2/2

Buysse, V., & Hollingsworth, H. L. (2009). Research synthesis points on early childhood inclusion: What every practitioner and all families should know. In C. A. Peterson, L. Fox, & A. Santos (Eds.), Young exceptional children:

Monograph series No. 11. Quality inclusive services in a diverse society (pp. 18-30) Missoula, MT: DEC.

Buysse, V., Skinner, D., & Grant, S. (2001). Towards a definition of quality inclusive child care: Perspectives of parents and practitioners. *Journal of Early Intervention, 24*, 146-161.

Calitz, M., (2000). *Guidelines for the training content of teacher support teams.* Unpublished MEd dissertation, University of Stellenbosch, Stellenbosch.

Cardoso da Silva, H. Siqueira, A., Araújo, M. & Dornelas, J. (2018). Let's be Pragmatic: Research in Information Systems with Relevance and Rigor. *International Journal of Business Management and Economic* Research, *9*(4), 1314-1321.

Carnell, L., & Tillery, M. (2005). Preparing pre-service teachers for inclusive co-teaching: A new approach for mathematics methods instruction. *Teaching Children Mathematics, 11*(7), 384-389.

Cave, E. &Wilkinson, C. (1990). *Local Management of school. Some practical issues. Routledge.* London

Charema, J. (2007). From special schools to inclusive education: The way forward for developing countries south of the Sahara. *The Journal of the International Association of Special Education, 8*(1), 88-97.

Chelimo C. P. (2010). *The Effectiveness of Board of Governors in Curriculum Implementation in Secondary Schools in Keiyo District, Kenya*. Research Project for Moi University.

Chhabra, S. Srivastava, I. & Srivastava, R. (2010). Inclusive Education in Botswana: The Perceptions of School Teachers. *Journal of Disability Policy Studies 20*(4)., 219-228.

Christensen, J. (2016). A critical reflection of Bronfenbrenner's ecological development model. UK: Testing an ecological systems approach.

Cohen, R.J. & Swerdlik, M.E. (2005). *Psychological Testing and Assessment* (6th Edition). New York: McGraw Hill.

Cozby, P.C. (2007). *Methods in behavioural research,* (9th edition). New York: Mc Graw Hill.

Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approach,* (3rd ed). Thousand Oaks: Sage.

Creswell, J. W. (2013). *Qualitative Inquiry & Research Design Choosing among Five Approaches* (3rd ed.). Thousand Oaks, CA SAGE.

Creswell, J. W., & Plano, C. V. (2011). *Designing and Conducting Mixed Methods Research,* (2nd ed).Thousand Oaks: Sage.

Creswell, J., & Plano Clark, V. (2007). *Designing and Conducting. Mixed Methods Research*. Thousand Oaks, CA: Sage.

Croll, P., & Moses, D., (2000). Ideologies and utopias: educational professionals views of inclusion. *European Journal of Special Needs Education15*(1), 1-12.

Cross, A. F., Traub, E. K., Hutter-Pishgahi, L., & Shelton, G. (2004). Elements of successful inclusion for children with significant disabilities. *Topics in Early Childhood Special Education, 24,* 169–183.

Darling-Hammond, L. (2010). *The flat world and education: How America's commitment to equity will determine our future.* New York: Teachers College Press.

Darling-Hammond, L., & Bransford,J.(Eds.).(2005). *Preparing teachers for a changing world: What teachers should learn and be able to do.* San Francisco: John Wiley & Sons.

Davis, K. & Peters, S. (2011). *Moments of wonder, everyday events: Children's working theories in action.* Teaching Learning Research Initiative Final Report.

Davis, P., & Florian, L. (2004).*Teaching strategies and approaches for pupils with special educational needs: a scoping study*. Nottingham: DfES.

De Grauwe, A., Candy, L., Tiberius, B., Ledoka, P., Tsepa, M., Kayabwe, S.& Asiimwe, W. (2011). *Strengthening Local Actors: The Path to Decentralizing Education, Kenya, Uganda, and Lesotho, Paris*. International Institute for Educational Planning and UNESCO.

de Valenzuela, J.S., Copeland, S.R., Huaqing Qi, C. & Park,M. (2006). Examining Educational Equity: Revisiting the Disproportionate Representation of Minority Students in Special Education. *Exceptional children 72*(4), 425-441.

Department of Education, (1998). *Draft assessment policy of the general education and training phase.* Grades R-9 and ABET, Government Gazette, no. 19640, Government Printer, Pretoria.

Department of Education, (2008). *Quality education for all: Overcoming barriers to learning and development.* http://www.thutong.doe.gov.za

Department of Education. (1997). Quality education for all. Overcoming barriers to learning and development. Final NCSNET and NCESS report. Pretoria: Government Printers. Dey, I. (1993). *Qualitative data analysis: A user-friendly guide for social scientists*. London: Routledge.

Department of Education. (2001). *White Paper 6: Building an Inclusive Education and Training System.* Pretoria: Government Printers.

Division for Early Childhood Task Force on Recommended Practices. (1993). DEC recommended practices: Indicators of quality in programs for infants and young children with special needs and their families. Reston, VA: Council for Exceptional Children.

Donald, D. Lazarus, S., & Lolwana, P. (1997). *Educational Psychology in Social Context.* Cape Town: Oxford University Press.

Donald, D. Lazarus, S., & Lolwana, P. (1997). *Educational Psychology in Social Context* (2nd ed).Cape Town: Oxford University Press.

Donohue, D., & Bornman, J. (2014). The challenges of realising inclusive education in South Africa. *South African Journal of Education, 34*(2), 01-14.

Dunlap, G., White, R., Vera, A., Wilson, D., & Panacek, L. (1996). The Effects of multi-component, assessment-based curricular modifications on the classroom behaviour of children with emotional and behavioural disorders. *J Behav Educ*., 6 481-500.

Dunne, M., Kwame, A., & Sara, H. (2007). *School processes, local governance, and community participation: Understanding access, CREATE pathways to access*. Research Monograph No. 6, Brighton: Consortium for Educational Access, Transitions and Equity, University of Sussex

Dyson, A., Farrell, P., Polat, F., Hutcheson, G., & Gallannaugh, F. (2004). *Inclusion and Pupil Achievement*. Department for Education. University of Bristol.

Dyson, A., Kozleski, E. B. (2008). Disproportionality in special education: A transatlantic phenomenon. In Florian, L., McLaughlin, M. (Eds.), Disability Classification in Education. Issues and Perspectives. Thousand Oaks, CA: Corwin Press, 170–90.

Eide, A.H. & Onderut T., (2009). Assistive technologies in low income countries. In: Maclachdan M, Swartz, L, editors. *Disability and International development: Towards inclusive global health.* New York: Springer; 2009 pg. 149-161

Eleweke, J. & Rodda, M. (2007). The Challenge of Enhancing Inclusive Education in Developing Countries. *International Journal on Inclusive Education, 6*(2), 113-126.

Engelbrecht, P., Oswald, M., Swart, E., & Eloff, I. (2003). Including learners with intellectual disabilities: Stressful for teachers? *International Journal of Disability, Development and Education, 50,* 293–308.

Engelbrechta, P., Oswalda, M., Swarta, E., Kitchinga, A. & Eloff, I. (2005). Parents' Experiences of Their Rights in the Implementation of Inclusive Education in

South Africa. *University of Pretoria and Stellenbosch, 26*(4), 459–477. DOI: 10.1177/0143034305059021

Equal Opportunities Commission. (2012). *Equal Opportunities Awareness Survey 2012*. Hong Kong: EOC.

Eshiwani, G. S. (1993). *Education in Kenya since independence.* Nairobi. East African Educational Publishers.

Ettekal, A., &Mahoney, J. (2017). *Ecological Systems Theory.* The SAGE Encyclopedia of Out-of-School Learning. Research gate. doi: 10.4135/9781483385198.n9

Exley, S (2003). The effectiveness of teaching strategies for students with dyslexia based on their preferred learning styles. *British. J. Special Educ.*, 30(4), 213-219.

Fakudze, S., (2012). *Supporting teachers to implement inclusive education in Kwaluseni District, Swaziland*. (MEd thesis) UNISA, Pretoria.

Fallon, M., & Brown, S. (Eds.). (2010). Teaching inclusively in higher education. Charlotte, NC: Information Age Publishing Co.

