IMPACT OF THE FREE PRIMARY EDUCATION POLICY ON QUALITY OF EDUCATION IN PUBLIC PRIMARY SCHOOLS IN MOMBASA COUNTY, KENYA

BY

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2013
DECLARATION
This research project report is my original work and has not been presented to any University for examination.

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L50/70313/2011

Signature ………………………………………..Date………………………………

This research project report has been submitted for examination with my approval as the University supervisor.

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DEDICATION

This work is dedicated to my loving wife Amina Osman and our children Sumaya, Aisha and Abdinoor for their unwavering support, patience and understanding during my study and project period where my attention for them may have been divided in one way or the other following the rigours of the course. I equally dedicate this project to my late mother Abdia Mohamed who nurtured me to be who I am today.

Finally, I extend the dedication to my nieces Yurop and Leyla as well as my entire extended family for their direct or indirect support during the project and study period.
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<td>African Population and Health Research Centre</td>
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<td>EFA</td>
<td>Education for All</td>
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<td>EMIS</td>
<td>Educational Management Information Systems</td>
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<td>ESIP</td>
<td>Education Sector Investment programme</td>
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<td>FPE</td>
<td>Free Primary education</td>
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<td>GER</td>
<td>Gross Enrolment Ratio</td>
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<td>GMR</td>
<td>Global Monitoring Report</td>
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<td>MoEST</td>
<td>Ministry of Education Science and Technology</td>
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<td>NARC</td>
<td>National Rainbow Coalition</td>
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<td>NER</td>
<td>Net Enrolment Ratio</td>
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<td>OECD</td>
<td>Organization for Economic Cooperation and Development</td>
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<td>PRS</td>
<td>Poverty Reduction Strategy</td>
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<td>PTor</td>
<td>Pupil Toilet Ratio</td>
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<td>SME</td>
<td>School Management Committee</td>
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<td>SPSS</td>
<td>Statistical Package for Social Scientists</td>
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<td>TPR</td>
<td>Teacher Pupil Ratio</td>
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ABSTRACT
The purpose of this study was to evaluate impact of the free primary education policy on quality of education in public primary schools in Mombasa County, Kenya. The study was carried out within Mombasa County, Kenya. The research design employed was descriptive survey design. The target population comprised of 88 public primary schools within Mombasa County, distributed within the four old constituency boundaries of; Mvita, Changamwe, Likoni and Kisauni. There are a total of about 1645 teachers, deputy head teachers and head teachers in those schools. Out of the 88 public primary schools, a sample population of 9 primary schools were picked through stratified random sampling and the entire 203 teachers, deputy head teachers and head teachers in those schools were selected through census sampling technique. The data collection instruments used included; questionnaires, interview schedule, observation schedule and content analysis of documents. The reliability of these instruments was determined using test retest technique, Spearman Rank Correlation Coefficient as well as piloting. Validity of the instrument was determined through seeking expert opinion from the supervisor and other lecturers. Analysis of the data was done using Statistical Package for Social Scientists (SPSS) software and data presented in form of tables among others. The study found out that with the implementation of the FPE policy, access to primary education had increased tremendously. However, with increased enrolment came along some quality challenges. Increased enrolment did not come along with increase in number of teachers and increase in school infrastructure. Meanwhile, though not adequately, the policy has been lauded for increase in provision of teaching and learning materials such as textbooks. Based on these findings, the study recommends the need for the government to allocate additional funding to employ more teachers to reduce pupil teacher ratio, improve on schools infrastructure such as classrooms so as to create conducive learning environment and avail more instructional materials among others.
CHAPTER ONE
INTRODUCTION

1.1 Background of the Study
World over, Education is perhaps the most important of all human rights. It is prerequisite to many rights guaranteed in the Universal Declaration of Human Rights (UDHR), (Article 26 in the UDHR). For both developed and developing countries, Primary education is the first stage of compulsory education offered by the countries system of education. It is preceded or comes after baby class, pre-school, pre unit, or nursery education, and eventually lower and upper primary schools which are later followed by secondary education (Lewin, 1999). In North America, this stage of education is usually known as elementary education and is generally followed by middle school. In the United States of America (USA), Education is very much a part of daily lives with more than one in every four people in the U.S. aged 3 and older enrolled in school in 2000 (American Recovery and Reinvestment Act of 2009).

