INFLUENCE OF INFRASTRUCTURE DEVELOPMENT ON GROWTH OF EARLY CHILDHOOD DEVELOPMENT CENTRES IN BONDO SUB-COUNTY, KENYA.

BY

Linda Namusonge Kharemwa

A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF ARTS IN PROJECT PLANNING AND MANAGEMENT OF THE UNIVERSITY OF NAIROBI

AUGUST 2017

DECLARATION

This research project report is my original work and has not been submitted for any award to any other university.

Signed…… Date…..……..

Kharemwa Linda Namusonge

This research project report is submitted for examination with our approval as the candidate's supervisors:

Signed……..……Date……..…….

Prof. Charles M. Rambo, PhD.

ODel

University of Nairobi.

Signed…… Date……..

Dr. Raphael Ondeko Nyonje, PhD.

Coordinator, Research, Evaluation & Lifelong Learning Courses

University of Nairobi.

DEDICATION

I dedicate this research project report to my late father, Samson Kharemwa Butasi and mother Milly Kharemwa. Their vision is alive and as a family we will work hard to make it possible.

ACKNOWLEDGEMENTS

The production of this research project report would not have been possible without the immense contribution of many.

First and foremost, I would like to recognize the guidance of the Almighty God for according me a good health all through my course. I wish to extend my sincere gratitude and appreciation to University of Nairobi for admitting me to the Master of Arts in Project Planning and Management programme. I sincerely appreciate my able lectures with the leadership of Dr. Nyonje for setting a solid base upon which this study has been anchored .His guidance in this research and critiques ultimately shaped the final product of this research. He played a big role in mentoring and supporting me throughout the study. Gratitude to Professor Rambo who took a leading role in guiding me during the early stages in the development of this manuscript especially in topic selection; much of the good work in this research project could be delivered at his door step. His broadminded attitude and encouragement kept me strong in the face of challenges.

Let me also express my deep appreciation to my family members, especially my husband, Matayo, who tirelessly took care of the children to allow me time to study. I am particularly grateful to my children Anangasa, Matayo and Amumbwe, for their tolerance and support. They sat with me, sometimes, late into the night engaging me on various school issues and encouraging me to finish writing my research project.

TABLE OF CONTENT

CHAPTER TWO

LITERATURE REVIEW

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSIONS

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

LIST OF FIGURES

LIST OF TABLES

LIST OF ABBREVIATIONS AND ACRONYMS

AIDS- Acquired Immune Deficiency Syndrome

CBOs - Community Based Organizations

CBS - Central Bureau of Statistics

CSO - Civil Society Organizations

DEO - District Education Office

DICECE - District Centres for Early Childhood Education

ECD - Early Childhood Development

ECEC-Early Childhood Education and Care

ECDE - Early Childhood Development and Education

EFA- Education for All

FPE- Free Primary Education

GER – Gross Enrolment Rate

ICDS-Integrated Child Development Services

GoK - Government of Kenya

KESSP- Kenya Education Sector Support Programme

MOEST- Ministry Of Education Science and Technology

MoH - Ministry of Health

NACECE - National Centre for Early Childhood Education

NESP-National Education Sector Plan

NGOs - Non-Governmental Organizations

TSC- Teachers Service Commission

UN- United Nations

UNESCO-United Nations Education Science and Cultural Organization

UNICEF- United Nations Children's Fund

WGCED-Working group on Early Childhood Development

ABSTRACT

Kenya set a national goal of attaining Universal Primary Education (UPE) and Education for All (EFA) by 2015. Failure to invest in Early Childhood Development can result in developmental delays, disability hence inhibiting the optimal development and performance of children. The purpose of this study was to examine the influence of infrastructure development on the growth of Early Childhood Development centres. The objectives of the study were to examine the extent to which stakeholder's attitude towards infrastructure development influence the growth of Early Childhood Development centres in Bondo sub-county, to examine how policy on infrastructure development influences growth of early childhood Development centres in Bondo sub-county, to establish the level at which financial allocation on infrastructure development influences growth of Early Childhood Development centres in Bondo sub-county and to assess how management of infrastructure development influences growth of early childhood Development centres in Bondo sub-county. This study adopted descriptive survey research design. The targeted population included the 440 teachers and 230 administrators in the Early Childhood Development Centres in Bondo, and sub-county Early Childhood Education officers. The sample size was determined as 248. The split-half technique was used to ensure reliability of research instruments while construct and content validity was enhanced through pilot testing and reviews by the University supervisors. Data obtained was cleaned, verified and analyzed through descriptive and inferential statistics: frequencies, percentages, cross tabulations, chi-square and correlations. The findings showed a significant positive relationship between stakeholder's attitude towards Infrastructure development and growth of early childhood development centres ($N=244, C.L.=95\%, r=0.120^{*}, p>0.05$). Nonetheless, there was an insignificant and positive relationship between policy and school management role on infrastructure development and growth of early childhood education centres ($N=244, C.L.=95\%, r=0.067, p>0.05$) and ($N=244, C.L.=95\%, r=0.040, p>0.05$) respectively. Association between resource allocation and infrastructure development and growth of early childhood development centres was weak negative ($N=244, C.L.=95\%, r=-0.031, p>0.05$). The researcher concluded that the education stakeholders: County government, parents, Non-Governmental Organizations Community Based Organizations, Faith Based organization /Churches and community around the school had a positive attitude towards infrastructure development. Policies on infrastructure are in place and are supportive of the Early Childhood Development centres growth in Bondo sub-county, implementation however is weak. Financial allocations for infrastructural development by the financiers have been inadequate and the little funds getting to the schools have been seemingly mismanaged. The centres had management bodies which were largely effective in overseeing infrastructural development of Early Childhood Development centres in Bondo sub-county, their role has however been restrained by inadequate finances. The researcher therefore recommends that there is need to nourish positive parental attitudes, sensitize stakeholders on the policy guidelines on Early Childhood Development Education, encourage active parental participation in school initiatives, and build capacity of the school board of management on effective management practices and resource mobilization.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Early Childhood Education (ECE) refers to the Education acquired in the early stages of childhood. The National Association for the Education of Young Children (NAEYC, 2007) asserts that ECE spans from conception to eight years of age. Although ECE does not have to occur in absence of the parent or primary caregiver, this term is often used to describe pre-school or childcare programmes. According to the Jomtien Declaration, "learning begins at birth''. The most commonly used indicator for early childhood programmes is the percentage of a particular age group who are enrolled in recognized programmes, creating a gross enrollment ratio (GER). With reference to the evaluation reports presented by countries prior to the World Education Forum held in Dakar in 2000, it is possible to obtain a rough overview of enrollments and changes over the last decade of the twentieth century (UNESCO, 2000).

Undertakings related to Early Childhood Development in the UK have got a higher chance gain the members same to the society at large. Foundation by Bernard Van Leer in the year (2004) revealed that educationists and scientists who are available in the whole world put in more effort on the pros of pre-school activities for the general growth of an individual. All of the countries in Latin America and southern and eastern Asia that reported on some information revealed uplift in enrollments, except Afghanistan. Only Grenada in the Caribbean revealed uplift. Cook Islands present in the Pacific revealed a downfall while the remaining countries revealing uplift. Enrollments in the Pacific Islands

differ from 15% in Fiji to 73% in Papua New Guinea and 100% in Tuvalu according to Early Childhood Education Encyclopeadia.com website. In Latin America, Ecuador gave an account that the coverage of 14% for children reaching 5 years old, is not in line with the 98% for Cuba. In the Caribbean, a report done by Belize revealed that 26% of its children aged 3-5 years were enrolled was not in line with 100%of the children in the Bahamas and Jamaica. In the Middle East and parts of the Northern Africa, Yemen reported 1%, Bahrain 36%, of the enrollment of children aged between 3-5 years. In central Asia and East parts of Europe, Afghanistan revealed no enrollment, Tajikistan revealing 4%, with 54% for Russia.

The summation of findings from African countries who speak Spanish, Portuguese and French revealed a boost for the given areas during the 1990s from 0.7% to 3.6%, with a downfall reported only in Togo. UNESCO revealed in 2009 "enrollment had improved and access, even though little, had risen" Seychelles had 107% percent enrollment that indicated an improvement from the report. Zambia also showed 7%enrollment, while Mauritius revealing an enrollment of 98%.

Kenya has put forward an objective of achieving Universal Primary Education (UPE) and Education for All (EFA) by the year 2015. In 1987, there were 12, 192 preschools with an enrolment of 662,045 children. It was projected that 3.6 million children would require pre-school education by the year 2000 (Godia, 2002). This implies that these ECE centres were actually being seen as educational institutions. The constitution of Kenya 2010 has further mandated the County Governments with the responsibility of ECD and Child Care. The Government of Kenya (GoK) has further committed to free and compulsory basic Education by including Pre-primary education as part of Free Primary

Education (Education Act 2013). The induction of FPE in the year 2003 by NARC government led to the increase in enrollment by an increased unknown number showing 18% uplift in primary school enrolment. Moreover, 65% of children in Kenya, more so those from not so well off backgrounds barely get the access of quality pre-school activities lowering their effort to engage in learning.

Kenya government has come up with the Session Paper No. 1 of the Ministry of Education (2005), which acknowledges the accomplishment of EFA by 2015 as a main objective of government in relation to education for the country's population. This transpires with the government's educational objectives and by the Millennium Development Goals. It also established the National Centre for Early Childhood Education and District Centre for Early Childhood Education to co-ordinate the Early Childhood Development programme undertakings such as delivery of service as these were seen as more likely to yield positive results more so in the villages.

In the year 2003 on January, the government introduced Free Primary Education (FPE) to give platforms to all eligible Kenyan children to access the education. This led to the withdrawal of children from Early Childhood Centre's awaiting for the rightful age for schooling as Early Childhood Education on the other hand was not free. This withdrawal is an indication of parents not participating in infrastructure development leaving many public institutions in a bad state. Caregivers who insist on their children attending school have no option but to take their children to some temporary schools present in the shopping centres or in an individual's homestead with a poor learning environment holding a small enrollment number. Concern comes in whether the given "schools" meet in line with the naturally set standards of pre-school education (UNESCO, 2005).

The provision of Early Childhood Development Education (ECDE) in Kenya is the responsibility of the county government as documented by the constitution of Kenya 2010 and in Part 1 Section 3 of the Early Childhood Education Bill (2014) .It is stated that the county government needs to provide some outline in which necessary infrastructure is developed to aid in providing quality education for its population. The education system in Kenya is also strategically anchored as a component of the social pillar in the vision 2030 (Government of Kenya, 2008). All these underscore the importance of ECD in the countries strategic focus. Within 5 years, the ECDE experienced a steady growth. The centres increased from 29,455 in 2003 to 37,263 in 2007.Enrollment too went up from 1,538,069 in 2003 to 1,691,093 in 2007. The Gross Enrolment Rate (GER) on the other hand also improved from 56.8 in 2003 to 59.3 in 2007.In 2011 GER in ECDE increased to 65.6%from 60.9% in 2010 (NESP, 2014).

Questions still arise over the GER in ECD though it has developed a great deal due to the figures at 65.6% in comparison to that of primary school level reported at 115% in 2011 from 109.8% in 2010 (NESP, 2014).However, in some parts of Kenya, the issue of early childhood development Centres has remained a long term topic of concern in that by the induction of FPE was seen to be opposite the positivity made in ECD as many parents in some sub-counties withdrew their children from ECD to primary. The government seems not to have taken a prior consideration in ensuring effecting growth that is in terms of infrastructure development, teacher recruitment and selection, clear policies and access of the very Centres. This therefore makes it worthwhile for this study to examine the influence of infrastructure development on the growth of development centres in Bondo sub-county.

1.2 Statement of Problem

Early Childhood Development and Education undertakings are very vital for the social and economic development of a given country in the provision of a fairer and better start in life for children (KESSP, 2005). The inability to engage in Early Childhood Development could lead to the backlog or delaying in development. 1,183 Early Childhood Development (ECD) centres are in Siaya county, which the centres have employed,1, 326 ECD teachers, with a Teacher to Pupil Ratio: 1: 42. On the other hand, Homa bay County has 683 Early Childhood Development (ECD) centres served by 826 ECD teachers, with a Teacher: Pupil Ratio of 1: 27. The Kenya government's commitment to free and compulsory basic Education by inclusion of pre-primary education in Free Primary Education has seen an inflow of children into the ECDE centres (Education Act, 2013) yet this same children lack the necessary infrastructure in order to attain better Early childhood education. ECDE access in the country still is low even though these improvements have been embarked on with 65% of the children in the 3-6 years age bracket lacking the access to comprehensive and quality ECDE services (NESSP, 2013). Presence of materials and infrastructure is very key. A number of ECDE centres have got poor infrastructure but only those receiving aid from NGOs could be better placed with furniture that caters for the number of children together with their stature and full of comfort which is in contrast with majority of the centres not aided by NGOs. The content that is included in the learning materials is also overlooked. The new constitution also transferred the management of the Early Childhood Education to the county government. Part 1 Section 3 of the Early Childhood Education Bill, states that ECDE system should be established by the county government. The county government is still setting up structures and still face the challenge

of having adequate technical and operational capacity as reported by Nyachae (2014); it is therefore important to know whether these challenges affect the county government ability to support infrastructure development and its influence of growth of the ECD centres. Previous studies done in this area cannot be generalized into the current study since the studies differ in terms of their geographical scope, theme and methodology. The gap highlighted therefore raises the necessity to conduct a study to examine the influence of infrastructure development on the growth of Early Childhood Development centres in Bondo sub-county .