Fallon, M., & Watts, E. (2001). Portfolio assessment: Navigating uncharted territory. *Teacher Education and Special Education, 24*(1), 50-57.

Fierros, E. G., & Conroy, J. W. (2002). Double jeopardy: An exploration of restrictiveness and race in special education. In D. J. Losen & G. Orfield (Eds.), *Racial inequity in special education* (pp. 39–70). Cambridge, MA: Harvard Education Press.

File, N., & Kontos, S. (1992). Indirect service delivery through consultation: review and implication for early intervention. *Journal of Early Intervention, 16*(3), 221-233.

Fisher, D., Frey, N., & Thousand, J. (2003). What do special educators need to know and be prepared to do for inclusive schooling to work? *Teacher Education andSpecial Education, 26*(1), 42-50.

Fives, H., & DiDonato-Barnes, N. (2013). Classroom test construction: The power of a table of specification. *Practical Assessment, Research and Evaluation, 18*(3):1-7.

Florian, L. (2005). 'Inclusion', 'special needs' and the search for new understandings. *Support for Learning, 20*(2), 96-98.

Florian, L. (2008). Special or inclusive education: future trends. British J. Special Educ., 35 (4), 202-208.

Florian, L., & Holly, L. (2010). Preparing teachers for inclusive education: Using inclusive pedagogy to enhance teaching and learning for all. *Cambridge Journal of Education, 40*(4), 369-386.

Ford, M. (2013) The *Impact of School Board Governance on Academic Achievement in Diverse States.* Theses and Dissertations. pg. 329. https://dc.uwm.edu/etd/329

Foreman, P. (2010). Disability and inclusive: Concepts and principles. In P. Foreman (Ed.), *Inclusion in action* (pp. 2-32).Melbourne: Nelson Thomson.

Forlin, C. (2010). Developing and implementing quality inclusive education in Hong Kong: Implications for teacher education. *Journal of Research in Special Educational Needs, 10*, 177–184.

Forlin, C., & Chambers, D. (2011). Teacher preparation for inclusive education: Increasing knowledge but raising concerns. *Asia-Pacific Journal of Teacher Education, 39*(1), 17–32.

Forlin, C., Chambers, D., Loreman, T., Deppeler, J., & Sharma, U. (2013). Inclusive Education for Students with Disability: A review of the best evidence in relation to theory and practice. Report to the Australian Government Department of Education, Employment and Workplace Relations & Australian Research Alliance for Children and Youth, Canberra. DOI: 10.13140/RG.2.1.4255.8166.

Frances, L.M., Yeung, A.S., Tracey, D., & Barker, K. (2015. Inclusion of children with special needs in early childhood education. *Topics in Early Childhood Special Education 35*(2), doi: 10.1177/0271121414566014.

Friend, M. (2011). *Special education: Contemporary perspectives for school professionals*(3rd ed). Upper Saddle River, NJ: Merrill/Pearson Education.

Fullerton,A.,& Ruben,B.(2011).Development and design of a merged secondary and special education teacher preparation program. *Teacher Education Quarterly, 38*(2), 27-44.

Gachago, V. W. (2018). *An Exploration of Inclusive Education for Children with Special Educational Needs in Kenya Twenty Years After The Salamanca Statement*. Unpublished PhD Thesis, Nottingham Trent University, Nottingham.

Gately, S. E., & Gately, F. J. (2001). Understanding Coteaching Components. *TEACHING Exceptional Children, 33*(4), 40–47.

Gettinger, M. (1993). Effects of Error Correction on Third Graders' Spelling. The *Journal of Educational Research 87*(1), 39-45.

Gettinger, M., Elliott, S. N., & Kratochwill,T. R. (Eds.). (1992). Preschool and early childhood treatment directions. Hillsdale, NJ: Lawrence Erlbaum.

Gettinger, M., Stoiber, K. C., Goetz, D., & Caspe, E. (1999). Competencies andTraining Needs For Early Childhood Inclusion Specialists. *Teacher education and Special education, 22*(1), 41-54.

Gichuru, F. M. (2014). *Classroom Assessment Practices in Kenyan Secondary Schools: Teacher Perspective*. Unpublished MEd Thesis, The University of Nairobi, Nairobi.

Glazzard, J. (2011).Perceptions of the barriers to effective inclusion in one primary school: Voices of teachers and teaching assistants. *Support for Learning 26*(2), 56 – 63.

GOK (2007). *Kenya Vision 2030 Agenda.* Government Printer: Nairobi, Kenya

Gordon, P., Kerzner, L., Sheldon, T., & Hansen, E. (2007). Assistive Devices in Canada: Ensuring Inclusion and Independence. Ontario: ARCH Disability Law Centre, Toronto.

Grant, C., & Gillette, M. (2006).A candid talk to teacher educators about effectively preparing teachers who can teach everyone's children. *Journal of Teacher Education, 57*, 292-299.

Grauwe, H. (2007). Transforming School Supervision into a Tool for quality Improvement. *International Review of Education 53:* 709 – 714.

Grossman, P. (2005). Research on pedagogical approaches to teacher education. In M. Cochran-Smith & K. Zeichner(Eds.), *Studying teacher education* (pp. 425-476).Mahwah, NJ: Lawrence Erlbaum.

Grossman, P., & McDonald, M. (2008). Back to the future: Directions for research in teaching and teacher education. *American Educational Research Journal, 45*(1), 184-205.

Grossman, S., (2004). Classroom behaviour management for diverse and inclusive schools. Retrieved on 09 August 2017 from www.recooperar.org

Guba, E. G. (1990). The alternative paradigm dialog. In E. G. Guba (Ed.), *The paradigm dialog* (p. 17–27). Sage Publications, Inc.

Guba, E. G., & Lincoln, Y. S. (2005). *Paradigmatic Controversies, Contradictions, and Emerging Confluences.* In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (p. 191–215). Sage Publications Ltd.

Guralnick, M. J. (2005). An overview of the developmental systems model for early intervention. In M. J. Guralnick (Ed.), *The developmental systems approach to early intervention* (pp. 3-28) Baltimore: Brookes.

Gyimah E.K (2006). Teachers' attitudes to inclusive education in Ghana. (PhD Thesis), University of Leeds, United Kingdom.

Hanson, M. J., Horn, E., Sandall, S., Beckman, P., Morgan, M., Marquart, J. (2001). After preschool inclusion: Children's educational pathways over the early school years. *Exceptional Children*, 68(1), 65-73.

Hattie, J. A., & Brown, G. T. L. (2010). Assessment and evaluation. In C. Rubie-Davies (Ed.), *Educational psychology: Concepts, research and challenges* (pp. 102-117). Abingdon, UK Routledge.

Hitchcock, C., Meyer, A., Rose, D., & Jackson, R. (2002). Providing new access to the general curriculum: Universal design for learning. *Teaching Exceptional Children, 35,* 8-17.

Hossain, D. (2004). Inclusive education: context Bangladesh. *Journal of the Faculty of Arts, 6* (1), 22-31.

Hsieh, W. H., & Hsieh, C. M. (2012). Urban early childhood teachers' attitudes towards inclusive education. *Early Child Development and Care, 182,* 1167–1184.

Huff, B., & Slaton, E. (1997). Expanding the family circle. *Reading Today's Youth, 1*(3), 2-3.

Hulett, K. (2009). *Legal aspects of special education.* Upper Saddle River, NJ: Merrill Pearson Education.

Hull, J.R., (2005). *General classroom and special education teachers' attitudes toward and perceptions of inclusion in relation to student outcomes*. Doctoral dissertation, from http://www.etd.fcla.edu/WF/WFE0000046/Hull_jen

Hurley, J. & Horn, E. (2010). Family and Professional Priorities for Inclusive Early Childhood Settings. *Journal of Early Intervention, 32*(5), 335-350.

Idol, L. (2006).Toward inclusion of special education students in general education. *Remedial and Special Education, 27*(2), 77-94.

Ineke, M., Mariya, M., Mireille, K., & Sabine, K. (2018). Promoting Inclusive Education: The Role of Teachers' Competence and Attitudes. *Insights into Learning Disabilities, 15*(1), 49-63.

Janmohamed, N. S. (2012). *Challenges Facing Implementation of Inclusive Education Programme in Public Primary Schools, Parklands District, Nairobi, Kenya*. Unpublished PGDE Project, The University of Nairobi, Nairobi.