In the USA, 76.6 million students in various learning institutions in the year 2000 consisted of ; 5.0 million enrolled in nursery school (prekindergarten (preK)), 4.2 million in kindergarten, 33.7 million in elementary school, 16.4 million in high school, 14.4 million in college (undergraduate) and 3.1 million in graduate school (Journal of Embassy of USA in Japan, 2000).

This is as compared to 101.5 million students in various learning institutions in the year 2012 which consisted of; 49.5 million students enrolled in public elementary and secondary schools. Of these students, 34.6 million were enrolled in prekindergarten (preK) or nursery school through grade 8, and 14.9 million were enrolled in grades 9 through 12. An additional 5.3 million students enrolled in private high schools, in fall 2012, a record 21.6 million students enrolled in American Tertiary colleges. Total undergraduate enrolment in degree-granting postsecondary institution, increased to 21.0 million in 2011/2012 while graduate student’s enrolment increased to 4.1 million in fall 2011/2012 (U.S. Department of Education, National Centre for Education Statistics. 2012).

In Brazil, enrolment rates in early childhood and primary education among three-year-olds rose from 21% in 2005 to 32% in 2010 (far below the Organisation for Economic
Co-operation and Development (OECD) average of 66%), while those rates among four-year-olds increased from 37% to 55% during the same period (below the OECD average of 81%). Enrolment rates among five-year-olds have also increased substantially, from 63% in 2005 to 78% in 2010–much closer to the OECD average of 88%. Some 92% of six-year-olds in Brazil attended early childhood or primary education in 2012. This is a clear improvement over 2005, when only 83% of six-year-olds attended that level of education, but still falls short of universal primary education for six-year-olds found across OECD countries, (Katarzyna Kubacka, 2012)

In Africa, over the past decade several countries in sub-Saharan Africa have abolished primary school tuition fees as part of renewed attempts to revive their education systems which have been in decline, and even suffered reduced enrolments after the initial growth following independence. Whereas in the eighties and early to mid-nineties, cost-sharing had been a policy promoted by international financial institutions such as the World Bank, the direct and indirect costs to parents of their children’s education became obstacles to their attendance and continued enrolment. The inability of parents to afford such costs fell on girls disproportionately, typically being the first to be pulled out or allowed to drop out of school (Sifuna, 2005).

In Malawi, Free primary education was introduced in October 1994 following announcement in June by the newly elected Government brought into power through the first multi-party elections since Independence (Ligomeka, 2002). In the first year of Free Primary Education (FPE), enrolments increased by over 50% from 1.9m in 1993/4 to about 3.2m in 1994/5. Net enrolments prior to FPE had been 58% for girls, increasing to 73% by 1996; and 58% also for boys, but only increasing to 68% by 1996. Gross enrolments increased from 67.9% in 1990/1 to 158.1% in 1999/2000. Male and female gross enrolment rates were comparable in 1999/2000: at 157.9 and 158.3%, respectively (UNESCO, EFA Global Monitoring Unit, 2002).

Zambia also started offering free primary education in the year 2002. The Government declared that education would be free for all pupils’ from grades 1 – 7. Before introduction of free primary education in Zambia, Net enrolment rates fell through the late1990s, from 70.4% in 1996 to 65.1% in 2001. Even with the inclusion of children in community schools, geared toward the most vulnerable, such as AIDS orphans, the net enrolment rate was 68.5% in 2001. For children in the intake year,
aged 7, in 2001 it is estimated that 55.6% were not enrolled in schools. During the same period, gross enrolment rates also fell, from 85.0% in 1996 to 76.9% in 2001 (World Bank, 2003). In the first year of FPE, 2002, primary enrolments grew by 7% compared with only 2% in the prior year, and gross enrolment increased to 81%, whereas in prior years it had ranged between 78 and 79%. The net intake rate declined in this first year of FPE, and the net enrolment rate increased by 1%, indicating that the enrolment gains were likely to be of children outside the official school-going ages. The Zambian government through Zambia Ministry of education indicated that enrolment in both primary and secondary schools in year 2012 stands at 7.8 million children compared to 7.6 million in year 2011. Secondary schools have 1.9 million students while primary schools have 5.9 million pupils (Zambia Government Ministry of Education, 2012).