1.3 The study purpose

The aim of the study is to examine the influence of infrastructure development on early childhood education (ECDE) in Bondo sub-county.

1.4 Objectives of the Study

The following study objectives acted as the guide for the study:

i) To what extent does stakeholder's attitude towards infrastructure development influence the growth of Early Childhood Development centres in Bondo sub-county?

ii) How does policy on infrastructure development influence growth of Early Childhood Development centres in Bondo sub-county?

iii) To what level does financial allocation on infrastructure development influence growth of Early Childhood Development centres in Bondo sub-county?

iv) How does management of infrastructure development influence growth of Early Childhood Development centres in Bondo sub-county?

1.5 Research Questions

The given research questions acted as the guide for the study:

i) To what degree does stakeholder's attitude towards infrastructure development influence the growth of Early Childhood Education in Bondo sub-county?

ii) How does policy on infrastructure development influence infrastructure development on growth of early childhood education in Bondo sub-county?

iii) To what level does financial allocation on infrastructure development influence growth of early childhood education in Bondo sub-county?

iv) How does management of infrastructure development influence growth of early childhood education centres in Siaya County education in Bondo sub-county?

1.6 Significance of the Study

It is hoped that the findings of this study will be of significant benefit to Early Childhood teachers, administrators, school managers, playground supervisors, concerned parents and child care organizations. It will enlighten administrators and different stakeholders in this sub-sector including in policy formulation to strengthen ECD. Findings from the research will further provide an insight to funders on which aspects of the programme to focus on. This research will also provide knowledge to future researchers on further areas of

research. Finally the children who are the main beneficiaries of ECD will benefit from the likely implementation of the outcomes and recommendations of the study.

1.7 Basic Assumptions

It was assumed that parents are aware that essential education is a vital right of all pupils and that they are putting efforts to ensure that the children realize it. The second assumption was that ECDE givers would aware of national goals and objectives, universal goals and are working towards achieving them. The third assumption was that the respondent would exercise transparency and honesty while responding to the study questions. Lastly, the researcher assumed that the records and data obtained would be reliable as possible.

1.8 Limitations of the Study

Limitations are known as situations that the researcher has no control over making him/her to face challenges in coming up with conclusions and recommendations of the study. The main drawback in this study was the inability to access given institutions attributed to low road network. This was overcome by getting telephone contacts ECDE teachers in the hard to reach areas for phone interviews. Provision of information that is not right could be another challenge faced although this was covered by the act of informing the respondents about the significance of the study, confidentiality and their privacy assured to them by the researcher.

1.9 De-limitations of the study

The study was delimited to investigating how stakeholder participation, existing policies, financing frameworks and management influence the growth of ECD centres. The study was done in Bondo sub-county in Siaya County. In terms of target population, the study was delimited to the administration of the centres and the teachers.

1.10 Definition of terms used in the study

Influence: This is used to mean power affecting, a course of events, especially one that operates without any direct or apparent effort.

Infrastructure development: This refers to the gradual growth of the basic physical facilities needed for the operation of ECD centres including the buildings, furniture, outdoor play facilities and teachers.

Early Childhood Development (ECD): Covers a period between birth and 8 years of age (ECD policy 2006).In this study it refers to the discipline area concerned with the care, development, and learning of children between 0-8 years. ECD is under the Ministry of Education and is composed of: Nursery school, Pre-unit class, kindergarten, Day Nursery, Play group, Madrassa and HBCC.

Early Childhood Development Education (ECDE): ECDE is known as the process of availing the necessary support to prepare young learners (aged 0-8+) to integrate in the wider school curriculum.

Early Childhood Development Education Centres: This is known as variety of early childhood services provided under the framework of ECD.

Early Childhood Services: This is all forms of formal, non-formal and informal early childhood care and /or education services catering for children from 0-6 years old and /or their parents.

Stakeholders: This refers to those people or entities interested in one way or the other in ECD services and are actively or passively involved in its provision.

1.11 Organization of the Study

The organization of this study was into 5 chapters. The initial chapter is covered the study introduction, problem statement, research questions, limitations and delimitations of the study, study significance, basic assumptions, and definitions of significant terms and the study organization. The second section dealt with literature related to the research problem. It provided an insight into previous works and trends that has been recorded in the research area. The chapter revealed the gap that exists and needs to be researched on. The third chapter deals with research methodology. It presents a detailed description on the research areas. This is comprised of the design of the study, study population, sampling techniques, data collection instruments and techniques of data analysis. The fourth chapter is made up of findings analysis that is in line with the study aims outlined earlier. Lastly, chapter five covers the conclusions and recommendations from reasoned judgment of issues raised in the study. It also gives suggestions on areas for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter shades light on reviewed literature on Influence of infrastructure development on early childhood education growth .The literature review is done in accordance with the research objectives of the study.

2.2 Stakeholder's attitude towards infrastructure development and the growth of ECD centres

In Kenya, the first pre-schools were put into operation in the year 1940s with the intention of exploitation by the European and Asian societies. In the later stages, the pre-schools were built in African areas more so in the urban areas and on coffee, tea and sugar plantations (Kipkorir&Njenga, 1993).Just immediately after independence, pre-school education spread all through the country. Kipkorir and Njenga revealed that before the 1970s Kenya as a country not only lacked an organized Early Childhood Education curriculum but also other age appropriate teaching and learning materials and trained teachers. This led to the teachers using primary school related instructional methods which are inappropriate for ECD.

Currently in Kenya, ECD operates under the National Ministry of Education Science and Technology (MOEST).The Children's Act of 2001 upholds those children's rights and welfare from early childhood to adolescence (UNESCO, 2005).

The fourth agenda of the country's constitution states that the county government umbrella's pre-primary education and child care facilities with the duties elaborated more in Section 26 of the Basic Education Act, 2012.A research study was undertaken by Namuyu (2007) on the participation of the community in education activities: the management committees have got a duty in school improvement in Busia District, Kenya. He established that the supporters of the school included not only the national Government via the Ministry of Education and Constituency Development Fund, but also parents and Non-governmental Organizations. The undertakings carried out by SMC is inclusive of the building of classes, latrines, re-construction of classes, providing desks to the schools, constructing water tanks and other school relevant materials and resources. A study was undertaken by Micheni (2007) on the role of religious school sponsors in management of government-sponsored secondary schools in South Imenti District. The study revealed that the church sponsors were not contented with the role assigned to them in the Education Act hence a somehow negative attitude. They demanded for a greater role in areas such as financial management, infrastructural development and autonomy in appointment of support staff.

Ojwang (2015) did a study on the causative aspects of development of infrastructure in government run primary schools in Makueni County, Kenya. He established that attitude affects the degree to which stakeholders participate in the infrastructural development. Most of the stakeholders such as parents have a negative attitude towards their involvement in infrastructure development. They are of the idea that it is the role of the government to facilitate development and not theirs hence hindering them from being directly engaged in the development procedure. For example a Parent

Teacher Association member for reported that ‘some stakeholders have a negative attitude towards infrastructure development. Some of the members in the school tend to hold that infrastructure development is a responsibility of the government. As such, they do not contribute any resources or labour towards the development process’’. Another PTA member further reported, “Some of the stakeholders have a negative attitude towards infrastructure development. They say that primary education is free hence they do not want to give money for buildings.”

Attitude has been found in this study as a major challenge on the involvement of stakeholders in infrastructure development. Most of the stakeholders are of the idea that development is for the government and thus they are not necessarily to be involved. A study was carried out by Roy (2008) to examine the attitude towards school infrastructure of students in primary schools. The study found that attitude determined the extent to which members were motivated to use infrastructure as well as maintain it. Another study carried out by Gallagher, Ferreira and Convery (2005) on the public attitude towards solid waste landfill infrastructure showed that there was a correlation between attitude and the development of the infrastructure. Ojwang further notes “The attitude of the stakeholders affects their involvement in infrastructural development differently. Positive attitude towards infrastructural development rises when there is full involvement of the members in the infrastructure development process.”

On the evaluation of the Preschool Education Project in 1982, recommendations on the continuity of the project activities were placed via the establishment of a National Centre for ECDE (NACECE), developed in the year 1984 to complement the development, assessment of early childhood education. After this, the implementation of District Centres

for Early Childhood Education (DICECE) was done in 1985.This was aimed at devolving the support of Early Childhood Education. The Gachathi and Kamunge educational commissions from 1976 and 1988 were very vital in the establishment of a better appreciation of preschool initiatives within the Ministry of Education hence necessitating the government's expansion of the Early Childhood Education Programme.

According to KESSP (2005), Early Childhood Development and Education undertakings are very vital in the development of the country socially and economically. Those from societies that are so not well off in the access of ECDE services are more probable to enroll in primary school at the rightful age and their drop-out at a low rate, improved performance than the children who don't go to the schools.

A few number of the Early Childhood Development Education Centres are located in places such that are far for most children. Individuals who might end up setting high fees that most families cannot afford privately own most of these Centres. Children who might be lucky to have been enrolled are forced to walk long distances until they are exhausted by the time the reach school. This definitely affects their performance. The children are too tired to concentrate. It can hence be in conclusion that, work is still to be done if ECDE activities are to be felt on individuals.

2.3 Policy and growth of ECD centre's

Policies that guide all the activities and programmes associated with the development of early childhood development Centres plays a key role on the performance of these Centres. Mostly, early childhood development Centres are motivated by the workforce that is needed (Kagan, 1994). Due to this, preparation undertakings for those laboring with children are as dissimilar as the services.

Achieving Education for All (EFA) includes the expansion and improvement of all-inclusive ECDE, more so for those who are most disadvantaged and vulnerable children (Goal 1). The 2007 EFA Global Monitoring Report emphasized on the convincing case for Early Childhood Development Programmes that are developed in a better way (UNESCO, 2007; 2008). Holistic ECDE undertakings better the health of the children, their nutrition and overall development making them in a better position to start the learning process.

The first pre-school was developed in Kenya in the year 1940s aimed for the exploitation of the European and Asian societies. The pre-schools were later started in African regions more so in the urban areas.

The government of Kenya in combination with Bernard van Leer Foundation formed the Preschool Education Project, based at the Kenya Institute of Education (KIE) Nairobi. The intention of the undertaking was to improve the quality of the pre-school education via the development of the training systems. The ECD policy framework of 2006 ensures that services are provided in support of young children. Additionally, this policy Framework is used to guide the Government in its pledge of resources in support of young children.

This policy is therefore important for addressing the total well-being of young children. Constitution of Kenya 2010 has further mandated the county governments to oversee ECD .The Basic Education Act 2013 strengthened ECD by mainstreaming pre-school in basic education. The senate bill awaiting enactment also emphasizes the role of ECDE in the holistic development of the child. Siaya County has further developed a policy to guide ECDE service provision at the county level including infrastructural development.

Ojwang (2015) studied the causal effects of infrastructure development on public primary schools in Makueni County, Kenya. He revealed that a number of the head teachers (88.9%) confirmed that the policies put in place by the government encouraged training of head teachers' involvement in infrastructural management and development. 85.2% of the head teachers confirmed that that they were cognizant of the policies that the government has put in place in regard to infrastructure development in public schools. A few of them (14.8%) indicated that they were not aware. In terms of resource mobilization plans, majority of the head teachers (74.1%) indicated that the school has a resource mobilization plan and policies which aid infrastructure development policies. A quarter of them (25.9%) indicated that there were no such policies in the school. Majority of the head teachers (81.5%) were positive by agreeing that the available policies encouraged the involvement of teachers in mobilizing resources for infrastructure development in their schools. A few of them (18.5%) however disagreed to the latter. Majority of the head teachers (88.9%) indicated that the policies put in place by the government encouraged training of head teachers' involvement in infrastructural management and development.

Ojwang (2015) also noted that the PTA members highlighted that there were a number of policies which had been put in place to govern infrastructure development in

schools including the procurement policy and the School health policy. However, one of the head teachers went on ahead to report that: The procurement policy has been posing a challenge in the infrastructure development process in the school. The members of the BoM were also agreed that government policies had affected infrastructure development processes in public schools. They reported the clear lack of clarity on the different roles that various stakeholders were supposed to play in the development process. Furthermore, the policies were reported as to delay the procurement of the required materials for facilitating the construction of infrastructure in the school as the bureaucracies are too tight

2.4 Financial allocation and growth of ECD centres

The Working Group of Early Childhood Development (WGECD) of the Association for the Development of Education in Africa (ADEA) (Tokington, 2001) concluded that a variety of ECDE projects and programmes were present in Africa but were not coordinated, inadequately funded of quality and relied on NGOs support, national and international organizations for their existence. Minimal financial commitment was available by governments hence leaving it to the Civil Society Organizations to support. The report further pointed out that there was little attention on evaluating and monitoring data. However ECDE undertakings are designed to help in the improvement of cognitive and social-emotional functioning of preschool children and influences their school readiness and future learning. Moreover, a variety of challenges has led to the difficulty in the carrying out of professional preparation by practitioners of which the given challenges need to be addressed. According to the Kagan (1994), the thoughts and actions to better the system has aided a great deal in acting as a bridge between the given challenge and its success. An increased knowledge and skills and that of finance has been advocated for not

forgetting adequate compensation and remuneration the staff. Morgan (1993) revealed that within each system, obstacles to improved early childhood professional development exist.