Jenkins, A. A., Pateman, B., & Black, R. (2002).Partnerships for dual preparation in elementary, secondary, and special education.

Johnson, E. (2008). *Ecological Systems and Complexity Theory: Toward an Alternative Model of Accountability in Education*. Oakland University (USA).

Jones, R. (2004). The science and meaning of the self. doi.org/10.1111/j.1465-

5922.2004.00454.x

Jordan, A. & Stanovich, P. (2003) Teachers' personal epistemological beliefs about students with disabilities as indicators of effective teaching practices. *Journal of Research in Special Educational Needs, 3.* Available: http://www.nasen.org.uk.

Jordan, A. (2007). The development of teachers' epistemological beliefs and its impact on teaching practices. SSHRC final report. File no. 410-2003-574.

Jordan, A., & Stanovich, P. (2004).The beliefs and practices of Canadian teachers about including students with special needs in their regular elementary classrooms. *Exceptionality Education Canada, 14*(2-3), 25-46.

Jordan, A., Glenn, C., & McGhie-Richmond, D. (2010). The SET project: Effective teaching and its relationship to teachers' epistemological beliefs and inclusive teaching practices. *Teaching and Teacher Education, 26,* 259-266.

Judd-Wall, J. (Last accessed September 1999). Necessary categorizations. Retrieved from: http://www.aten.scps.k12.fl.us/.

Kabiaru, R., N.(2013). Analysis of the roles of school management Committees in the implementation of inclusive Education in public primary schools in Kasarani District, Kenya. University of Nairobi, Nairobi, Kenya

Kapen, S. 2011). *How to be a Wise Leader. Principles that Work*. Nairobi. Paulines Publications.

Katumbi, M. (2006). Effectiveness of School Board in Performance Roles, Makueni District: Unpublished M.E.D Project, Kenyatta University.

Kems, G. M. (1992). Helping professionals understand families. *Teacher Education andSpecial Education, 15,* 49-55.

Kenya Institute of Education. (2008). *Teacher certificate in ECDE syllabus*. Nairobi: KIE.

Kibria, G. (2005). Inclusion education and the developing countries: The case of Bangladesh. *The Journal of the International Association of Special Education, 6*(1), 43-47.

Kim, J. R. (2011). Influence of teacher preparation programmes on preservice teachers' attitudes toward inclusion. *International Journal of Inclusive Education, 15*(3), 355 – 377.

Kimu, (2012). Inclusive education in modern world. Nairobi: Trinstar publication.

Kindiki, J. N. (2009). Effectiveness of communication on students' discipline in secondary schools in Kenya. *Educational Research and Review*,*4* (5), 252-259.

Kingoina, J.K., Ngaruiya, B.N., & Mobegi, F. O. (2017). The Role of Boards of Management as a Determinant of Pupils' Academic Performance in Public Primary Schools in Marani Sub-County, Kenya. *International Journal of Scientific Research and Innovative Technology 4* (6) June 2017

Kingston, N., & Nash, B. (2011). Formative assessment: A meta-analysis and a call for research. *Educational Measurement: Issues and Practice, 30*(4):28-37.

Kinyua, K., & Odiemo, L. (2018). Validity and reliability of teacher-made tests: Case study of year 11 physics in Nyahururu District of Kenya. *African Educational Research Journal, 2*(2), 61-71.

Kothari, C.R. (2004). *Research Methodology: An Introduction.* New Delhi: New Age International (P) Ltd Publishers.

Kothari, C.R. (2008). *Research Methodology and Techniques,* 2nd Edition. New Age International Ltd. Publisher, New Delhi: India.

Koul, B. N. (1992). *Research for Distance Education*. Indira Ghandi National Open University.

Kristensen, K., Loican-Omagor, M. & Onen, N. (2009). The inclusion of learners with barriers to learning and development into ordinary school settings: a challenge for Uganda. *British Journal of Special Education, 30*(4), 194-201.

Kuester, V. M. (2000). *10 Years on: Have teacher attitudes toward the inclusion of students with disabilities changed?* Memorial University of Newfound land, ISEC.

Kunter, M., Klusmann, U., Baumert, J., Richter, D., Voss, T., & Hachfeld, A. (2013). Professional competence of teachers: Effects on instructional quality and student development. *Journal of Educational Psychology, 105*, 805–820.

Kusuma, A., & Ramadevi, K. (2013). Inclusive Education-Teacher Competencies. *Shanlax International Journal of Education, 1*(3), 24-40.

Lancioni, G., Sigafoos, J., O'Reilly, M.F & Singh, N.N. (2013). *Assistive Technology. Interventions for Individuals with Severe/Profound and Multiple Disabilities.*Autism and Child Psychopathology Series.

Lange, A. A., McPhillips, M., Mulhern, G., & Wylie, J. (2006). Assistive software tools for secondary- level students with literacy difficulties. *Journal of Special Education Technology, 21*(3), 13-22.

Langford, R. (2005). *Discourses of the Good Early Childhood Educator in Professional Training: reproducing marginality or working toward social change*. PhD dissertation, University of Toronto, Canada.

Le Fanu, G., (2005). *The inclusion of inclusive education in teacher-training: Issues of curriculum, Pedagogy and Staffing.* University of Goroka, Bristol.

Lesar, S., Benner, S. M., Habel, J., & Coleman, L. (1997).Preparing general education teachers for inclusive settings: A constructivist teacher education program. *Teacher Education and Special Education, 20*(3), 204-220.

Leung, C.H. & Mak, K. (2010). Training, understanding, and the attitudes of primary school teachers regarding inclusive education in Hong Kong. *International Journal of Inclusive Education 14*(8), DOI: 10.1080/13603110902748947

Lewin, T. (2011, July21).*Training of teachers is flawed, study says.* New York Times. Retrieved from ttp://www.nytimes.com/2011/07/21/education/21teaching.html

Leyser, Y., Kapperman, G., & Keller, R. (1994). Teacher attitudes toward mainstreaming: a cross-cultural study in six nations. *European Journal of Special Needs Education, 9*(1), 1–15.

Lieber, J., Horn, E., Palmer, S., & Fleming, K. (2008). Access to the general curriculum for preschoolers with disabilities. Children's School Success. *Exceptionality, 16,* 18-32.

Loreman, T. & Harvey, D., (2005). *Inclusive education. A practical guide to supporting diversity in the classroom*. Routledge, Abingdon.

Loreman, T., & Deppeler, J. (2002).Working towards full inclusion in education. *The National Issues Journal for People with a Disability, 3*(6), 5-8.

Loreman, T., Forlin, C., & Sharma, U. (2007). An International Comparison of Pre-service Teacher Attitudes towards Inclusive Education.*Disability Studies Quarterly*, 27 (4), 1-13.

Loreman, T., Forlin, C. & Sharma, U. (2014). Measuring Indicators of Inclusive Education: A Systematic Review of the Literature", *Measuring Inclusive Education* (*International Perspectives on Inclusive Education, Vol. 3*), Emerald Group Publishing Limited, pp. 165-187. https://doi.org/10.1108/S1479-363620140000003024

Lorentzen, I.J. (2013). The Relationship between School Board Governance Behaviours and Student Achievement. University of Montana ScholarWorks at University of Montana.

Luciak, M.,& Biewer, G. (2011). *Equity and Inclusive Education in Austria: A Comparative Analysis.* Research gate, (pp.17-44). Harvard Education Press

MacMillan,D. L., Gresham, F.M., & Forness, S.R. (1996). Full inclusion: An empirical perspective. doi.org/10.1177/019874299602100204

MacMillan, J.H.,& Schumacher, S. (2001). *Research in Education. A Conceptual*

Introduction. 5th Edition, Longman, Boston.

Mahlo, D. (2017).*Teaching learners with diverse needs in the foundation phase in Gauteng Province, South Africa: Department of Inclusive Education*. University of South Africa, Pretoria, Special Issue-Student diversity: Sage

Mahlo, F.D., (2012). *Experiences of learning support teachers in the foundation phase, with reference to the implementation of inclusive education in Gauteng.* (Doctoral Thesis), University of South Africa, Pretoria.

Majoko, T. (2019). Teacher Key Competencies for Inclusive Education: Tapping Pragmatic Realities of Zimbabwean Special Needs Education Teachers. *SAGE Open. 9*. 215824401882345. 10.1177/2158244018823455.