Tanzania introduced Free primary education in 2001, largely as part of the Poverty Reduction Strategy (PRS) process, having been incorporated into the Education Sector Development Programme, which has provided the framework for partnerships with the international development community since its appraisal in early 1999 (World Bank, 2001). A gross enrolment ratio of 98% in 1980 had declined by the early 1990s to below 70%, and in 1999/00, the year before FPE was introduced, the gross enrolment rate was even lower, 63%, the net enrolment rate reaching only 46.7%. There were severe shortages of classrooms, desks, instructional materials and teachers’ housing, as well as insufficient numbers of teachers to cater for the school-aged population (Sumra, Suleman, HakiElimu, 2002).

In Uganda Universal Primary Education (UPE) was introduced in January 1997. Education was seen as an important foundation of the Poverty Eradication Action Plan of which the Education Sector Investment Programme (ESIP) was a key building block. Gross enrolment in 1995 was 74.3%. Primary enrolment in 1996 was 2.7 million. By 2000/1, gross enrolment had reached 135.8%, indicative of the considerable number of over and under-age pupils enrolled. By 2002, this had risen to 7.2 million pupils (Government of the Republic of Uganda, Ministry of Education and Science report, 2003).

Kenya began a campaign for free primary education after independence in 1963. In the 1963 elections, when the Kenya African National Union (KANU) became the
ruling party their manifesto committed the party to offering a minimum of seven years of free primary education. In the 1969 election manifesto the party again re-echoed its commitment to providing seven years of free primary education. In 1971, a presidential decree abolished tuition fees for the districts with unfavourable geographical conditions since these were said to make the populations in these areas poor. A second presidential decree on 12 December 1973 during the celebration of the “Ten Great Years of Independence” claimed to have brought the country close to achieving “universal free primary education.” The directive provided free education for children in standards I-IV in all districts of the country. It went further and provided a uniform fee structure for those in standards V-VII in the whole country. The fee charged was Kshs. 60/- per child per annum. Subsequent directives went further and abolished school fees in primary education. The total enrolment figure for standards one to six increased from 1.8 million in 1973 to nearly 2.8 million in January 1974/5 (Ministry of Education, 2003).

However due to increased number of student and lack of facilities to manage such big number, the management of school started charging building levy, which was even higher than the school fee. Many of the children who had enrolled dropped out, following the introduction of the building levy. The high dropout rates were a response, not only to the very high levies, but also to the quality of education that was being offered following the government intervention. The poor quality was in terms of congestion in classrooms and untrained teachers (Ministry of Education, 2003). In 1973, the teaching force stood at 56,000, out of whom 12,600 were professionally unqualified. In 1974, an additional 25,000 teachers were needed for the new classes. By 1975, the number of unqualified teachers stood at 40,000, out of a teaching force of 90,000 teachers. With such a teaching environment, high dropout rates in primary education became inevitable. Overall, the effect of government intervention in primary education and the implications arising out of it made primary education much more expensive than before (Ojiambo, 2009)

Following failure of previous attempts to introduce free primary education a renewed effort was established in the year 2003 by a newly elected government of National Rainbow Coalition (NARC) which used FPE as one of the campaign platform to win the election. This entailed the abolition of tuition fees, which contributed to increased costs of education to parents and accounted largely for the decreasing primary and
secondary school enrolments in the 1990s. Following this announcement, enrolments increased from about 5.9 million in 2002 to about 7.2 million pupils by 2004, resulting in a gross enrolment rate of 104% compared with 87.6% in 2002 (MOE, Education Statistical Booklet 2003-2007). The national primary Gross enrolment rate (GER) was 114.7% in 2007 (116.9% for boys and 112.4% for girls). The improvement in enrolment is attributed to introduction of free primary education policy in 2003. The national primary school Net Enrolment Rate (NER) was 92% in 2007. Coast province, which Mombasa County is part, had 81% NER which was below the national average (MOE, School Mapping Data - 2011).