Glantz (1991) pointed out that a quiet a number of the ECDE teachers earn less than $11,000 per year. The while the yearly earnings of family child care providers before expenses on the other hand average to less than $10,000 per year. It is impracticable for the expectation of those earning the given salaries leaving them the option of seeking further professional preparation without additional reward. Those preparing to work in public schools may find that they are more attractive job contestants when they hold a more generalized teaching certificate than a specialized early childhood certification.

A study was undertaken by Knodel (1996) on how child support payments influenced developmental results for those children undergoing pre-schooling. The study found out that those children undertaking pre-schooling are more likely to have more support even at a better rate than other places. The study further revealed that other support to children was not as largely felt as the family income's effect on the children's cognitive level. The support of children also does have an improvement on the mental development of the child with all other factors constant. Premature girls face a challenge in academics on the separation of their caregivers; the support of children positively influences education of mature children. The children who are supported attend schooling more as compared to those not supported.

The results of this research revealed that on the increase of finance boost of those without fathers could be of benefit for those children with only a mother. Although the study looked into the impact of child support on learning, it failed to consider both parents'

socio-economic status, level of education and their participation in child's school related activities.

ECDE undertakings are allocated for some small amount in the national budget which should not be the case as it should be allocated to more funds, seeking for approaches that are not bulky budget-wise; different platforms that can finance it could also be sought for.

Ojwang (2015) did a study on the influence of infrastructure development in public primary schools in Kathonzweni Division, Makueni County, Kenya. He established that major sources of funds for school furniture and infrastructure include parents' contributions (66.7%). These contributions (66.7%) are the major sources funds used in facilitating the development of kitchen facilities in schools. A significant majority of the head teachers (93%) indicated that the funds provided for infrastructure development were in adequate. This study also revealed that PTA, BOM members and AEO, DQASO and DEO reported that the main sources of infrastructural development funds in primary schools included parents, CDF funds, government allocations and MoEST. However but this was still seen as inadequate. Majority of the head teachers (85.2%) agreed that parents' contribution were used to raise money for development of school infrastructure school. 74.1% of them also indicated that government allocation was a crucial method used for generating funds to facilitate infrastructure development in the schools. Other key methods suggested by the head teachers included CDF Funds (66.7%), donors (33.3%) and religious organizations (25.9%) respectively. The bulk of the head teachers 17 (63%) were in concurrence that the availability of funds to a given level influenced infrastructure development in their respective schools. A good number were also in support of this finding at 9 (33%) who

revealed though to a small degree, availability of adequate funds influenced infrastructure development.

Funding for physical infrastructure in primary school, has over the years been part of the overall school financing. Physical infrastructure funding will involve the funds or efforts expected on building, land, physical environment, furniture and black wall either in form of repair and maintenance, construction and infrastructure management. Primary school physical infrastructure funding has been a challenging undertaking especially due to scarcity of resources and capacity constraints (Elcher, 1989).

2.5 Management of infrastructure development and growth of ECD centres.

School administrations should increase school facilities and human resources like teachers. This could be of great aid in the distribution of class sizes. A study research undertaken by Kraft (1994) on the ideal sizes of class and how it influences appropriate education in Ghana revealed that class sizes above 40 negatively influenced the performance of children. In addition, Asiedu-Akrofi (1978) revealed that pupils are diverse in their capacities and other factors hence need for smaller rooms to facilitate individual attention.

ECDE importance is continually preached in diverse regions worldwide through various leaders. This could be effective when diverse great approaches such as communication are employed. For given approaches to be influential, analytical researches should be undertaken that have direct effects to the child, as per the guidelines as laid down in the Convention on the Rights of the child, the establishment of achievable child friendly standards clarification of the society's role in child upbringing.

A research was undertaken by Mogute (2013) on how school management committees affect the provision of educational resources in government run primary schools Kisii South District, Kenya. The findings showed that 60% of the SMCs met regularly to deliberate on matters related to teaching and learning resources. They were further involved in the allocation of the so said teaching and learning resources in their respective schools. The SMCs regularly inspected school facilities with the intention of making sure all the compositions of institution are workable. They were actively involved in the budgeting for the schools maintenance. They were also involved in the mobilization of funds for their schools and in the budgeting of the school funds as recommended.

A study by Namunyu (2012), on how the schools management improved the government run schools in Busia district established that in an effort to supplement government in enhancing teaching and learning resources, SMCs had decided to construct and renovate classrooms, provide desk, fence school compound and even hire volunteer teachers Andrew and Henry (2012), while investigating challenges in achieving effective school leadership and management in Kisii county established that 90 per cent of the conflicts among the School Management Committee arose from lack of transparency on school fund expenditures with 30 per cent of the members feeling that more often than not they were usually left out in major decision making process.

A study by Ayeni and Adelabu (2011), revealed that team that management team is the one accountable for the facilities in the schools and their workability. The school heads as part of the SMC are entitled with motivating staff members and the students to maintain the school culture. Equally the teachers should help the leaders to maintain the infrastructure present in school. Dilapidation of deterioration of the items should be

reported to the school heads on time for appropriate maintenance action.

2.6 Theoretical Review

The study was guided by a theory that the induction of education is in line with the economic production function. The theory aid in relation of a variety of factors that affect the education outcomes such as school infrastructure, family, peers and students neighborhood to measure output such as the quality of education which may include improved enrolment, improved academic performance and talent development. James S. Coleman in 1966 (Hanushek, 2008) was the brains behind educational production process. According to the Coleman report, the marginal effect of various school inputs e.g. family and friends was small compared to the impact of the school infrastructure. After Coleman, a number of scholars have been able to use education production function theory including Campbell, Hobson, McPartlenad, Mood and Frederic to establish the quality of educational opportunities in the United States of America (Hanushek, 2008)

The education production function can be symbolically presented as:

$Q = F (I, T, B, E…)$

Where Q represents the output and is an input of variables include I (School infrastructure), T (Teachers), B (Books), E (Equipment) among other learning requirements a child needs in school.

This model will be adapted with modifications since this study will focus on Stakeholder attitudes, Policy on infrastructure development, Financial Allocation and Management of

infrastructure as the independent variables and Growth of ECD centre's as the dependent variable. The function will be symbolically be represented as.

G = F (A, P, F,M)

Where G is the quality of education, A is the Stakeholder attitudes, P is the Policy on infrastructure development, F is the Financial Allocation and M is the Management of infrastructure.

This production function will guide the researcher in establishing the influence of the independent variable: Stakeholder attitudes, Policy on infrastructure development, Financial Allocation and Management of infrastructure as the independent variables on the Growth of ECD centre's as the dependent variable.

2.7 Conceptual Framework

The conceptual framework of this study is based on the inter-relation between early childhood development Centre's (dependent variable) and certain factors, policies, financial frameworks and access (independent variables). The idea of 'guided participation' puts a lot of emphasis on child involvement and adult's roles in their development. The diversity in skills and communication between these two parties (children and adults) exists. This idea opens out Vygotsky's theory, which this study adopts that emphasizes the 'zone of proximal development' by emphasizing on the duties of communication and empowering the development of children.

Figure 1.1 shows infrastructure development factors and their influence on early childhood education growth.

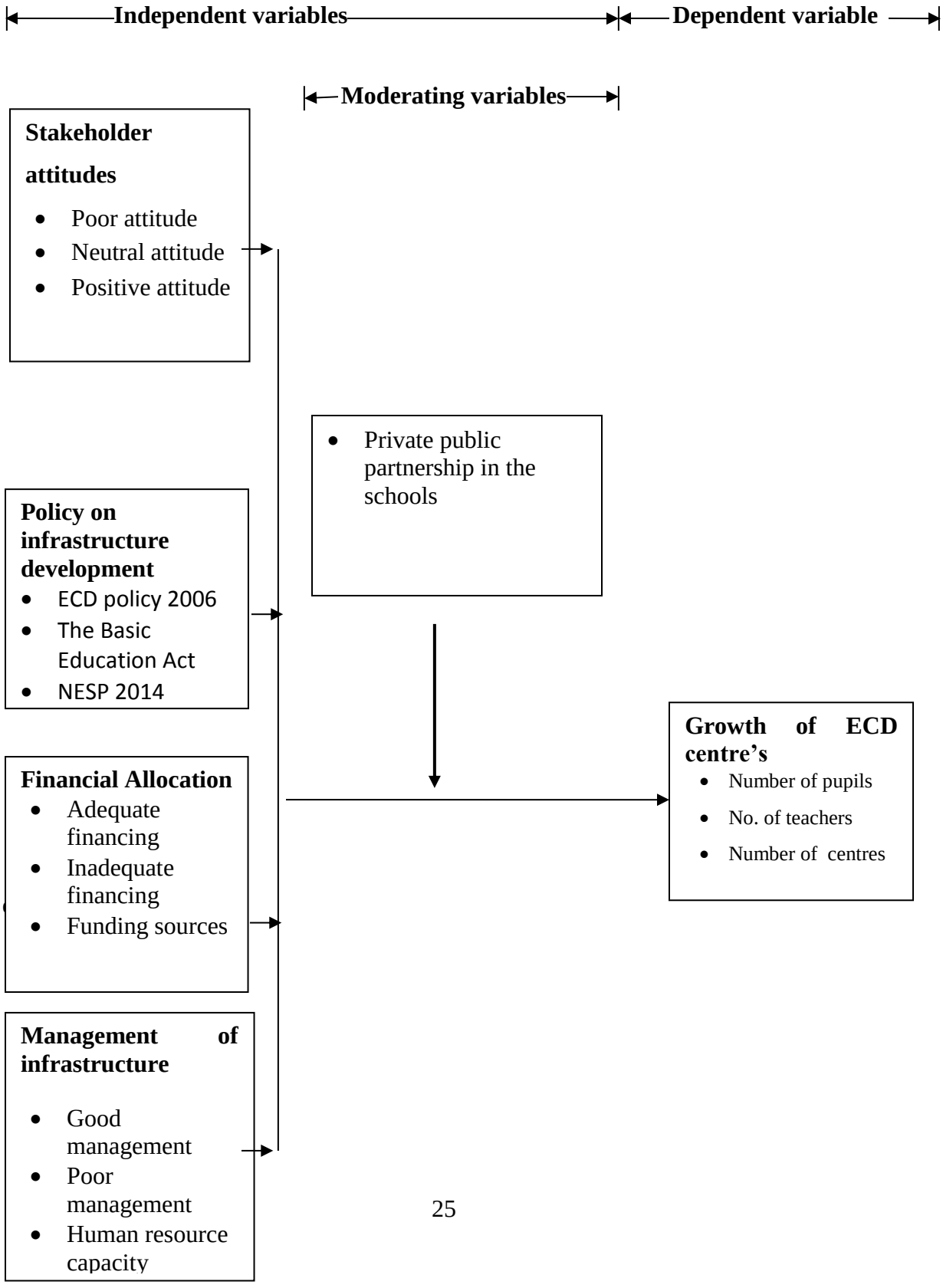

Figure 3.1: Influence of infrastructure development on growth of Early Childhood Education

From the conceptual framework it is expected that with an improvement of the stakeholders attitude towards infrastructure development, it is expected that there will be growth of the ECD centres through accessing more teachers, increased enrolment and improved number of centres. It is also expected that proper adoption of the available policies such as the ECD policy 2006, the Basic Education Act(2013) and the NESP, there will be growth of the ECD centres through accessing more teachers, increased enrolment and improved number of centres and vice versa.

It will also be expected that with adequate financial allocation to the ECD it will be expected that there will be an improvement in the number of teachers, centres and the number of centres and vice versa. Lastly it is expected that with good management of the infrastructure, current school infrastructure status will be maintained and funds to support more infrastructure will be available.

2.8 Definition of operational variables

Policies: The ECDE Policy, the ECD standards and guidelines and the NESP play a key role on the performance of the Early Childhood Development Centres providing a framework ensuring a whole strategy to child development.

Financial Frameworks: Much money is needed to ensure effective working and implementation of ECD Centres as well as their performance. For instance they need health related strategies that can prevent heath related challenges. Empowering of parents is vital

to fully support holistic child development while integrating other vital aspects of child development.

Access: Access in terms the geographical location as well as distance of these Centres a substantially effects the performance of the ECD Centres.

These conceptual factors (Figure 1) were used to categorize the concepts that were considered for the study.