Mbiti, J.S. (1980). The encounter of Christian faith and African religion. *Christian Century 97*(27), 817-820.

McGhie-Richmond, D., Underwood, K. & Jordan, A. (2007). *Developing Effective Instructional Strategies for Teaching in Inclusive Classrooms.* Developing Effective Instructional Strategies for Teaching in Inclusive Classrooms, 17

McLaughlin, M. J., & Jordan, A. (2005). Push and pull: Forces that are shaping inclusion in the United States and Canada. In D. Mitchell (Ed.), *Contextualizing inclusive education: Evaluating old and new international perspectives* (pp. 89-113). London: Routledge.

McMillan, J.H., & Schumacher, S. (2001). *Research in education: A conceptual introduction.* 5th ed. Addison-Wesley Longman, New York.

Melanie, N. (2014). Inclusive research and inclusive education: Why connecting them makes sense for teachers' and learners' democratic development of education, *Cambridge Journal of Education, 44*(4), 525-540.

Meng, D. (2008). The attitudes of primary school teachers toward inclusive education in rural and urban China. *Frontiers of Education in China, 3*(4), 473-492.

Ministry of Education (2008). *Circular on Free Secondary Education*. Nairobi: Government of Kenya.

Mitchell, D. (2008). *What Really Works in Special and Inclusive Education: Using evidence-based teaching strategies*. London: Routledge.

Moberg, S., Zumberg, M., & Reinmaa, A. (1997). Inclusive education as perceived by prospective special education teachers in Estonia, Finland, and the United States. *Journal of the Association for Persons with Severe Handicaps, 22*(1), 49-55.

MOEST (2005). *Education Sector Development Programme (ESDP-III) Programme Action Plan*. Addis Ababa: Ministry of Education

MOEST, (2003) *Education for all (EFA) in Kenya: a National handbook for 2002 and beyond.*

Mohajan, H.K. (2018). Qualitative Research Methodology in Social Sciences and Related Subjects. *Journal of Economic Development, Environment and People,7*(01), 23-48.

Morgan (2013). Pragmatism as a Paradigm for Social Research. sagepub.com/journalsPermissions.nav, DOI: 10.1177/1077800413513733

Motitswe, J., 2012, Teaching and learning methods in inclusive classrooms in thefoundation phase, viewed 10 May 2018*, from http://hdl.handle.net/10500/6037

Mugenda, O., M. & Mugenda, A. G. (2003). *Research Methods: Quantitative and Qualitative Approaches*. Nairobi: Acts Press.

Mukhopadhyay, S., Molosiwa, M. & Moswela, E. (2013). Teacher trainees' level of preparedness for inclusive education in Botswana schools: Need for change', *International Journal of Scientific Research 2*(2), 51–58.

Mumo, S. N. (2004). *Education Administration Management Planning and Curriculum Development*. PAC/M/508.Secondary Schools. Nairobi: Government Printers.

Murphy, P. K., Delli, L. M., & Edwards, M. N. (2004). The good teacher and good teaching: Comparing beliefs of second grade students, pre-service teachers, and in-service teachers. *The Journal of Experimental Education, 72*, 69–93.

Murray. (2003). *Blending Qualitative and Quantitative Research Methods in Theses and Dissertations*. Thousand Oaks, CA: Corwin Press.

Muthengi, J.M. (2015). *Individual factors influencing effectiveness of board of Management members in management of human resources in Secondary schools in Kyuso district, Kitui county, Kenya*. University of Nairobi, Nairobi, Kenya.

Mutua, B. M. (2012). *Nature and Practice of Test Wiseness: The Case of Kenyan Schools*. Unpublished MEd Thesis, The University of Nairobi, Nairobi.

Naidoo, J. P. (2005). *Educational Decentralization and School Governance in South Africa: From Policy to Practice*. Paris: International Institute for Education Planning, UNESCO

Najjingo, H., (2009). *Challenges of accessing all-inclusive education services by children with disabilities (cwds): A case of Mijwala sub-county sembabule district.* Makerere University: Sembabule.

Nataša P., Theo, W. & Mainhard, T. (2011). *Competence as a Basis for Teacher Education: Comparing Views of Teachers and Teacher Educators in Five Western Balkan Countries.*

Neuman, W. (2006). *Social Research Methods: Qualitative and quantitative approaches* (6th Ed).Boston: Pearson.

Ngechu, M. (2004). *Understanding the Research Process and Methods: An Introduction to Research Methods*. Nairobi, Acts Press.

Ngigi J. (2007). *Effectiveness of Board of Managements in the Management of Public Secondary Schools*. Kericho District.

Ngugi, M.W. (2002). *Introduction to Inclusive Education.* Nairobi: KISE Publishers.

Norwich, B. & Lewis, A. (2001) A critical review of evidence concerning pedagogic strategies for pupils with special educational needs. *British Educational Research Journal*, *27(*3), 313–29.

Nowacek, E. J., & Blanton, L. P. (1996). *A pilot project investigating the influence of a collaborative methods course on pre-service elementary education teachers.* Teacher Education and Special Education, 19, 298-312.

Noyes, J., Booth, A., Moore, G., Flemming, K., Tunçalp,Ö., & Shakibazadeh, E.(2019). Synthesising quantitative and qualitative evidence to inform guidelines on complex interventions: clarifying the purposes, designs and outlining some methods *BMJ Global Health, 4*(1), doi:10.1136/bmjgh-2018-000893

Nzoka (2014). School Management and Students' Academic Performance: How Effective are Strategies being Employed by School Managers in Secondary Schools in Embu North District, Embu County, Kenya? *International Journal of Humanities and Social Science 4*(9).

Oakes, J.& Saunders, M. (2002). *UCLA's Institute for Democracy, Education and Access*.

Odada, E.J. & Otieno, O.J. (1990). *Socio – Economic profiles*. Nairobi: Reato.

Odom, S. L., Horn, E., Marquart, J., Hanson, M., Wolfberg, P., Beckman, P., et al. (1999). On the forms of inclusion: Organizational context and individualized service models. *Journal of Early Intervention, 22*, 185-199.

Ogola, C.A. (2016). *Influence of Board of Management strategies on students' performance at Kenya Certificate of Secondary Education in Suna West, Migori County, Kenya.* University of Nairobi, Nairobi, Kenya

Oira, M. (2016). *Use of modern assistive technology and its effects on educational achievement of Students with visual impairment at Kibos special secondary school Kisumu County, Kenya.* (Masters thesis). Kenyatta University.

Okendu, J.N.(2012). The influence of instructional process and supervision on academic performance of secondary school students of Rivers State, Nigeria. *Academic Research international Journal 3*(1), 147-151.

Onderi, H., & Makori, A. (2013). Secondary school principals in Nyamira County in Kenya: Issues and challenges. *EducationalResearch International, 1(*1), 67-90

Ong'enge, D.H. (2016). *Influence of Board of Management practices on students' academic performance at Kenya Certificate of Secondary Education in Busia County, Kenya.* University of Nairobi, Nairobi, Kenya

Parasuram, K. (2006). Variables that affect teachers' attitudes towards disability and inclusive education in Mumbai, India. *Disability & Society, 21*(3), 231–242.

Parker, A., Alverez-McHatton, P., Allen, D., & Rosa, L. (2010). Dance lessons: Preparing preservice teachers for co-teaching partnerships. *Action in Teacher Education, 32*(1), 26-38.

Patton, M. (2002). *Qualitative Research and Evaluation Methods*, 3rd edn. Thousand Oaks, CA: Sage.

Peterson, M., & Beloin, K. S. (1998). Teaching the inclusive teacher: Restructuring the mainstream course in teacher education. *Teacher Education and Special Education, 21*(4), 306-318.

Pijl, S.J. & Meier, C.J., (1997). *Factors in inclusion: A framework*. Routledge, London, 1–16.

Plano Clark, V. & Creswell, J. (Eds) (2007). *The Mixed Methods Reader*. Thousand Oaks CA: Sage.

Powers, S. (2002). From concepts to practice in deaf education. *Journal of Deaf Studies and Deaf Education 7*(3), 230–243.

Pugach, M. C. (1996). Unifying the preparation of prospective teachers. In W. Stainback & S. Stainback (Eds.), Controversial issues confronting special education: Divergent perspectives (2nd ed., pp. 239-252). Boston: Allyn & Bacon.

Purcell, M., Horn, E., & Palmer, S. (2007). A qualitative study of the initiation and continuation of preschool inclusion programs. *Exceptional Children, 74*, 85-99.

Rajovic, V., & Jovanovic, O. (2013). The barriers to inclusive education: Mapping 10 years of Serbian teachers' attitudes toward inclusive education. *Journal of Special Education and Rehabilitation, 14*, 78–97.

Republic of Kenya (2006 - 2011). *Ministry of Education Strategic Plan (2006-2011).* Nairobi: Government Printers.

Republic of Kenya (2011). Diploma in education management for secondary schools. (KESI). Nairobi: Kenya Literature Bureau.

Republic of Kenya. (1980). *Sessional Paper No. 6 on Education and Manpower Training for the Next Decade and Beyond.* Nairobi: Government Printer. Republic of Kenya, 2013

Republic of Kenya. (1999). *Totally Integrated Quality Education and Training – TIQET: Report of The Commission of Inquiry into The Education System of Kenya.* Nairobi: Government Printer.

Republic of Kenya. (2005a).) Sessional Paper No. 1 on Policy Reforms for Education, Training and Research: Meeting the Challenges of Education Training and Research in the 21st Century. Ministry of Education, Science and Technology (MOEST Nairobi: MOEST.

Republic of Kenya. (2005b). Kenya Education Sector Support Programme 2005 - 2010: Delivering Quality Education and Training to All Kenyans. Nairobi: MOEST.

Republic of Kenya. (2006b). Early Childhood Development Service Standard, Guidelines for Kenya. Nairobi: Government Press.

Robson, C. (2002). *Real World Research (second edition).* Oxford: Blackwell.

Rono, J. K. (1990). Factors Influencing the Rate of Drop out Among Primary School Students in Nandi District of Kenya. Unpublished M. Ed Thesis, Kenyatta University, Nairobi.

Ross-Hill, R. (2009). Teacher Attitude towards inclusion practices and special needs students. *Journal of Research in Special Educational Needs, 9*(3), 188-198.

Salisbury, C. L. (1991). Mainstreaming during the Early Childhood Years. *Exceptional Children, 58*(2), 146–155. https://doi.org/10.1177/001440299105800206

Savolainen, H. (2009). 'Responding to diversity and striving for excellence: The case for Finland', in C. Acedo (ed.), Prospects Quarterly Review of Comparative Education,vol. 39, pp. 281–292, UNESCO IBE, Joensuu, Finland.

Schoeman, S. (2000). Charting a course: teaching Citizenship Education within the Human and Social Sciences learning area. *ResearchGate,* 119-137.

Schumm, J. S., & Vaughn, S. (1992). Planning for mainstreamed special education students: Perceptions of general classroom teachers. *Exceptionality. 3.* 81-98.

Schweinhart, L. J., McNair, S., Barnes, H., & Larner, M. (1993). Observing young children in action to assess their development: The High/Scope Child Observation Record study. *Educational and Psychological Measurement, 53*(2), 445–455.

Scruggs, T. E., & Mastropieri, M. A. (1996).Teacher perceptions of mainstreaming: A research synthesis. *Exceptional Children, 63,* 59-74.

Sebba, J., & Sachdev, D. (2008).What works in inclusive education? IIford: Barnardos.

Shamberger, C. (2010). Early career teachers' perceptions of their preparation for initial experiences in co-taught classrooms. (Unpublished Dissertation). University of North Carolina

Sharma, U., Forlin, C., & Loreman, T. (2008). Impact of training on pre-service teachers' attitudes and concerns about inclusive education and sentiments about persons with disabilities. *Disability &Society, 23*(7), 773–785. doi:10.1080/09687590802469271

Shaw, A. (2017). Inclusion: The role of special and mainstream schools. *British Journal of Special Education, 44*(3), 292-312.

Sileo, T. W., Prater, M. A., Luckner, J. L., Rhine, B. T., & Rude, H. (1998). Strategies to facilitate pre-service teachers' active involvement in learning. *Teacher Education and Special Education, 21*(3), 187-204.

Singal, K. (2008).Inclusive Education in South Africa. *International Journal of Special Education, 39*(2), 116-142.

Slavin, R. (2011). Including Inclusion in School Reform: Success for All and Roots and Wings. *In Inclusion and School Reform: Transforming America's Schools*, edited by D. K. Lipsky, Gartner, A. Baltimore: Paul Brookes Publishing Company.

Slee, R. (2011). *The irregular school: Exclusion, schooling and inclusive education.* Abingdon, UK: Routledge.

Smoley, E. R. (1999). *Effective school boards: Strategies for improving board performance*. San Francisco: Josey-Bass Inc.

Stainback, W., & Stainback, S. (Eds.). (1996). *Inclusion: A guide for educators.* Baltimore: Paul H. Brookes.

Stakes R, & Hornby, G. (2010). *Meeting special needs in mainstream schools a practical guide for teachers* (2nded.) London: David Fulton.

Stanovich, P.,& Jordan, A. (1998). Canadian teachers' and principals' beliefsabout inclusive education as predictors of effective teaching in heterogeneousclassrooms. *Elementary School Journal, 98*, 221-238.

Stoiber, K. C., & Anderson, A. J. (1996). Behavioural assessment of coping strategies in young children at-risk, developmentally delayed, and typically developing. *Early Education and Development, 7*(1), 25–42.

Stough, M. L. (2003). Special education and severe disabilities in Costa Rica: Developinginclusion in a developing country. *Research and Practice for Persons with Severe Disabilities, 28*(1), 7-15.

Stowitschek, J. L., Cheney, D. A., & Schwartz, I. S. (2000). Integrating fundamental change through experiential inservice development. *Teacher Education and Special Education, 23*(2), 142-156.

Subban, P. & Sharma, U. (2006). Primary school teachers' perceptions of inclusive education in Victoria, Australia. *International Journal of Special Education, 21*(2), 42-52.

Swart, E. & Pettipher, R., (2005). A framework for understanding inclusion', in E. Landsberg, D. Kruger & N. Nel (eds.), *Addressing barriers to learning: A South African perspective,* pp. 3–23, Van Schaik Publishers, Pretoria.

Swart, E., Engelbrecht, P., Eloff, I., & Pettipher, R. (2002). Implementing inclusive education in South Africa: Teachers' attitudes and experiences.*Acta Academica, 34* (1), 175-189,

Sweller, N., Graham, J. L. & Van Bergen, P. (2012). The Minority Report: Disproportionate Representation in Australia's Largest Education System. *Exceptional children 79*(1), 107-125 ·

Thomas, G. & O'Hanlon, C. (2005). Inclusive education: discourse and action. *British Educational Research Journal, 31*(2), 269-275.

Toni, R V., Munk, D.D. Lynch, K. Bosma, J.,& Rouse, J. (2007). A model for preparing special and general education preservice teachers for inclusive education.*Journal of Teacher Education 58* (5), 440-455

Trainer, M. (1991). *Differences in common: Straight talk on mental retardation, Down Syndrome, and life.* Rockville, MD: Woodbhouse.

Tran, T.T. (2016). PragmatismandConstructivisminconductingresearchaboutuniversity enterprisecollaborationin theVietnamesecontext.*InternationalSymposiumon Qualitative Research, 5,* 7-15.

UASIN GISHU COUNTY INTEGRATED DEVELOPMENT PLAN, 2018-2022. "Towards Realizing People-Focused Transformation For Wealth Creation"

Umar, M. A., & Abdullah, M. R. (2020). Teachers' Competency Requirement for Implementation of Inclusive Education in Nigeria. *Universal Journal of Educational Research, 8*(3C), 60-69.

UNESCO (1994). The Salamanca statement and framework for action on special needs education', *Adopted by the World Conference on Special Needs Education: Access and Quality, Salamanca, Spain,* UNESCO, Paris.

UNESCO (2001). *Inclusive education and education for all.* Paris: UNESCO

UNESCO (2005). *Education for All Global Monitoring Report 2005*. Paris: UNESCO.

UNESCO, 2005). *Inclusive education: Open debates and the road ahead*. Paris:

UNESCO. (2009). Guidelines for Inclusion: Ensuring Access to Education for All. Paris: UNESCO.

Van der Westhuizen, P. C.,& Mosoge, M. J. (2001). Optimising Parental Involvement in School Activities: Problems Facing Principals'. *South African Journal of Education 21*(3), 190–95.

van Lier, L. (2004). *The ecology and semiotics of language learning: A sociocultural perspective*. Boston: Kluwer Academic.