2.9 Knowledge Gaps

The review of literature indicates that a lot of research has been conducted on factors that affect learning of children. For instance the study by Saled, Gondal and Bushra (2005) focused on primary school outcomes and factors that affect this achievement. This study was also carried out in Pakistan a country that doesn't belong to the African continent. Another study by Mwesa (1999) investigated on the differences in secondary examination learning between mission and government schools in Zambia. Moyo, Wadesango and Kurebwa (2012) focused on the influencers' of induction of Early Childhood Development Programmes (ECD) in Zimbabwe. There are also some studies that have been carried in Kenya, while Wario (2000) undertook a research in Marsabit District, Eshiwani (1983) conducted his research in Western Province of Kenya and Monari (2007), in Nyacheki Division, Gucha District. However, none has been conducted in Bondo sub-county, Siaya County. It is therefore necessary that a study is conducted to examine the influence of infrastructure development on the growth of ECD centres in Bondo sub-county.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter presents design employed in conducting the research on the influence of infrastructure development on the growth of ECD centres in Bondo sub-county. It includes: research design, the population of target, sample and sampling procedure, instruments used to collect data, validity and reliability of research instruments, data collection procedure, data analysis procedures and ethical considerations.

3.2 Research Design

Research design is a plan of action to be carried out in connection with the proposed research work. Ogula (1998) asserts that survey studies have the purpose of describing and reporting how activities are. These studies therefore are useful when collecting data about people's educational or social issues (Orodho and Kombo, 2002). They are distinguished by data collected from a sample population. This method provides a suitable instrument for collecting a great amount of data on similar data items over a short period of time. Hence this design was particularly chosen in this study to collect and analyze information from the members of a sample which included Early Childhood Development Education Centres teachers and administration in Bondo sub-county in Siaya County. It is also suitable for collecting both qualitative and quantitative data.

3.3 Target Population

The targeted population in this study included the teachers and administrators in the Early Childhood Development Centres in Bondo sub-county in Siaya County. i.e. Sub-county Education officers, DICECE Officers, ECDE teachers/ centre administrators and head teachers. In Bondo sub-county, there is 1 sub-county Education Officer, 440ECDE teachers,230 Head teachers and 3 DICECE officers. It is expected that this population provided crucial information on the influence of infrastructure development on the growth of Early Childhood Development centres.

3.4. Sample Size and Sampling Procedures

3.4.1 Sample Size

A sample is a representation of a larger population. (Mugenda&Mugenda, 1999).Keen selection of the representative group was done that has got similar characteristics of the larger group. The sample for this study consisted of a representative number of teachers and administrators at the ECDE Centres in Bondo sub-county, the sub-county Education Officer and DECECE officers also formed part of the sample.

This study employed Krejcie and Morgan (1970) formula to determine the sample size from the populations; this was obtained from the pre-generated table in appendix IV. The samples for the different target groups have been obtained as shown in the table 3.1.The sample size for the study was therefore obtained as 248 respondents.

Table 3.1: Sample size determination

Target group	Population	Sample	Computations
Sub-county Education Officer	1	1	$\frac{1}{674} * 248 = 1$
DICECE officers	3	1	$\frac{3}{674} * 248 = 1$
ECDE teachers	440	161	$\frac{440}{674} * 248 = 161$
Head teachers/Administrators	230	85	$\frac{230}{674} * 248 = 85$
Totals	674	248	248

3.4.2 Sampling Procedure

To select the respondents, a simple random sampling technique to select the ECDE teachers was employed in this study. This was done by writing numbers on small pieces of papers which then folded and placed in a basket and turned several times to mix them up. A paper was then picked at random and the selected number matched to the corresponding to the number picked on the list of teachers obtained per centre. Only one ECDE teacher was selected per centre, in the event that a second teacher was picked from a Centre, the paper was returned. Mixing and picking was done until the required sample size is obtained. This process was repeated for the ECDE administrators. The sub-county Education Officer and the DICECE Officers were then selected using purposive sampling

Which gives room for the researcher to exploit the cases that are relevant to the respective study objective (Magenta 2008).

3.5 Data Collection Instruments

The main tools used in data collection were questionnaires and interview guides. The questionnaire was used particularly to collect data from the ECD teachers/ centre administrators and head teachers. For the study to reach a variety of respondents, the questionnaires were then seen as appropriate. This also provided enough time for their administration as well as confidentiality of the respondents (Owens, 2002). The questionnaire was divided into the main areas of investigation and the demographic characteristics of the respondents. The questionnaire for teachers consists of five sections. The first section (Section A) is on demographic information (Age, Sex, level of education and teaching experience) whereas the other sections entail factors affecting the performance of the early childhood development education Centres.

The interview guide was used to collect primary, qualitative data from the administrators. The reason this instrument was employed is that; cooperation is achieved hence an increased response quality. (Owens, 2002).Interview Schedule consists of two sections but most of the items are open ended. Section A consists of demographic information (Sex, Occupation, level of education, Designation), the other sections comprise of questions about the infrastructure development factors and their influence on early childhood education growth. These were administered to the sub-county Education Officers and DICECE officers.

3.5.1 Pilot Testing

A pilot study is undertaken on members of the representative population but who would not be engaged in the study thereafter. The data collection instruments were tested to ascertain whether they can be able to collect data that answers the study objectives (Mugenda et.al, 2003). Piloting of the questionnaire assisted in phasing out some questions and restructuring others as a way of enhancing validity and reliability of the research questionnaire. The researcher employed convenient sampling technique at Winam division of Kisumu County and its environs, a total of 10 respondents were engaged in the testing of the Interview guides and Questionnaires. This sampling technique is favored due to its speed, relatively cheap and present.

3.5.2 Validity of Research Instruments

Validity is known as the level to which a research instrument measures what it is meant to measure. According to (Ogula, 1998), we have got content, construct and predictive validity. Construct and face validity was employed to test the validity of the tools in this survey. Considerations on the improvement of the tools were also looked into.

3.5.3 Reliability of the Research Instruments

Mugenda and Mugenda (1999) revealed that reliability is known as the degree of a research instrument to consistently measure characteristics of interest time and again. Reliability is in line with consistency, dependability or stability of a test (Nachmias, 1996).

This was put to test by the use of split-half technique that entailed only one testing session factoring in time. The split-half method takes care of the two halves of a measure as alternate forms. This "halves reliability" estimate is then stepped up to the full test length using the Spearman-Brown prediction formula. The most common internal consistency measure is Cronbach's alpha, which is usually interpreted as the mean of all possible split-half coefficients. The data was entered by the use of SPSS application to determine Cronbach's reliability coefficient. For instrument reliability, a few numbers of other Early Childhood Development Education Centres were used in data collection for pilot testing that was excluded from the study. The Cronbach's reliability coefficient was calculated and an average of 0.82 established across all the Likert scale questions, the data collection instruments were therefore considered reliable. A Cronbach's reliability correlation coefficient greater or equal to 0.7 is acceptable (George and Mallery, 2003).

3.6 Data Collection Procedure

Upon getting cleared from the college by the supervisor, the researcher proceed to the field for data collection on the factors affecting the performance of the early childhood development education Centres in Bondo sub-county in Siaya County. The researcher first fixed appointments with the head teachers/administrators of the early childhood development Centres in the area of study. This was done with an aim of getting introduced to the school fraternity and distributing the questionnaire to the individual teachers. Over a distributed period of time, the researcher interviewed head teachers/administrators of the selected schools. During the visit to the centres, the researcher personally made contacts with the ECDE teachers, inform them about the study and seek their consent. A questionnaire was then be left with them, the researcher picked the questionnaires after a period of three days. Upon picking the questionnaires, an on-spot check was done to confirm completeness and clarity of responses. The researchers walked in and around the ECDE centres with an observation checklist and complete it appropriately.

3.7 Data Analysis

Data analysis was employed by assigning numbers to close-ended responses in the questionnaire. On the other hand items or questions in the questionnaires and interview schedules that are open-ended were categorized according to the themes that emerged from the research questions and all the responses were analyzed in a narrative form. Once the questionnaire and interview schedule instruments were administered, the raw data collected was systematically organized in a manner that facilitates analysis. Raw data were combined into themes and then summarized into frequency tables and percentages. The

coding of categorized data was done in line with the various themes in the questionnaire. Data were put in SPSS. Descriptive statistics comprised of tabulation of frequencies and percentage distribution, measures of central tendency and standard deviations. The data that was analyzed was represented in tables of frequency and percentage distribution, bar graphs and pie charts.

3.8 Ethical Consideration

A study done by McNamara (1994) revealed that ethical issues in research revolve around not only voluntary participation but also security of the respondents, anonymity and confidentiality. Identification of the sponsor's purpose, analysis and reporting are also considered. Participant identification was kept confidential and was only be used in determining who had not responded to a particular question for follow-up purposes. All prospective respondents were informed about the purpose of the survey and the institution that is hosting. A cover letter was used to explain that the results of the study would be used in a thesis as partial fulfillment for a Master's degree. The researcher accurately reported both the methods and the results of the surveys to professional colleagues in the educational community. Advancements in academic fields come through honesty and openness, the researcher assumed the responsibility to report problems and weaknesses experienced as well as the positive results of the study.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSIONS

4.1 Introduction

This chapter analyzes the data collected from the respondents, presents and interprets it. The researcher also goes ahead to discuss the findings in light with the previous studies done on the same themes to establish areas of convergent and divergent views. The sub-topics discussed here are aligned to the study objectives and include: Respondents' bio-data, Stakeholder's attitude towards infrastructure development and growth of ECD centres, Policy on infrastructure development and growth of ECD centres, financial allocation on infrastructure development and growth of ECD centres, finally, management of infrastructure development and growth of ECD centres.

4.2 Questionnaire Return Rate

The researcher worked out the questionnaire response rate for the study and is as presented in Table 4.1

Table 4.1: Response Rate

Category of respondent	Sample	Questionnaire returned	Response rate
ECDE teachers	161	161	100.0
Head teachers/Administrators	85	85	100.0
TOTAL	**246**	**246**	**100.0**

A response rate of 50% is considered adequate for analysis and reporting, 60% is good and that of 70% and above is very good (Mugenda and Mugenda, 2003).This study recorded

and overall of 100.0% return rate which was considered very good for analysis, interpretation and generalization. The high response rate among the respondents was attributed to support, cooperation accorded by the sub-county Education office, the Education Management Information Systems Officer was very instrumental in coordination the data collection exercise. The teacher respondents were also overly cooperative.

4.3 Respondent Bio-data

This section analyses, presents and interprets the respondents bio-data, this comprises: Gender, Age, and Highest level of education attained.

4.3.1 Gender of the respondent

The respondents were asked to indicate their gender and the response was as shown in Table 4.3

Table 4.2: Gender of the respondent

Gender		
	Frequency	**Percent**
Male	130	52.8
Female	116	47.2
Total	**246**	**100.0**

Majority of the respondents were males at 130(52.8%) while the minority of the respondents was females at 116(47.2%). It was further established that the preponderance of head teachers/administrators were male while teaching at the ECD was dominated by female teachers. Gender balancing was clearly lacking in the two roles.

4.3.2 Distribution of respondents by age

The respondents were asked to indicate their age categories; the results were as shown in Table 4.4

Table 4.3: Age of the respondent

	Frequency	Percent
20-29	30	12.2
30-39	71	28.9
40-49	84	34.6
50-60	55	22.4
Above 60	5	2.0
Total	**246**	**100.0**

Majority of the respondents were of age bracket 40-49 at 84(34.6%). It was followed by respondents of age bracket 30-39 at 71(28.9%).The number of respondents of age bracket 50-60 were 55(22.4%).Some of the respondents were of age bracket 20-29 at 30(12.2%).The least number of respondents were of age bracket 60-above at 5(2.0%).This meant that the majority of the teaching staff were youthful and energetic enough to deliver quality learning through innovative approaches. Given that the retirement age for teachers is 60 years, this meant that there was an issue of none compliance in some schools.

4.3.3 Distribution of respondents by Highest Educational of Education

The respondents were asked to indicate their level highest level of education; the results were as shown in table 4.5

Table 4.4: Highest Educational Level

	Highest Educational Level						Total
	O-Level	**A-Level**	**Diploma**	**Bachelors Degree**	**Masters Degree**	**Other Professional Qualification**	
SMC/Head Teacher	16	13	36	15	4	1	85(34.5%)
ECD Teachers	80	0	20	5	0	56	161(65.5%)
Total	**96(39.8%)**	**13(5.3%)**	**56(22.8%)**	**20(8.2%)**	**4(1.6%)**	**57(23.4%)**	**246(100.0%)**

Majority of the respondents had an O-Level qualification at 96(39.8%).A considerable number of respondents also had other professional qualification at 57(23.4%) which was specified as certificate and diploma in ECD proficiency. The number of respondents who had a diploma qualification were 56(22.8%) while those who had a Bachelors degree qualification were 20(8.2%). Some of the respondents who had an A-Level qualification stood at 13(5.3%). Minority of the respondents had a Masters degree qualification at 4(1.6%).The further disaggregation showed that ECD teachers had O (KCSE) level of education, while majority of the SMC/Head teachers had diploma qualification.