Van Reusen, A.K.,& Barker, K.S. (2001). High school teacher attitudes toward inclusion. *The High School Journal 84*(2), 7–17.

Van Wyk, F. (2001). *An Integrated Manual for the Management, Control and Protection of the Vaal River Barrage Reservoir*. MSc. Dissertation, University of Johannesburg, Johannesburg

Varld, B. (2008). *The Globe, Sweden: Children's World Organization*. Unpublished Report.

Vaughn, S., Gersten, R., & Chard, D. J. (2000). The underlying message in LD intervention research: Findings from research syntheses. Exceptional Children, 67, 99–114.

Voltz, D. L., & Elliott, R. N. (1997). Collaborative teacher roles in facilitating inclusion: Pre-service preparation for general and special educators. Teacher Educator, 33, 44-60.

Wagner, M. Newman, L., Cameto, R. & Levine, P. (2006). *The Academic Achievement and Functional Performance of Youth with Disabilities.* A Report from the National Longitudinal Transition Study-2 (NLTS2).

Waitoller, F. R., & Artiles, A. J. (2013). A Decade of Professional Development Research for Inclusive Education: A Critical Review and Notes for a Research Program. *Review of Educational Research, 83*(3), 319–356.

Waitoller, F. R., & Kozleski, E. B. (2013). Working in boundary practices: Identitydevelopment and learning in partnerships for inclusive education. *Teaching and Teacher Education, 31*, 25-4.

Waitoller, F., Artiles, A. J., & Cheney, D. (2010). The miner's canary: A review of overrepresentation research and explanations. *The Journal of Special Education, 44*, 29-49.

Walton, E., Nel, N., Hugo, H., & Muller, H. The extent and practice of inclusion in independent schools in South Africa. *South African Journal of Education 29* (1), 105-126.

Waweru, P.N (2005). *Management Constraints Confronting BOMs in Day Secondary Schools in Kandara Division–Maragua District, Kenya*. M.Ed Project Kenyatta University.

Webster, T., (2004). *Accelerating girls' education in PNG: Reasons why students drop out.* Post-Courier.

Whitehead, D. (2006). The health-promoting school: What role for nursing? *Journal of Clinical Nursing 15*(3),264-271.

Whitehead, J. (1985). An analysis of an individual's educational development: the basis for personally oriented action research. In M. Shipman (ed.),*Educational Research: Principles, Policies and Practices.* Lewes: Falmer, 97–108.

WHO (2011). *World report on Disability.* Geneva: WHO and World Bank.

Whyte, B. (2005). Collaborating with diverse cultures. In D. Fraser, R. Moltzen, & K. Ryba, (Eds.), *Learners with special education needs in Aotearoa New Zealand* (3rd ed.) (pp. 117 127). Melbourne: Dunmore Press.

Wilczenski, F. L. (2012). Development of a scale to measure attitude toward inclusive education. *Psychology in the Schools, 29,* 306-312.

Wilkins, T. & Nietfeld, J.L. (2004). The effect of a school-wide inclusion training programme upon teachers' attitudes about inclusion. *Journal of Research in Special Educational Needs, 4(*3), 115-121.

Winzer, M.A. & Kas, M. (2011). *International Practices in Special Education: Debates and Challenges* 1st Edition. New York: Gallaudet University Press

Wong, S., & Cumming, T. (2010). Family day care is for normal kids: Facilitators and barriers to the inclusion of children with disabilities in family day care. *Australasian Journal of Early Childhood, 35,* 4–12.

Woolfson, L., Grant, E. & Campbell, L. (2007).A comparison of special, general and support teachers' controllability and stability attributions for children's difficulties in learning. *Educational Psychology, 27* (2), 295-306.

Yamane T. (1967).*Statistics: An Introductory Analysis,* 2nd Ed. New York: Harper and Row.

Yeung, A. S., Taylor, P. G., Hui, C., Lam-Chiang, A. C., & Low, E. L. (2012). Mandatory use of technology in teaching: Who cares and so what? *British Journal of Educational Technology, 43,* 859–870.

Yuen, M., & Westwood, P. (2002). Teachers' attitudes toward integration: Validation of a Chinese version of the Attitudes toward Mainstreaming Scale (ATMS). *Psychologia, 45,* 1–11.

Zehler, A.M., Fleischman, H.F., Hopstock, P.J., Stephenson, T.G., Pendzick, M.L., & Sapru, S. (2003). Descriptive study of services to LEP students and LEP students with disabilities. Volume I: Research Report. Final Report submitted to U.S. Department of Education, Office of English Language Acquisition. Arlington, VA: Development Associates, Inc.

Zimba, Z. (2011). Managing an Inclusive school in Swaziland, Research report, Rhodes University, Grahamstown.

Zwane, S.L.,& Malale, M.M. (2018). Investigating barriers teachers face in the implementation of inclusive education in high schools in Gege Branch, Swaziland. *African Journal of Disability 7*(391), https://doi.org/10.4102/ajod.v7i0.391.

APPENDICES

APPENDIX I: QUESTIONNAIRE FOR THE ECDE TEACHER

Dear teacher,

This research attempts to explore school-based factors that influence the implementation of inclusive education in public ECD centres. Kindly complete this questionnaire as accurately and truthfully as possible. Your response will be treated with uttermost confidentiality during and after the study.

Thank you.

INSTRUCTIONS

For each item put a tick in the brackets [√] against the appropriate response or fill in the blank spaces.

SECTION A: DEMOGRAPHIC INFORMATION

1. Your designation or responsibility _____

   e.g. Subject teacher, Games teacher etc.(Skip blank if no responsibility)

2. Highest educational qualification:

   PI [ ] Diploma[ ] Bachelors[ ] Others (Specify): .....

3. Area of specialization with regard to qualification: ……

   e.g. Regular teacher, Special Needs education, ECD etc

4. Teaching experience: …… years

SECTION B: TEACHERS PERCEPTION AND THE IMPLEMENTATION OF INCLUSIVE EDUCATION

The following statements apply your perspective of implementation of inclusive education in your ECDE centre. Respond (by a tick, √) as to whether you agree with the

statement **to a very great extent (5), to a great extent (4)**,**to a moderate extent (3), to a low extent (2) or to a very low extent (1**

Statements	**5**	**4**	**3**	**2**	**1**
I think I find it difficult to align my teaching to incorporate learners with special needs					
I find it difficult to use complex tasks with multiple solutions in dealing with special needs learners.					
I find it hard to teach a class with special needs leaner's					
I find it hard to ensure that all students in my class are actively involved in group work.					
I find it stressful to align my pedagogy in an inclusive setting					
I like aligning content of my course with that of special needs learners					
I find it stressful to teach a class with special needs learners					
I feel capable to align content of my course with that of special needs learners					
I feel capable to use complex tasks with multiple solutions.					
I feel capable to teach a lesson in which regular and special needs students execute experiments.					
It is true that children with special needs may not have the capability to compete effectively with normal learners in academics in regular schools					
Inclusion of learners with special needs in regular ECD centres will make most learners develop behavior problems.					

SECTION C: TEACHERS PERCEIVED knowledge and skills AND THE IMPLEMENTATION OF INCLUSIVE EDUCATION

The following statements apply to your competence on implementation of inclusive education in your ECDE centre. Respond (by a tick, √) as to whether you agree with the statement to a **very great extent (5)**, **to a great extent (4)**, to a **moderate extent (3)**, **to a low extent (2)** or **to a very low extent (1)**.

Statements	**5**	**4**	**3**	**2**	**1**
I have enough knowledge to teach learner with motor disabilities					
I have skills to adapt teaching strategies, subject and exams for my student with motor disabilities					
I need to learn more about teaching strategies and characteristics of student with motor disabilities					
I need to learn more about teaching strategies and characteristics of student with ADHD					
I have enough knowledge to teach students with intellectual disabilities					
I have skills to adapt teaching strategies, subject and exams for my student with intellectual disabilities					
I need to learn more about teaching strategies and characteristics of student with intellectual disabilities					
I have enough knowledge to teach students with autism					
I have skills to adapt teaching strategies, subject and exams for my student with autism					
I need to learn more about teaching strategies and characteristics of student with autism					
I have difficulties managing SEN student behavioral problem and discipline					

SECTION D: COTEACHING AND THE IMPLEMENTATION OF INCLUSIVE EDUCATION

The following statements apply to your competence on implementation of inclusive education in your ECDE centre. Respond (by a tick, √) as to whether you agree with the statement to a **very great extent (5)**, **to a great extent (4)**, to a **moderate extent (3)**, **to a low extent (2)** or **to a very low extent (1)**.

Statements	**5**	**4**	**3**	**2**	**1**
The teachers in our ECDE centre collaborate in identifying learners with special needs.					
The teachers in our ECDE continually review their differentiated curricula for all the learners					
The teachers in our ECDE centre work side by side with their special needs education teachers in the classroom to teach					
The teachers in our ECDE centre collaborate in planning to teach					
The teachers in our ECDE centre collaborate in teaching all the learners in all the classes					
The teachers in our ECDE centre collaborate in assessment of all the learners					
The teachers in our ECDE centre employ multiple approaches in co-teaching (e.*g. parallel, alternative, team teaching)*					

APPENDIX II: QUESTIONNAIRE FOR THE ECD HEAD TEACHER

SECTION A: DEMOGRAPHIC INFORMATION

1. Gender Male [ ] Female [ ]
2. Highest educational qualification:

   PI [ ] Diploma [ ] Bachelors [ ] Others (Specify):

   .....
3. Teaching Experience: …….. years
4. Status of ECDE centre.

   i) Public [ ] Public with special unit attached [ ]

   ii) Curriculum offered

   NACECE [ ] MONTESSORI [ ] Other(specify)

   ……..

   iii) Number of ECDE teachers in your school: …….

   iv) Fill in the number of boys and girls in each ECD class level

Class Level	Total Number of Children		Number of Children with Special Needs	
	Boys	Girls	Boys	Girls
Nursery				
Class I				
Class II				
Class III				

5. Which of the following categories of learners in (a) are found in your ECDE section of the school?

   (i) Learners with Vision problems [ ]

   (ii) Learners with Learning problems [ ]

   (iii) Learners with Physical handicaps [ ]

   (iv) Learners with Communication difficulties [ ]

   (v) Learners with emotional problems [ ]

   (vi) The gifted and talented [ ]

   (vii) Others (Specify): …….

SECTION B: SCHOOL LEARNING ENVIRONMENT AND THE IMPLEMENTATION OF INCLUSIVE EDUCATION

Statements	**5**	**4**	**3**	**2**	**1**
The ECD centre has the physical and learning environment for learners with special needs to thrive and learn with their normal peers					
The teaching approaches used by our ECD teachers are able to effectively benefit learners with special needs					
Our ECD teaches have provided one of the best environment for learners with special needs to learn comfortably					
I suggest few improvements to be made in my ECD centre to accommodate learners with special needs.					
With adequate improvement in the physical and learning environment in regular ECD centers learners with special needs can be included to learn with their normal peers.					

SECTION C: SCHOOL MANAGEMENTS' COMMITTEE SUPPORT AND THE IMPLEMENTATION OF INCLUSIVE EDUCATION

Statements	**5**	**4**	**3**	**2**	**1**
The school management committee has a robust strategic plan for the ECD centre for the years to come					
The school management committee has continued to review its strategic development plan for the ECD					
The school management committee has periodically implemented fully its strategic development plan for the ECD					
The school management committee has given priority in funding ECDE centres all the time					
The ECD teachers have continually drawn moral support from the school management committee					
The school management committee has continually shown concern for the ECD and as such taken appropriate interventions					
School management committee's role of procurement of teaching and learning resources					
School management committees' were mobilizing parents and community on sourcing for funds from project donors for the implementation of inclusive education					
Role of establishing proper communication channels to					

Teachers and parents on implementation of inclusive education					
Ensuring compliance with the Education Act and Education Regulations in its school operations					
Oversight and managing the appointment and performance of non-teaching staff					
The mobilization and spending of school funds					
Development of school infrastructure					
ensure security and safety of the teachers and pupils					
Establishing proper channels of communication with staff parents and members of the public among others.					

SECTION D: COTEACHING AND THE IMPLEMENTATION OF INCLUSIVE EDUCATION

The following statements apply to your competence on implementation of inclusive education in your ECDE centre. Respond (by a tick, √) as to whether you agree with the statement to a **very great extent (5)**, **to a great extent (4)**, to a **moderate extent (3)**, **to a low extent (2)** or **to a very low extent (1)**.

Statements	**5**	**4**	**3**	**2**	**1**
The teachers in our ECDE centre collaborate in identifying learners with special needs.					
The teachers in our ECDE continually review their differentiated curricula for all the learners					

The teachers in our ECDE centre work side by side with their special needs education teachers in the classroom to teach					
The teachers in our ECDE centre collaborate in planning to teach					
The teachers in our ECDE centre collaborate in teaching all the learners in all the classes					
The teachers in our ECDE centre collaborate in assessment of all the learners					
The teachers in our ECDE centre employ multiple approaches in co-teaching (e.*g. parallel, alternative, team teaching)*					
Co-teaching id practice in my ECDE center					

SECTION E: IMPLEMENTATION OF INCLUSIVE EDUCATION

The following statements apply to the implementation of inclusive education in your ECDE centre. Respond (by a tick, √) as to whether you agree with the statement to a **very great extent (5)**, **to a great extent (4)**, to a **moderate extent (3)**, **to a low extent (2)** or **to a very low extent (1)**.

Statements	**5**	**4**	**3**	**2**	**1**
Identification of children with SNE in ECDE centre					
Timely and professional Assessment of SNE pupils in ECDE centre					

Professional teaching staff involved with SNE pupils					
Developed ECDE centre according to the need of SNE children					
Acquired Relevant assistive technologies for SNE learners					
Continued development of ECDE according to the need of SNE pupils					
Existence of Cooperation between multidisciplinary teams and teachers in handling SNE learners					
Active participation of parents in designing					
Accessibility and equipment of SNE learners with adapted technical appliances					

APPENDIX III: INTERVIEW SCHEDULE FOR THE SCHOOL HEADTEACHER

Synergy between ECD curriculum content and the implementation of inclusive

1. Does the curriculum content support implementation of inclusive learning in your ECDE section of the school?

……

……

……

2. Which elements of the ECD curriculum content support implementation of inclusive learning in your ECDE section of the school?

……

……

……

3. Which implementation procedures of inclusive learning are supported by the ECDE curriculum?

……

……

……

4. State any three leading challenges that is experienced in implementation of ECDE curriculum?

……

……

……

5. Comment on the ECDE curriculum content vis a vi implementation of inclusive learning in your institution

……

…..……

6. Is Coteaching practiced in your ECDE centre? If yes, which approaches are used by the teaching staff?

   ……

   ……

   Thank you

APPENDIX IV: OBSERVATION SCHEDULE

ECDE

Infrastructure

Classes/Desks/reading tables	……..……
Buildings	……..……
Learning resource/assistive devices	……..……
Learning resource	……..……
Teachers Attitude/Motivation	……..……
Approach to work	……..……
Satisfaction/Happy	……..……
Cooperation	……..……
Communication	……..……
School management	……..……

Committee support	……
Presence	…….. ……
Working	…….. ……

APPENDIX V: DOCUMENTS ANALYSIS GUIDE

Document	**Analysis**	**Findings**
ECD syllabus	Availability Usability	
Teachers guide handbook	Availability Utilization	
Schemes of work	Availability Usability Contents	
Individual Education Program	Availability Usability Contents	
Service Standards guidelines for ECD	Availability Contents	
Policy framework for ECD	Availability Contents	

***************End***************

APPENDIX VI: PARTICIPATING SCHOOLS/CENTRES

Sub County	Centre_Code	No. of teachers
Kesses	1001	1
	1002	1
	1003	1
	1004	1
	1005	1
	1006	1
	1007	1
	1008	1
	1009	1
	1010	2
	1011	1
	1012	1
	1013	1
	1014	1
	1015	1
	1016	1
	1017	1
	1018	1
	1019	1
	1020	2
	1021	1
	1022	1
	1023	1
	1024	1
	1025	1
	1026	2
	1027	1
	1028	1
	1029	2
	1030	1
	TOTAL	34
Kapseret	2001	2
	2002	1
	2003	1
	2004	1
	2005	2
	2006	1
	2007	1
	2008	1
	2009	1
	2010	1
	2011	1
	2012	2
	2013	2
	2014	1
	2015	1
	2016	1
	2017	1
	2018	1
	2019	1
	2020	1
	2021	1
	2022	1
	2023	1
	2024	1
	2025	1
	2026	1
	2027	1
	2028	1
	2029	1
	2030	1
	TOTAL	34
Moiben	3001	1
	3002	2
	3003	1
	3004	1
	3005	1
	3006	2
	3007	1
	3008	1
	3009	1
	3010	1
	3011	1
	3012	1
	3013	1
	3014	1
	3015	1
	3016	1