4.4 Stakeholder's Attitude towards Infrastructure Development and Growth of Early Childhood Development centres

This section analyzes, presents, interprets and discusses findings relating to the first objective of the study: To examine the extent to which stakeholder's attitude towards infrastructure development influence the growth of Early Childhood Education centres in Bondosub-county. This is a key factor as a negative or positive attitude will determine growth of ECD centres and subsequent support.

4.4.1 Opinions on Stakeholder's Attitude towards Infrastructure Development

The respondents were asked to give their opinion on stakeholder's attitude towards infrastructure development on Likert scale questions where 1- Strongly agree 2-Agree 3-Undecided 4 –Disagree 5-Strongly disagree. The responses were then aggregated into three, strongly agree and agree to mean agree, strongly disagree and disagree to mean disagree, while neutral was retained. The results were as shown in Table 4.6

Table 4.5: Opinions on Stakeholder's Attitude towards Infrastructure Development

Responses	Agree	Neutral	Disagree	Mean	SD
The office of the president has a positive attitude towards infrastructure development in this area	112(45.5%)	45(18.3%)	89(36.1%)	2.91	1.173
The county government has a positive attitude towards infrastructure development in this area	180(73.2%)	20(8.1%)	46(22.8%	2.31	1.003
The ministry of education has a positive attitude towards infrastructure development in this area	135(54.9%)	30(12.2%)	81(32.9%)	2.75	1.160
The parents in this school have a positive attitude towards infrastructure development in the school	181(73.6%)	16(6.5%)	49(20%)	2.31	1.070
The NGOs/CBOs around this school have a positive attitude towards infrastructure development in the area	193(78.4%)	27(11%)	26(14.2%)	2.19	.812
The faith Based organisation/Churches in this area 6have a positive attitude towards infrastructure development in the area	177(71.9%)	17(6.9%)	52(21.1%)	2.39	.999
The community around the school has a positive attitude towards infrastructure development in this area	192(78.1%)	11(4.5%)	43(17.5%)	2.24	.958
Mean of Means				2.44	

Majority of the respondents at 112(45.5%) stated that the office of the president has a positive attitude towards infrastructure development in this area, 89(36.1%) noted a negative attitude while the least at 45(18.3%) were undecided (Mean=2.91, SD=1.173). Most of the respondents at 180(73.2%) agreed that the county government has a positive attitude towards infrastructure development in this area, 46(22.8%) were not in agreement while the minority at 20(8.1%) were undecided (Mean=2.31,SD=1.003).This is in line with the Republic of Kenya(2010) that the fourth schedule of the constitution places pre-primary education and child care facilities under the county governments. The roles are further specified by Section 26 of the Basic

Education Act, 2012 which states that: The roles of the County Government include the provision of funds required for the development of the necessary infrastructure for institutions of basic education. Most of the respondents at 135(54.9%) stated that the Ministry of Education had positive attitude towards infrastructure development in the area, 81(32.9%) were in disagreement with the least at 30(12.2%) being undecided whether the Ministry of Education has a positive attitude towards infrastructure development in this area or not (Mean=2.75,SD=1.160). It was popular among 181(73.6%) of the respondents to agree that the parents in the schools had positive attitude towards infrastructure development, 49(20%) disagreed while the minority at 16(6.5%) were unclear whether the parents in this school have a positive towards infrastructure development in the school or not (Mean=2.31, SD=1.070). This finding contradicts that of Ojwang (2015), he noted that most of the stakeholders such as parents had a negative attitude towards involvement in infrastructure development. They are of the idea that it is the role of the government to facilitate development and not them hindered them from being directly involved in the development process.

It was widely held at 193(78.4%) that NGOs and CBOs around the school have a positive attitude towards infrastructure development in the area, 27(11%) were undecided while the least at 26(10.6%) stated that NGOs and CBOs around the school have negative attitude towards infrastructure development in the area (Mean=2.19,SD=0.812).

Most of the respondents at 177(71.9%) agreed that the faith based organization /churches in the area have a positive attitude towards infrastructure development in the area, 52(21.1%) were unclear as the minority at 17(6.9%) stated that the faith based organization /Churches

in the area have a negative attitude towards infrastructure development in the area (Mean=2.39, SD=0.999). This also applied to the community around the school whereby majority at 192(78.1%) stated that the community around the school has a positive attitude towards infrastructure development in this area, 43(17.5%) were in disagreement with the least at 11(4.5%) being undecided (Mean=2.24, SD=0.958). The findings converge with those of Namuyu(2007) who revealed that the school project donors included not only the government through the Ministry of Education and Community Development Funds (CDF) but also parents, NGOs and CBO .Projects undertaken by SMC included classroom construction, latrine construction, classroom renovation, desk provision, hiring of teachers, education tour for pupils, drilling boreholes, feeding programme, tree planting, fencing of school compounds, water tank construction and purchase of instruction materials. However a the findings of this study diverges with those of Mucheni (2007) which revealed that the church sponsors were not contented with the role assigned to them in the Education Act hence a somehow negative attitude. They demanded for a greater role in areas such as financial management, infrastructural development and autonomy in appointment of support staff. There was however uncertainty whether the office of the president and the Ministry of Education's had positive attitude towards infrastructural development of the ECD centres. This could be as a result of lack of awareness more so now that currently ECD is under the county governments.

Asked to explain the extent to which stakeholders' attitude towards infrastructure development influenced the growth of Early Childhood Development centres, the Bondo sub-county DICECE Officer said that the stakeholder attitudes towards infrastructure development have influenced the growth of ECD centres in Bondo to a large extent. The DICECE officer said that the stakeholders have had a positive attitude towards and this has

seen them contribute significantly to ECD infrastructural development leading to growth .of ECD centres. This diverges with Ojwang (2015) who asserts that most of the stakeholders including parents had a negative attitude towards participation in in infrastructure development. In the study, Ojwang reports that AEO, the DQASO officer said that: "The attitude of the stakeholders affects their involvement in infrastructural development differently. Positive attitude towards infrastructural development rises when there is full involvement of the members in the infrastructure development process."

4.4.2 Correlation between stakeholder's attitude towards Infrastructure development and Growth of ECD Centres

The researcher used Pearson Correlation analysis to establish the magnitude and direction of the relationship between stakeholder's attitude towards Infrastructure development and Growth of ECD Centres; the results were as shown in Table 4.7

Table 4.6: Correlation between stakeholder's attitude towards Infrastructure development and Growth of ECD

		ECD Centres' Growth	**Stakeholder attitude on infrastructure dev.**
ECD Centres' Growth	Pearson Correlation	1	.120*
	Sig. (2-tailed)		.028
	N	246	246
Stakeholder attitude on infrastructure dev.	Pearson Correlation	.120*	1
	Sig. (2-tailed)	.028	
	n	246	246

***. Correlation is significant at the 0.05 level (2-tailed).**

The study reveals that there was a significant weak positive relationship between stakeholder's attitude towards Infrastructure development and Growth of Early Childhood Development Centres (N=246,C.L.=95%,r=0.120*, p>0.05).This means that positive attitude among stakeholders on infrastructure development would positively affect the growth of ECD centres in Bondosub-county. The relationship was found to be significant meaning that stakeholder attitude on infrastructure development was critical in explaining the variations in the growth of ECD centres in Bondo sub-county. This finding is in line with those of Ojwang (2015) who noted that attitude affects the extent to which stakeholders are involved in the infrastructural development. A study was carried out by Roy (2008) to examine the attitude towards school infrastructure of students in primary schools. The study found that attitude determined the extent to which members were motivated to use infrastructure as well as maintain it. Another study carried out by Gallagher, Ferreira and Convery (2005) on the public attitude towards solid waste landfill infrastructure showed that there was a correlation between attitude and the development of the infrastructure.

4.5 Policy on Infrastructure Development and Growth of Early Childhood Development Centres

This section analyzes, presents, interprets and discusses findings relating to the second objective of the study: To examine how policy on infrastructure development influences growth of Early Childhood Development n centres in Bondo sub-county.

4.5.1 Opinions on Policy on Infrastructure Development

The respondents were asked to give their opinion on stakeholder's policy on infrastructure development on Likert scale questions where 1- Very high extent, 2- High extent 3- Average Extent 4 –Low Extent 5-Very Low Extent. The responses were then aggregated into three, Very high extent and High extent to mean high extent, Low extent and Very low extent to mean low extent, while average extent was retained. The results were as shown in Table 4.8

Table 4.7: Opinions on Policy on Infrastructure Development

Responses	High Extent	Average Extent	Low Extent	Mean	SD
The ECD policy 2006 calls for a collaboration of parents, government, NGOs, etc in supporting the ECD sector to support learning, to what extent do you observe these stakeholders collaborating?	70(28.4%)	119(48.4%)	57(23.2%)	2.94	.959
The constitution of Kenya calls for free and compulsory, to what extent has the government developed infrastructure to support the ECD education?	39(15.9%)	90(36.6%)	117(47.6%)	3.39	.944
The basic education act calls for coordination of all relevant agencies to ensure that all the barriers to the right to quality basic education are removed, to what extent are barriers to ECD education removed in this area?	66(26.8%)	113(45.9%)	67(27.2%)	3.07	.906
The second medium term Plan calls for the establishment of ECDE resource centres in each of the 47 counties, to what extent are ECDE resource centres established in this area?	45(18.3%)	96(39%)	105(42.7%)	3.40	.963
The national Education Support Plan NESP establishes the DICECE for purposes of in servicing teachers, to what extent is the DICECE support this school?	64(26%)	132(53.7%)	50(20.3%)	3.00	.892
To what extent do your school policy on teaching and learning support infrastructure development?	101(41%)	121(49.2%)	24(9.7%)	2.55	.914
Mean of Means				3.06	

Majority of the respondents at 119(48.4%) rated the collaboration of the parents, government, NGOs in supporting the ECD sector to support learning as average, 70(28.4%) gave it a high rating with the least at 57(23.2%) giving it a low rating (Mean=2.94,SD=0.959). It was common among 117(47.6%) of the respondents to rate the extent to which the government developed infrastructure to support the ECD education as low, 90(36.6%) rated it as average with the minority at 39(15.9%) rating it as high (Mean=3.39,SD=0.944). Most of the respondents at 113(45.9%) rated at average the coordination of all relevant agencies in ensuring that barriers to the right to quality basic education are eliminated, 67(27.2%) rated it as low with the least at 66(26.8%) rating it as high (Mean=3.07, SD=0.906). Majority of the respondents 105(42.7%) said that ECD have been established in the 47 Counties to a low extent, 96(39%) stated to an average extent while the minority at 45(18.3%) rated it at great extent (Mean=3.28, SD=0.941).

Most of the respondents at 132(53.7%) stated that DICECE has supported schools to an average extent, 64(26%) noted that this had happened to a great extent as the least at 50(20.3%) citing a low extent (Mean=3.00, SD=0.892). Nearly half of the respondents at 121(49.2%) said that the school policy on teaching and learning had supported infrastructure development to an average extent, 101(41%) stated that the school policy had supported infrastructure development to a great extent as the minority at 24(9.7%) noted a low extent contribution (Mean=2.55,SD=0.914).The results meant that the policies have been helpful to average extent in enhancing the growth of ECD centres in Bondosub-county. These findings converge with those of Ojwang (2015) where majority of the head teachers (88.9%) indicated that the policies put in place by the government encouraged training of

head teachers' involvement in infrastructural management and development 85.2% of the head teachers also indicated that they were aware of the policies put in place by the government on infrastructure development in public schools, they mentioned that the policies were helpful. Kagan's (2004) also asserted that policies that guide all the activities and programmes associated with the development of early childhood development Centres plays a key role on the performance of these Centre's.

Asked to comment briefly on how policy on infrastructure development does influence growth of ECD centres, the sub-county DICECE Coordinator said that the policy guideline is there but that it does not specifically address infrastructural development. In explaining the ECD policy context at the county level, the DICECE Officer noted that ECD has been devolved to the counties. Consequently there has been construction and establishment of ten new ECDE centres through funding. This finding is supported by that of Ojwang (2015) that in terms of resource mobilization plans, majority of the head teachers (74.1%) indicated that the school has a resource mobilization plan and policies which aid infrastructure development policies Majority of the head teachers (81.5%) were positive by agreeing that the available policies encouraged the involvement of teachers in mobilizing resources for infrastructure development.

4.5.2 Relationship between policy on infrastructure development and growth of ECD centres

The researcher used Pearson Correlation analysis to establish the magnitude and direction of the relationship between policy on infrastructure development and growth of early childhood education; the results were as shown in Table 4.9

Table 4.8: Relationship between policy on infrastructure development and growth of ECD centres

		ECD Centres' Growth	Policy On Infrastructures Dev
ECD Centres' Growth	Pearson Correlation	1	.067
	Sig. (2-tailed)		.223
	N	246	246
Policy on Infrastructures Dev	Pearson Correlation	.067	1
	Sig. (2-tailed)	.223	
	N	246	246

It was established that there was an insignificant, very weak positive relationship between policy on infrastructure development and growth of ECD centres (N=246, C.L.=95%,r=0.067, p>0.05).This meant that improvement in policy making and its implementation would positively affect the growth of ECD centres in Bondosub-county. The relationship was found to be insignificant meaning that policy on infrastructure development was not critical in explaining the variations in the growth of ECD centres in Bondosub-county.