	3017	1
	3018	1
	3019	2
	3020	1
	3021	1
	3022	1
	3023	1
	3024	2
	3025	1
	3026	1
	3027	1
	3028	1
	3029	1
	3030	1
	3031	1
	3032	1
	TOTAL	36
Ainabkoi	4001	2
	4002	2
	4003	1
	4004	1
	4005	1
	4006	1
	4007	1
	4008	1
	4009	1
	4010	1
	4011	1
	4012	1
	4013	1
	4014	1
	4015	1
	4016	1
	4017	1
	4018	1
	4019	1
	4020	1
	4021	1
	4022	1
	4023	1
	4024	1
	4025	1

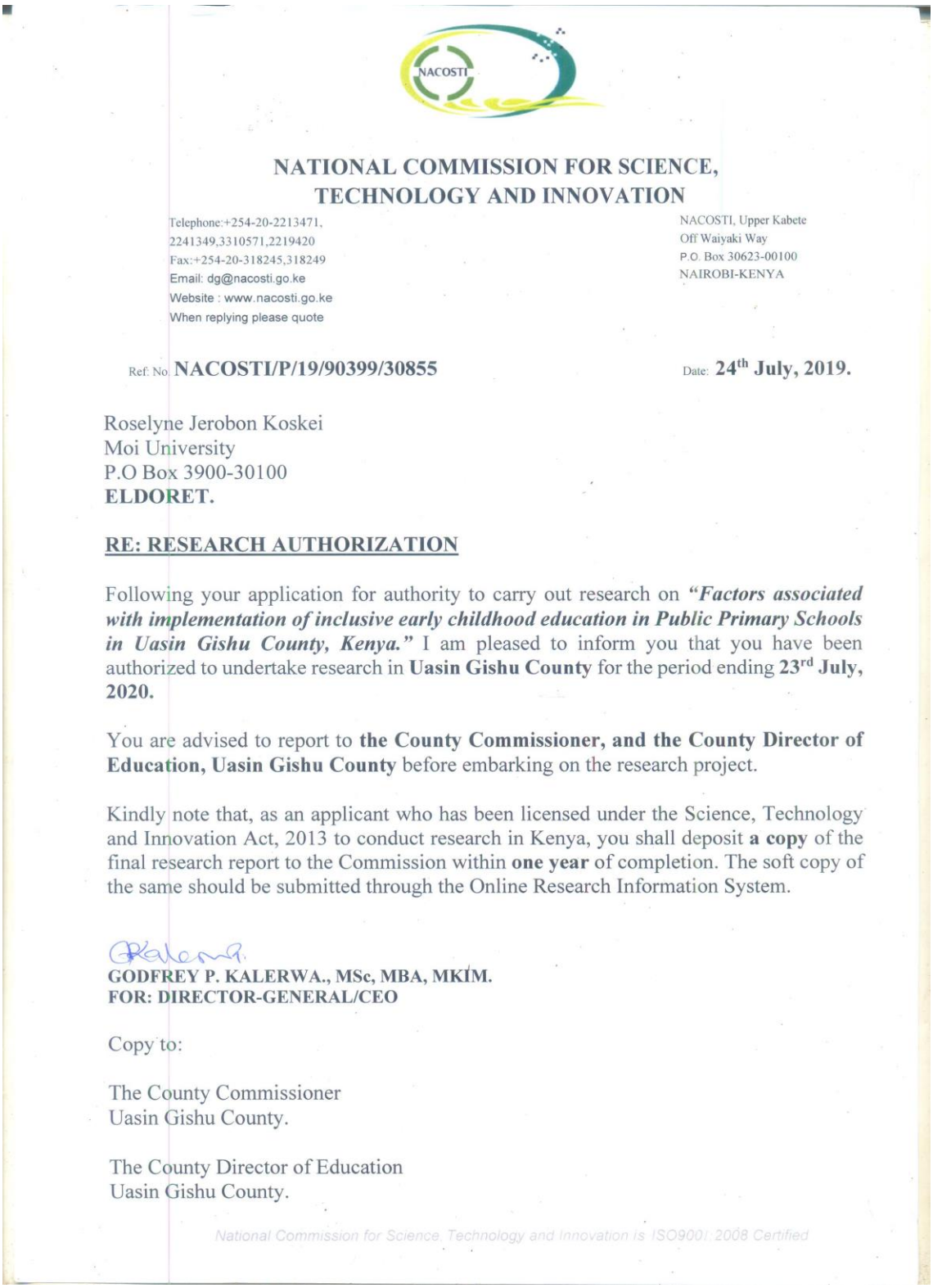
	4026	1
	4027	1
	4028	1
	4029	1
	4030	1
	4031	2
	4032	2
	TOTAL	36
Turbo	5001	1
	5002	1
	5003	1
	5004	1
	5005	1
	5006	2
	5007	1
	5008	1
	5009	1
	5010	1
	5011	1
	5012	2
	5013	1
	5014	1
	5015	1
	5016	1
	5017	1
	5018	1
	5019	1
	5020	1
	5021	1
	5022	1
	5023	1
	5024	1
	5025	1
	5026	2
	5027	2
	5028	1
	5029	1
	5030	1
	5031	1
	5032	1
	5033	1
	5034	1

	5035	1
	5036	1
	TOTAL	40
Soy	5033	1
	5034	1
	5035	1
	5036	1
	6001	1
	6002	1
	6003	1
	6004	1
	6005	1
	6006	1
	6007	1
	6008	1
	6009	1
	6010	1
	6011	1
	6012	1
	6013	1
	6014	1
	6015	1
	6016	1
	6017	1

	6018	1
	6019	1
	6020	1
	6021	1
	6022	1
	6023	1
	6024	1
	6025	1
	6026	1
	6027	1
	6028	1
	6029	1
	6030	1
	6031	1
	6032	1
	6033	1
	6034	1
	6035	1
	6036	1
	TOTAL	40
GRAND TOTAL	196	

APPENDIX VII: MAP OF UASIN GISHU COUNTY, THE STUDY AREA

APPENDIX VIII: RESEARCH PERMIT - NACOSTI



NACOSTI

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

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Ref: No. **NACOSTI/P/19/90399/30855**

Date: **24th July, 2019.**

Roselyne Jerobon Koskei
Moi University
P.O Box 3900-30100
ELDORET.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Factors associated with implementation of inclusive early childhood education in Public Primary Schools in Uasin Gishu County, Kenya."*** I am pleased to inform you that you have been authorized to undertake research in **Uasin Gishu County** for the period ending **23rd July, 2020.**

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

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

GODFREY P. KALERWA., MSc, MBA, MKIM.
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Uasin Gishu County.

The County Director of Education
Uasin Gishu County.

THIS IS TO CERTIFY THAT:
MS. ROSELYNE JEROBON KOSKEI
of MOI UNIVERSITY, 3900-30100
ELDORET,has been permitted to conduct
research in *Uasin-Gishu County*

on the topic: *FACTORS ASSOCIATED WITH IMPLEMENTATION OF INCLUSIVE EARLY CHILDHOOD EDUCATION IN PUBLIC PRIMARY SCHOOLS IN UASIN GISHU COUNTY, KENYA*

for the period ending:
23rd July,2020

Permit No : NACOSTI/P/19/90399/30855
Date Of Issue : 24th July,2019
Fee Recieved :Ksh 2000

.....
Applicant's Signature

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

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research Licenses is guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014.

CONDITIONS

1. The License is valid for the proposed research, location and specified period.
2. The License and any rights thereunder are non-transferable.
3. The Licensee shall inform the County Governor before commencement of the research.
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7. The Licensee shall submit one hard copy and upload a soft copy of their final report within one year of completion of the research.
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REPUBLIC OF KENYA

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RESEARCH LICENSE

Serial No.A 25949

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