4.6 Financial Allocation on Infrastructure Development and Growth of ECD centres

This section analyzes, presents, interprets and discusses findings relating to the third objective of the study: To establish the level at which financial allocation on infrastructure development influences growth of ECD centres in Bondo sub-county.

4.6.1 Opinions on financial allocation on infrastructure development

The respondents were asked to give their opinion on financial allocation on infrastructure development on Likert scale questions where 1-Very adequate 2- Adequate 3-Average 4-Inadequate 5-Very Inadequate. The responses were then aggregated into three, very adequate and adequate to mean adequate, inadequate and very inadequate to mean inadequate, while average was retained. The results were as shown in Table 4.10

Table 4.9: Opinions on financial allocation on infrastructure development

Responses	Adequate	Average	Inadequate	Mean	SD
How would you rate the Ministry of education allocation of funds for infrastructure development	18(7.3%)	48(19.5)%	180(73.2%)	4.01	.945
How would you rate the county government allocation of funds for infrastructure	41(16.6%)	71(28.9%)	134(54.5%)	3.53	1.021
How would you rate the amount of funds the school management sets aside for infrastructure development	14(5.7%)	19(19.9%)	183(74.4%)	4.00	.860
How would you rate the amount of funds the school receives from sponsors to support infrastructure development	21(8.5%)	43(17.5%)	182(74%)	3.92	.951
How would you rate the amount of money paid by parents as school fees	21(8.5%)	69(28%)	156(63.5%)	3.76	.920
Mean of Means				3.84	

Majority of the respondents at 180(73.2%) said that the resource allocation by the Ministry of education allocation for infrastructure development was inadequate, 48(19.5%) were undecided while the minority at 18(7.3%) thought it was adequate (Mean=4.01, SD=0.945), this was the same for resources allocated by County Government whereby majority at 134(54.5%) stated that they were inadequate, 71(28.9%) were undecided while the least number of respondents at 41(16.6%) stated that they were adequate (Mean=3.53, SD=1.021). These findings support those of Ojwang (2015) who established that PTA, BoM members and AEO, DQASO and DEO reported that the key sources of funds for infrastructure development in primary schools include parents, CDF funds, government allocations and

MoEST but this was still inadequate. This finding also converge with the findings of Tokington (2001) that there was little financial commitment by governments to development of ECDs and provision and financing were left to the civil society.

It was popular among 183(74.4%) of the respondents to rate the amount of funds the school management sets aside for infrastructure development as inadequate, 19(19.9%) were uncertain as the minority at 14(5.7%) stated that it was adequate (Mean=4.00, SD=0.860). The amount of funds the schools received from sponsors to support infrastructure development was inadequate as stated by majority of the respondents at 182(74%), 43(17.5%) were undecided as the least of the respondents at 21(8.5%) stating the support was adequate (Mean=3.92,SD=0.951). The findings of the study converges with those of Tokington (2001) who noted that there were many ECD projects and programmes in Africa but were uncoordinated, underfunded and many were of low quality and that the majority of them depend on the support of NGOs, national and international organizations for their existence. Given that the funding by donor NGO was also rated as inadequate, the infrastructural developments could be seriously underdeveloped.

The amount of money paid by parents, as school was inadequate as stated by most of the respondents at 156(63.5%), 69(28%) were unclear whether the money was adequate or not as the least of the respondents at 21(8.5%) stated that the amount was adequate (Mean=3.76,SD=0.960). The findings of the study is also supported by those of Ojwang (2015) he noted that major sources of funds for school furniture and infrastructure include parents' contributions (66.7%). Parents' contributions (66.7%) are the major sources funds used in facilitating the development of kitchen facilities in schools. An overwhelming

majority of the head teachers (93%) indicated that the funds provided for infrastructure development were not adequate.

Asked about how allocation on infrastructure development influences growth of ECD centres in Bondo sub-county the Bondo sub-county DICECE Officer said that financial allocation has a positive influence on infrastructural developments on condition that the funds are managed well. This converges with the findings of Ojwang (2015) who that that majority of the head teachers 17 (63%) agreed that the availability of funds influenced infrastructure development in their respective schools to some level. This was further supported by a third of them 9 (33%) who indicated that it did influence to a greater extent. DICECE Officer expressed concern over the unabated trend of misappropriation of funds meant for ECD centre construction which have left a number of structures incomplete. He said corruption has been a deterrent to the growth of ECD in the sub-county. He further said "*the fund allocations have been inadequate and so most of the ECD infrastructures are in bad state while expansion is very minimal*. "This is supported by the assertions of Elcher (1989) that primary school physical infrastructure funding has been a challenging undertaking especially due to scarcity of resources and capacity constraints. The Bondo sub-county DICECE officer suggested that to avert these challenges, all ECDE centres need allocation for infrastructure development according to their unique financial needs. The DICECE officer then proposed financial allocations should be directed through the Ministry of Education, Science &Technology and not through the Member of County Assemblies. DICECE Officer further supported the opinion by saying that the funds need

to be disbursed directly to schools from MoEST without being channeled to the county government because it has lot of bureaucratic processes besides breeding corruption.

4.6.2 Relationship between financial allocation on infrastructure development and growth of ECD centres

The researcher used Pearson Correlation analysis to establish the magnitude and direction of the relationship between resource allocation on infrastructure development and growth of early childhood education; the results were as shown in Table 4.11

Table 4.10: Relationship between financial allocation on infrastructure development and growth of ECD centres

		ECD Centres' Growth	**Financial Allocation on Infrastructure Dev.**
ECD Centres' Growth	Pearson Correlation	1	-.031
	Sig. (2-tailed)		.570
	N	246	246
Financial Allocation on Infrastructures Dev.	Pearson Correlation	-.031	1
	Sig. (2-tailed)	.570	
	N	246	246

The study revealed that the there was an insignificant weak negative relationship between resource allocation on infrastructure development and growth of ECD centres (N=246,C.L.=95%,r= -0.031,p>0.05).This meant that increase in financial allocation would negatively affect the growth of ECD centres in Bondo. These findings converge with those of Ojwang (2015), who established that availability of funds did influence infrastructure development in their respective schools to some extent.

4.7 Management of Infrastructure Development and Growth of ECD

This section analyzes, presents, interprets and discusses findings relating to the third objective of the study: To assess how management of infrastructure development influences growth of ECD centres in Bondo Sub-county.

4.7.1 Presence of management body at the ECD centres

The respondents were asked to state whether their centre had a management body or not, the results were as shown in Table 4.12

Table 4.11: Presence of management body at the ECD centre

	Frequency	**Percent**
Yes	222	90.24
No	24	9.76
Total	**246**	**100**

Majority of the respondents at 222(90.24%) mentioned that they had a management body while 24(9.76%) said that their centre's did not have a management body. This meant that the practice of formulating ECD management to effectively run the affairs of the centres was common. The management would ensure that the children learn in a child friendly and safe learning environments.

4.7.2 Management oversight on infrastructure development of the ECD centres

The respondents were asked to state whether the management had an oversight role on the infrastructural development in the schools, the results were as shown in Table 4.12

Table 4.12: Management oversight on infrastructure development of the ECD centre

Responses	Frequency	Percent
Yes	214	87.0
No	32	13.00
Total	**246**	**100**

Majority of the respondents said that they have a management body that oversees infrastructure development of the ECD centres at 214(87.0%). Minority of the respondents denied having a management body to oversee infrastructure development in the school at 32(13.0%).This meant that the majority of the management bodies of the ECD centres were well aware of their roles and were rightly executing it, this would result into faster ECD infrastructural development. This finding converges with those of Keith (2001) that the BOM has oversight in infrastructural development besides, administration, staffing, communication, financial allocations and instrumental programmes.

4.7.3 Effectiveness of oversight role of management on infrastructural development in ECD centres

The respondents who mentioned that the management had an oversight role on infrastructural development were asked to rate effectiveness with which they oversee infrastructure development of the school. The results were as shown in Table 4.14

Table 4.13: Effectiveness of oversight role of management on infrastructural development in ECD centres

Responses	Frequency	Percent
Very effective	26	10.6
Effective	80	32.5
Average	89	36.2
Ineffective	26	10.6
Very ineffective	25	10.2
Total	**246**	**100**

Majority of the respondents rated the oversight role of the management in infrastructure development as average at 89(36.2%).A considerable number of respondents rated the oversight role of management as effective at 80(32.5%).The number of respondents who rated the oversight role of the management in infrastructure development as ineffective stood at 26(10.6%).Some of the respondents also rated the oversight role of the management in infrastructure development as very effective at 26(10.66%).A paltry of 25(10.2%) respondents rated the oversight role of management on infrastructure

development as both very ineffective and effective. This meant that the ECD management committees were doing substantially well in their oversight role on infrastructural development in schools. Given the findings of Ojwang (2015) it means that most of the BOMs in Bondo were professional, in his study majority, 93 percent of the teachers respondents indicated that BOMs who were professional were more effective than those who were non-professional.

4.7.4 Frequency of school management meeting on infrastructure development in the ECD

The respondents were asked to indicate state how often the school management meet to discuss infrastructure development of the centre, the results were as shown in Table 4.15

Table 4.14: Frequency of school management meeting on infrastructure development in the ECD centres

Responses	Frequency	Percent
Once a year	30	12.20
Once a term	165	67.07
Once a month	36	14.63
Every week	8	3.25
Never	7	2.85
Total	**246**	**100**

Majority of the respondents said that the school management met once a term to discuss infrastructure development in the school at 165(67.07%).A section of the respondents said that the school management met once a month to discuss infrastructure development in

the school at 36(14.63%).The respondents who said the school management met once a year to discuss infrastructure development stood at 30(12.20%).The respondents who said the school never met to discuss infrastructure development in the school were 7(2.85%).The minority of the respondents said the school management meets every week to discuss infrastructure development in the school at 8(3.25%).This finding converge with that of Mogute (2013) where the board of management met regularly to discuss matters touching on teaching and learning resources and 60% of the members of the SMCs regularly attended the meetings.

4.7.5 Relationship between school management role on infrastructure development and growth of ECD centres

The researcher used Pearson Correlation analysis to establish the magnitude and direction of the relationship between school management role on infrastructure development and growth of ECD; the results were as shown in Table 4.16

Table 4.15: Relationship between school management role on infrastructure development and growth of ECD centrescentre's

		ECD Centres' Growth	Management Role
ECD Centres' Growth	Pearson Correlation	1	.040
	Sig. (2-tailed)		.466
	N	246	246
Management Role	Pearson Correlation	.040	1
	Sig. (2-tailed)	.466	
	N	246	246

The study revealed that there is an insignificant weak positive relationship between school management role on infrastructure development and growth of ECD centres ($n=246, C.L.=0.05, r=0.040, p>0.05$). This meant that enhancing management practices on infrastructure development would lead to an improvement in the growth of ECD centres in Bondosub-county. The relationship was insignificant meaning that the role of the school management on infrastructure development is not critical in explaining changes in the growth of ECD centres in Bondosub-county.

The Bondo sub-county DICECE Coordinator mentioned that school management plays an integral role in ensuring the growth of ECD centres in the area. He further explained that "*the management of ECD has been informally entrusted to the School Board of Managements who have not been discharged their roles effectively to improve infrastructure*." This finding converges with that of Namunyu (2012) that the school management committees had taken upon themselves to construct and renovate classrooms, provide desk, fence school compound and even hire volunteer teachers in an effort to supplement government effort of enhancing teaching and learning resources. "*There is no clear policy on who manages infrastructure in ECD .This has negatively affected the growth of ECD centres since some of the funds meant for the ECD centres are diverted or is misappropriated*" said the DICECE officer. This finding converges with that of Maureen (2009) weak governance structures by the SMC characterized by low capacity to plan, allocate and execute budgets, weak internal controls, poor management and supervision of funds, absence of external accountability (including audits), and distorted incentives considerably increase the opportunity for mismanagement and corruption.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter gives a summary of the key findings of the study, draws conclusions on the findings and gives recommendations.

5.2 Summary of Findings

5.2.1 Stakeholder's attitude towards infrastructure development and the growth of ECD centres.

Majority of the respondents said that they were undecided on whether the office of the president has a positive attitude towards infrastructure development in this area(Mean=2.91).Most of the respondents agreed that the county government has a positive attitude towards infrastructure development in this area(Mean=2.31).Majority of the respondents were undecided on whether the Ministry of Education has a positive attitude towards infrastructure development in this area(Mean=2.75).The preponderance of the respondents to agreed that the parents in this school have a positive towards infrastructure development in the school(Mean=2.35).It was common among the respondents to agree that the NGOs and CBOs around the school have a positive attitude towards infrastructure development in the area(Mean=2.19).The bulk of the respondents agreed that the faith based organization /Churches in the area have a positive attitude towards infrastructure development in the area(Mean=2.31).It was widely held that the community around the school has a positive attitude towards infrastructure development in the area(Mean=2.24).There was a significant weak positive relationship between

stakeholder's attitude towards infrastructure development and growth of ECD centres (n=246,C.L.=0.05,r=0.120*, p>0.05).

5.2.2.Policy on infrastructure development and growth of ECD centres

The best proportion of the respondents rated the collaboration of the parents, government, NGOs in supporting the ECD sector to support learning at an average extent (Mean=2.94). It was popular among the respondents to rate to an average extent the development of the infrastructure by the government to support the ECD education as stipulated in the Kenyan constitution(Mean=3.39).A greater proportion of the respondents said that the barriers to ECD education according to the basic education act had been eliminated to average extent(Mean=3.07).Majority of the respondents said that ECD centres have been established in the 47 Counties according to the medium term plan to an average extent(Mean=3.40).It was popular among the respondents to say that DICECE support their schools which is established by the National Education Support Plan has been to an average extent(Mean=3.00).Majority of the respondents noted that the school policy on teaching and learning has supported infrastructure development to a average extent(Mean=2.55).There was an insignificant and very weak positive relationship between policy on infrastructure development and growth of ECD centres (n=246,C.L.=95%,r=0.067, p>0.05).

5.2.3 Financial allocation on infrastructure development and growth of ECD centres in Bondosub-county.

Majority of the respondents rated the financial allocation for infrastructure development by the Ministry of Education, the Siaya County Government and the School management

as inadequate (Mean=4.01, 3.53 and 4.00) respectively. The amount of funds the school received from sponsors to support infrastructure development was also deemed inadequate by most of the respondents (Mean=3.92).Majority of the respondents rated the amount of money paid by parents as school fees as average/neither adequate nor inadequate (Mean=3.76).There was an insignificant weak negative relationship between resource allocation on infrastructure development and growth of ECD centres (n=246, C.L. =95%, r= -0.031,p>0.05).

5.2.4 Management of infrastructure development and growth of ECD centres in Bondo sub-county.

Majority of the respondents at 220(90.16%) mentioned that they had a management body while. 213(87.30%). respondents said that they have a management body that oversees infrastructure development of the ECD centre .Most of the respondents rated the oversight role of the management in infrastructure development as average at 88(36.07%). Two thirds of the respondents said that the school management met once a term to discuss infrastructure development in the school at 164(67.21%). The study revealed that there is an insignificant weak positive relationship between school management role on infrastructure development and growth of ECD centres (n=246,C.L.=95%,r= 0.040,p>0.05).

5.3 Conclusions

The researcher drew the following conclusions from the study:

With regard first objective, to examine the extent to which stakeholder's attitude towards infrastructure development influence the growth of ECD centres in Bondo sub-county, the researcher deduces that the education stakeholders: County government, parents NGOs and CBOs, faith based organization /Churches and community around the school had a positive attitude towards infrastructure development in the area. It is also deduced that positive attitude among stakeholders on infrastructure development would positively affect the growth of ECD centres in Bondo sub-County.

With respect to the second objective, to examine how policy on infrastructure development influences growth of ECD centres in Bondo sub-county, the researcher infers that the policies on infrastructure are in place and are supportive of the ECD growth in Bondo sub-county. Nonetheless there is still a gap in the implementation of those policies for the realization of optimal growth of ECD centres in the Sub-county. The researcher also infers that an improvement in policy making and its implementation would positively affect the growth of ECD centres in Bondo sub-county.

On establishing the level at which financial allocation on infrastructure development influences growth of ECD centres in Bondo sub-county the researcher concludes that financial allocations for infrastructural development by the financiers have been inadequate and the few funds getting to the schools have been seemingly mismanaged. This has been a hindrance to the growth of ECD centres in Bondo sub-county.

With reference to the fourth objective; to assess how management of infrastructure development influences growth of ECD centres in Bondo sub-county, he researcher supposes that majority of the centres had management bodies which were largely effective in overseeing infrastructural development of ECD centres in Bondo sub-county, their role has however been restrained by inadequate finances. The researcher also supposes that enhancing management practices on infrastructure development would lead to an improvement in the growth of ECD centres in Bond sub-county.

5.4 Recommendations

The following recommendations were drawn given the findings and conclusion of the study:

i. The county governments should bring together education stakeholders and have their positive attitudes consolidated and actualized in practice by putting in place measures to enhance infrastructural growth of Early Childhood Centres in Bond sub-county.
ii. The Ministry of Education and the county governments to embark on sensitizing stakeholders on the policy guidelines on ECD and encourage their active participation in policy implementation for better growth outcomes of ECD centres in Bond sub-county.
iii. It is necessary that parents and relevant stakeholders to advocate for increased financial allocations for infrastructural development of ECD centres in Bond sub-county since the current allocation is inadequate. Meanwhile the government and schools need to put controls in place to ensure prudent and effective use of finances

allocated for infrastructural development of ECD centres including putting transparency and accountability mechanisms in place.

iv. The national and county governments in partnership with development partners should build the capacity of the school boards of management on effective management practices and resource mobilization strategies for ECD infrastructural development.

5.5 Contribution to Knowledge Base

Objective	Contribution to knowledge base
To examine the extent to which stakeholder's attitude towards infrastructure development influence the growth of ECD centres in Bondo sub-county	The study reveals that there was a weak significant positive relationship between stakeholder's attitude towards Infrastructure development and Growth of Early Childhood Development Centres (n=246,C.L.=95%,r=120*, p>0.05).
To examine how policy on infrastructure development influences growth of ECD centres in Bondo sub-county	It was established that there was an insignificant and very weak positive relationship between policy on infrastructure development and growth of ECD centres (n=246,C.L.=95%,r=0.067, p>0.05).
To establish the level at which financial allocation on infrastructure development influences growth of ECD centres in Bondo sub-county.	The study revealed that the there was an insignificant weak negative relationship between resource allocation on infrastructure development and growth of ECD centres (n=246,C.L.=95%,r= 0.031,p>0.05).
To assess how management of infrastructure development influences growth of ECD centres in Bondo sub-county.	The study revealed that there is an insignificant weak positive relationship between school management role on infrastructure development and growth of ECD centres (n=246,C.L.=0.05,r= 0.040,p>0.05).

5.6 Areas for Further Research

The study established that the county government is increasingly playing a significant role in the growth of ECD centres in Bondo sub-county in terms of stakeholder participation, policies, financial allocation and ECD management. It is therefore important to investigate the influence of devolution of ECD management on the growth of Early Childhood Education in Bondo sub-county.

REFERENCES

Anderson, L.M. (2003). The Effectiveness of Early Childhood Development Programs.*American Journal of Preventive Medicine*

Asiedu-Akrofi, K. (1978).*School Organisation in modern Africa.*Tema: Ghana Publishing Corporation.

Ayeni, A. &Adelabu, M. (2011). *Improving learning infrastructure and environment for sustainable quality assurance practice in secondaryschools in Ondo state South West Nigeria*. *Internal Journal of research studies in education, 3*(5) 61-60.

Borg, W. R. & Gall, M. D. (1989).*Educational Research*. White Plains, New York: Longman. Budgets 2006. Cape Town: The Education Project, Idasa.

Busher, C.H. and Harter, S.P (1980).*Research Methods in Librianship: Techniques and Interpretations.* Orlando, FL: Academic Press Inc

Department of Education. (2001). *The Nationwide Audit of ECD Provisioning in South Africa*. Department of Education, Pretoria, South Africa.

Elcher, J.C.(1989). Education costing and Financing in Developing Countries. Focus on Sub-Saharan Africa .Staff working paper No.655 Washington D.C.:The World Bank.

Evans, R. (1973). *Jean Piaget: The Man and His Ideas.*New York: E. P. Dutton & Co. Inc.

Government of Kenya (2008), *Vision 2030*, Government printer, Nairobi Kenya

Gustafsson, M. (2010). Policy note on pre-primary schooling: An empirical contribution to the 2009 Medium Term Strategic Framework. Working Paper 05/2010. StellenboschUniversity, Department of Economics.

Institute of Open Learning

Kagan, S.L. (1994). *Essential functions of the early care and education system: Rationale and definition*. New Haven, CT: Quality 2000 Initiative

Kalungu, Agnes S (2015).Influence of board of managements' financial management on public secondary schools in Westlands district, Nairobi County, Kenya.Unpublished project report, Univesity of Nairobi.

Kerlinger, F. N. (1973).*Foundation of behavioral science.*New York: Holt, Renehard and Winston.

Kipkorir, L.I., and Njenga, A.W. (1993). *A Case Study of early Childhood Care and Education in Kenya.* Paper prepared for the EFA Forum 1993, New Delhi, 9-10 Retrieved from http://www.ecdgroup.com/download/

Knott, T. (2007). Teaching Science to Young Children: Practical Advice.

Maureen, L.(2009) *Governance in education: Raising performance*. Retrievedon 21st November 2015 from http://siteresource.worldbank.org

Micheni, L.D. (2007). A study of the role of religious school sponsors in management of public secondary schools in South Imenti District.Unpublished project report, Univesity of Nairobi.

Ministry of Education (MoE) (2005).Kenya Education Sector Support Programme. School Infrastructure Information Management Unit Hand book . Nairobi: Government Press.

Morgan, G. (1993). *Making a career of it: The state of the states report on career development in early care and education*. Boston, MA: The Centre for Career Development in Early Care and Education at WheelockCollege

Moyo, J. Wadesango, N. and Kurebwa, M. (2012). *Factors that Affect the Implementation of Early Childhood Development Programmes in Zimbabwe. Zimbabwe Open University, MidlandsRegion, Zimbabwe*.WalterSisuluUniversity, East London, RSA

Mugenda, O. M. and Mugenda, A. G. (1999). *Research Methods: Quantitative and Qualitative Approaches.*Nairobi: Acts Press.

Namunyu, R.W. (2012). *Community participation in Education programmes*:The role of school management commitee in school improvement inBusia district, Kenya.Unpublished project report, University of Nairobi

Namuyu, R.W. (2007).Community participation in education programmes: the role of school management committees in school improvement in Busia District, Kenya. Unpublished project report, University of Nairobi.

Nyachae, C. (2014), *Assessment of the Implementation of the System of Devolved Government: From Steps to Strides*, Government Printer, GOK Nairobi.

Ogula, P. A. (1998). *A hand book of Educational research*. Nairobi: New Kermit.

Ogula, P. A. (2005). *Research Methods.* Nairobi: CUEA Publications.

Ojwang J.M (2015). Factors influencing infrastructure development in public primary schools in Kathonzweni Division, Makueni County, Kenya.Unpublished project report, Univesity of Nairobi.

Orodho, A. J. & Kombo, D. K. (2002). *Research Methods*. Nairobi: KenyattaUniversity,

Orodho, A. J. (2003). *Essentials of Educational and Social Sciences Research Method*. Nairobi: Masola Publishers.

Republic of Kenya (1996).*Early Childhood Development Project Letter of Sectoral Policy*. Retrieved from Http://Siteresources.Worldbank.Org/Intecd/Resources/Policykenyalettersubsector.Doc

Republic of Kenya, Constitution of Kenya, 2010

Riechi, A.R., Mbiti, B.M., and Kisilu, B (2006). *Policy Gaps and Suggested Strategies of Enhancing Access to Early Childhood Development and Education in Kenya*. Nairobi: IPR

Roy, D.D. (2008). Attitude towards School Infrastructure of Students In Primary Schools. Retrieved from http://schoolinfrastructure.blogspot.com/

Statistics South Africa. (2010). General Household Survey 2009. Pretoria: StatsSA.

UNESCO (2000).*Framework for Action on Values of Education in Early Childhood*. ECF Values, Early Education and Family Education Unit, UNESCO.

UNESCO (2005).*Policy Review Report: Early Childhood Care and Education in Kenya. Early Childhood and Family Policy. Series N0. 11, 2005*. Available Online: http://unesdoc.unesco.org/images/0013/001390/139026e.pdf

Van de Linde, T. (2005). *Influencing and developing good policy in Early Childhood Development (ECD) amongst pastoralist communities in East Africa: The case of Samburu in Kenya*.

Wildeman, R. (2006). Occasional Paper - A review of National and Provincial Education. Budgets 2006. Cape Town: The Education Project, Idasa.

APPENDIX

APPENDIX I: Questionnaire for ECD TEACHERS

INFRASTRUCTURE DEVELOPMENT FACTORS AND THERE INFLUENCE ON EARLY CHILDHOOD EDUCATION GROWTH IN BONDO SUB-COUNTY, KENYA.

Dear respondents I am a student of Nairobi University. As part of my Academic requirements to the award of a Masters Degree in Project Management. I am administering this questionnaire to collect information on the influence of infrastructure development on early childhood education in Bondosub-county.

SECTION A: RESPONDENT BACKGROUND (Just tick)

1.1 Gender: Male ☐ Female ☐

1.2 Age: 20-29 ☐

30-39 ☐

40-49 ☐

50-59 ☐

60-above ☐

1.3 Highest Educational Level

O-Level ☐ A-Level ☐ Diploma ☐ Bachelors Degree ☐

Masters Degree ☐ Other Professional Qualification …….

SECTION B:

Growth of ECD centre

1. How would you rate the change in the number of pupils in the school over the last 2 years?

Increasing [ ] Constant [ ] Decreasing [ ]

2. How would you rate the change the number of teachers over the last 2 years?

Increasing [ ] Constant [ ] Decreasing [ ]

3. How would you rate the change in the number of ECD centres in this area in the past 2 years?

Increasing [ ] Constant [ ] Decreasing [ ]

The extent to which stakeholder's attitude towards infrastructure development influence the growth of Early Childhood Education centres in Bondosub-county .

4. The office of the president has a positive attitude towards infrastructure development in this area?

Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ]

Stongly disagree [ ]

5. The county government has a positive attitude towards infrastructure development in this area?

Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ]

Stongly disagree [ ]

6. The ministry of education has a positive attitude towards infrastructure development in this area?

Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ]

Stongly disagree [ ]

7. The parents in this school have a positive attitude towards infrastructure development in the school?

Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ]

Stongly disagree [ ]

8. The NGOs/CBOs around this school have a positive attitude towards infrastructure development in the area?

Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ]

Stongly disagree [ ]

9. The Faith based organization / Churches in this area have a positive attitude towards infrastructure development in the area?

Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ]

Stongly disagree [ ]

10. The community around the school has a positive attitude towards infrastructure development in this area?

Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ]

Stongly disagree [ ]

How policy on infrastructure development influences growth of early childhood education centre's in Bondosub-county.

11. The ECD policy 2006 calls for a collaboration of parents, government, NGOs, etc in supporting the ECD sector to support learning, to what extent do you observe these stakeholders collaborating?

Very high extent [ ] high extent [ ] average extent [ ]

Low extent [ ] very low extent [ ]

12. The constitution of Kenya calls for free and compulsory, to what extent has the government developed infrastructure to support the ECD education?

Very high extent [ ] high extent [ ] average extent [ ]

Low extent [ ] very low extent [ ]

13. The basic education act calls for coordination of all relevant agencies to ensure that all the barriers to the right to quality basic education are removed, to what extent are barriers to ECD education removed in this area?

Very high extent [ ] high extent [ ] average extent [ ]

Low extent [ ] very low extent [ ]

14. The second medium term Plan calls for the establishment of ECDE resource centres in each of the 47 counties, to what extent are ECDE resource centres established in this area?

Very high extent [ ] high extent [ ] average extent [ ]

Low extent [ ] very low extent [ ]

15. The National Education Support Plan NESP establishes the DICECE for purposes of in-servicing teachers, to what extent is the DISECE support this school?

Very high extent [ ] high extent [ ] average extent [ ]

Low extent [ ] very low extent [ ]

16. To what extent do your school policy on teaching and learning support infrastructure development?

Very high extent	[ ]	high extent	[ ]	average extent	[ ]
Low extent	[ ]	very low extent	[ ]		

The level at which financial allocation on infrastructure development influences growth of early childhood education in Bondosub-county.

17. How would you rate the Ministry of education allocation of funds for infrastructure development?

Very adequate	[ ]	Adequate	[ ]	Average	[ ]
Inadequate	[ ]	very inadequate	[ ]		

18. How would you rate the county government allocation of funds for infrastructure development?

Very adequate	[ ]	Adequate	[ ]	Average	[ ]
Inadequate	[ ]	very inadequate	[ ]		

19. How would you rate the amount of funds the school management sets aside for infrastructure development?

Very adequate	[ ]	Adequate	[ ]	Average	[ ]
Inadequate	[ ]	very inadequate	[ ]		

20. How would you rate the amount of funds the school receives from sponsors to support infrastructure development?

Very adequate	[ ]	Adequate	[ ]	Average	[ ]
Inadequate	[ ]	very inadequate	[ ]		

21. How would you rate the amount of money paid by parents as school fees?

Very adequate [ ] Adequate [ ] Average [ ]

Inadequate [ ] very inadequate [ ]

How management of infrastructure development influences growth of early childhood education centre's in Bondosub-county.

22. Do you have a management body in your school?

Yes [ ] No [ ]

If yes, who are the members of the management body in your school?

……

……

……

If you have a management body, does it oversee infrastructure development in the school?

Yes [ ] No [ ]

If the management oversees infrastructure development, how would you rate the effectiveness with which they oversee infrastructure development of the school?

Very effective [ ] Effective2 [ ] Average [ ]

Ineffective [ ] Very ineffective [ ]

How often does the school management meet to discuss infrastructure development in the school?

Once a year [ ] Once a term [ ] Once a month [ ] Every week [ ]

Never [ ]

What are the two main challenges affecting infrastructure development in the school?

……

……

APPENDIX II: Questionnaire For SMC and SCHOOL HEADS

INFRASTRUCTURE DEVELOPMENT FACTORS AND THERE INFLUENCE ON EARLY CHILDHOOD EDUCATION GROWTH IN BONDO SUB-COUNTY, KENYA.

Dear respondents I am a student of Nairobi University. As part of my Academic requirements to the award of a Masters Degree in Project Management. I am administering this questionnaire to collect information on the influence of infrastructure development on early childhood education in BondoCounty.

INSTRUCTIONS:

1 Do not sign your name anywhere on this questionnaire.

2 For Section A, B and C, Just tick and fill in for other sections.

SECTION A: RESPONDENT BACKGROUND (Just tick)

1.1 Gender: Male ☐ Female ☐

1.2 Age: 20-29 ☐

30-39 ☐

40-49 ☐

50-59 ☐

60-above ☐

1.3 Highest Educational Level

O-Level ☐ A-Level ☐ Diploma ☐ Bachelors Degree ☐

Masters Degree ☐ Other Professional Qualification …….

SECTION B:Growth of ECD centre

1. How would you rate the change in the number of pupils in the school over the last 2 years?

Increasing [ ] Constant [ ] Decreasing [ ]

Please explain

……
……

2. How would you rate the change the number of teachers over the last 2 years?

Increasing [ ] Constant [ ] Decreasing [ ]

Please explain

……
……

3. How would you rate the change in the number of ECD centres in this area in the past 2 years?

Increasing [ ] Constant [ ] Decreasing [ ]

Please explain

……
……

SECTION C:**Stakeholder's attitude towards infrastructure development and growth of Early Childhood Education**

1. The office of the president has a positive attitude towards infrastructure development in this area?

Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ]

Stongly disagree [ ]

2. The county government has a positive attitude towards infrastructure development in this area?

Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ]

Stongly disagree [ ]

3. The ministry of education has a positive attitude towards infrastructure development in this area?

Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ]

Strongly disagree [ ]

4. The parents in this school have a positive attitude towards infrastructure development in the school?

Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ]

Strongly disagree [ ]

5. The NGOs/CBOs around this school have a positive attitude towards infrastructure development in the area?

Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ]

Strongly disagree [ ]

6. The Faith based organization / Churches in this area have a positive attitude towards infrastructure development in the area?

Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ]

Strongly disagree [ ]

7. The community around the school has a positive attitude towards infrastructure development in this area?

Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ]

Stongly disagree [ ]

SECTION D:**Policy on infrastructure development and growth of early childhood education centres**

The ECD policy 2006 calls for a collaboration of parents, government, NGOs, etc in supporting the ECD sector to support learning, to what extent do you observe these stakeholders collaborating?

Very high extent [ ] high extent [ ] average extent [ ]

Low extent [ ] very low extent [ ]

1. The constitution of Kenya calls for free and compulsory, to what extent has the government developed infrastructure to support the ECD education?

Very high extent [ ] high extent [ ] average extent [ ]

Low extent [ ] very low extent [ ]

2. The basic education act calls for coordination of all relevant agencies to ensure that all the barriers to the right to quality basic education are removed, to what extent are barriers to ECD education removed in this area?

Very high extent [ ] high extent [ ] average extent [ ]

Low extent [ ] very low extent [ ]

3. The second medium term Plan calls for the establishment of ECDE resource centres in each of the 47 counties, to what extent are ECDE resource centres established in this area?

Very high extent [ ] high extent [ ] average extent [ ]

Low extent [ ] very low extent [ ]

4. The National Education Support Plan NESP establishes the DICECE for purposes of in-servicing teachers, to what extent is the DISECE support this school?

Very high extent [ ] high extent [ ] average extent [ ]

Low extent [ ] very low extent [ ]

5. To what extent do your school policy on teaching and learning support infrastructure development?

Very high extent [ ] high extent [ ] average extent [ ]

Low extent [ ] very low extent [ ]

SECTION E:**Financial allocation on infrastructure development and growth of early childhood education**

1. How would you rate the Ministry of education allocation of funds for infrastructure development?

Very adequate [ ] Adequate [ ] Average [ ]

Inadequate [ ] very inadequate [ ]

2. How would you rate the county government allocation of funds for infrastructure development?

Very adequate [ ] Adequate [ ] Average [ ]

Inadequate [ ] very inadequate [ ]

3. How would you rate the amount of funds the school management sets aside for infrastructure development?

Very adequate [ ] Adequate [ ] Average [ ]

Inadequate [ ] very inadequate [ ]

4. How would you rate the amount of funds the school receives from sponsors to support infrastructure development?

Very adequate [ ] Adequate [ ] Average [ ]

Inadequate [ ] very inadequate [ ]

5. How would you rate the amount of money paid by parents as school fees?

Very adequate [ ] Adequate [ ] Average [ ]

Inadequate [ ] very inadequate [ ]

SECTION F:**Management of infrastructure development and growth of early childhood education centres**

1. Do you have a management body in your school?

   Yes [ ] No [ ]

If yes, who are the members of the management body in your school?

……

……

……

2. If you have a management body, does it oversee infrastructure development in the school?

Yes [ ] No [ ]

3. If the management oversees infrastructure development, how would you rate the effectiveness with which they oversee infrastructure development of the school?

Very effective [ ] Effective2 [ ] Average [ ]

Ineffective [ ] Very ineffective [ ]

4. How often does the school management meet to discuss infrastructure development in the school?

Once a year [ ] Once a term [ ] Once a month [ ] Every week [ ]Never [ ]

5. What are the two main challenges affecting infrastructure development in the school?

……

……

APPENDIX III: INTERVIEW GUIDE

1. To what extent does stakeholder's attitude towards infrastructure development influence the growth of Early Childhood Education centres in Bondo sub-county?

2. Briefly comment on the current government policy on ECD? How policy on infrastructure development does influences growth of early childhood education centres in Bondosub-county?

3. How does financial allocation on infrastructure development influence growth of early childhood education in Bondosub-county?

-Are you aware of how the allocations are made? Is it adequate? If No

-What amendments do you suggest to be made

4. How does management of infrastructure development influences growth of early childhood education centre's in Bondosub-county?

APENDIX IV: LETTER OF TRANSMITTAL

Department of Extra Mural Studies

University of Nairobi

P. o Box 825, Kisumu.

The Sub-county Education Officer,Bondo

P.O. Box 580-40601

Bondo.

Dear Madam,

RE: PERMISSION TO CONDUCT A STUDY ONINFLUENCE OF INFRASTRUCTURE DEVELOPMENT ON EARLY CHILDHOOD EDUCATION GROWTH IN SIAYA COUNTY

I am a student of the University of Nairobi, pursuing a Master of Arts Degree in Project Planning and Management. Currently I am in the process of undertaking research on the **Influence of Infrastructure Development on Early Childhood Education Growth in Bondosub-County.**

The exercise will involve data collection from the sub-county Education officer, DICECE officers ,ECDE teachers and administrators. The purpose of this letter therefore is to request your office for permission to carry out the study in Bondo sub-county.

Yours faithfully,

Linda Kharemwa

APPENDIX V: TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN POPULATION

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380

85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: *"N" is population size*

"S" is sample size.

Krejcie, Robert V., Morgan, Daryle W., *"Determining Sample Size for Research Activities",* Educational and Psychological Measurement, 1970

APPENDIX VI: RESEARCH PERMIT

CONDITIONS

1. The License is valid for the proposed research, research site specified period.
2. Both the Licence and any rights thereunder are non-transferable.
3. Upon request of the Commission, the Licensee shall submit a progress report.
4. The Licensee shall report to the County Director of Education and County Governor in the area of research before commencement of the research.
5. Excavation, filming and collection of specimens are subject to further permissions from relevant Government agencies.
6. This Licence does not give authority to transfer research materials.
7. The Licensee shall submit two (2) hard copies and upload a soft copy of their final report.
8. The Commission reserves the right to modify the conditions of this Licence including its cancellation without prior notice.

REPUBLIC OF KENYA

National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No.A 14584

CONDITIONS: see back page

THIS IS TO CERTIFY THAT:
MS. LINDA NAMUSONGE KHAREMWA
of UNIVERSITY OF NAIROBI, 0-517 UHURU GARDENS-NRB,has been permitted to conduct research in *Siaya County*

on the topic: *INFLUENCE OF INFRASTRUCTURE DEVELOPMENT ON EARLY CHILDHOOD EDUCATION GROWTH IN BONDO SUB-COUNTY, KENYA.*

for the period ending:
20th June,2018

Permit No : NACOSTI/P/17/73601/17255
Date Of Issue : 3rd July,2017
Fee Recieved :Ksh 1000

.....
Applicant's Signature

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