The national Gross Enrolment Ratio (GER) at primary level rose from 88.2% in 2002 to 110.0% in 2009. The GER for girls increased from 87.5% to 107.2% while that of boys increased from 88.9% to 112.8% over the same period. A GER of over 100% shows that children outside the national primary school age are enrolled in primary school, mainly as overage children for the primary education cycle. The Net Enrolment Ratio (NER) has also been on an increasing trend between 2002 and 2009 as shown in Table 1.2 below. The NER increased from 77.3% in 2002 to 92.9% in 2009, which means that 7% of eligible age children were not accessing primary education in 2009. There are wide regional disparities, e.g. the 2009 NER for North Eastern Province was 35.5% as compared to 92.9% nationally. This means that North Eastern province is unlikely to meet the MDG target of 100% access in primary education by 2015 (MOE, Education Statistical Booklet 2003-2007-EMIS 2009).

Total primary school enrolment is expected to grow at a stable rate during the period from 2010 to 2015 following the stabilization of the impact of FPE which began in 2003. Enrolment in public primary schools is set to increase from about 8 million pupils in 2009 to 9.2 million in 2012 and 10.5 million by 2015. Total primary school enrolment (public and private) increased from 9 million pupils in 2009 to 10 million in 2012 and is expected to increase to 11.5 million by 2015 (MoE, Policy Framework for Education Paper 2012).

The projected number of public primary school teachers as required using a PTR of 40:1 was expected to increase to 221,296 in 2011. According to the Teachers Service Commission (TSC) secretary general, teachers’ shortage at primary education is
estimated at 80,000 (the Standard newspaper, April 7\textsuperscript{th} 2013). Private primary schools enrolment is expected to increase from 793,683 pupils in 2007 to 967,722 pupils by 2015. Assuming a class size norm of 50:1, the required number of public primary school classrooms in 2015 is projected at 229,248, up from 193,000 in 2007. Automatic progression/transition of pupils from one grade to the next and from primary school level to secondary education is proposed (MoE, Policy Framework for Education Paper 2012).

Mombasa County is one of the 47 counties in Kenya located at the Kenyan coast. Recent changes to the learning system have made primary education free but myriads of challenges have hampered achievement of quality education.

Quality education is the sixth goal of Education for all (EFA), and after a period of focus on access and implementation of free primary education in Kenya, there is increasing attention being paid to quality of free education on offer. There are several ways of assessing quality, some based on empirical evidence, others on intuitive judgment and perceptions. What is clear according to research is that how well pupils are taught and how much they learn have an impact on the kind of interest they will have in schooling (Fehrler, Michaelowa & Wechtler, 2007).

Achievement is an indicator of educational quality, however, achievement results can be interpreted meaningfully only in the context of the system that produced them. To comprehensively understand and evaluate the quality of education, it is important to examine all the aspects of school quality and the ways in which environmental factors both inside and outside the school community may affect quality indicators.

\textbf{1.2 Statement of the Problem}

Introduction of the free primary education policy in Kenya in the year 2003 followed a political promise made by the National Rainbow Coalition (NARC) during its campaign trails of 2002 and it was not an idea well thought through. Despite the initial applause received by the initiative following increase in access to free primary education, myriads of challenges have also been reported making it difficult to sustain the desired quality educational benchmarks.

There is clearly a lot of similarity across different countries’ on the effects of introducing free primary education. What is indisputable is that abolishing tuition fees
overcomes some of the obstacles to attending school, as can be attested by the gross and net enrolment rate increases shown in various studies. According to data from Policy Framework for Education Paper of April 2012, the National Gross Enrolment Ratio (GER) at primary level increased from 91.2 % in 1999 to 109.8 % in 2010. The Net Enrolment Rate (NER) increased from 68.8 % in 1999 to 91.6 % in 2007 to 92.5% in 2008 and further to 92.9% in 2009.

This consistent increase in enrolment of pupils without increase in number of teachers, instructional materials as well as school infrastructure has paused a challenge to quality of education by undermining some quality benchmarks such as; ideal pupil teacher ratio, pupil classroom ratio, pupil textbook ratio and pupil toilet ratio among others.

These emerging challenges have called for the need to take stock of the successes and failures of the FPE programme. Meanwhile, there isn’t any previous study known to the researcher carried out on impact of FPE policy on quality of education in public primary schools in Mombasa County. An important question to address is whether this increased quantitative access has been realized without decrease in quality. This study therefore will act as an important initial step towards finding an answer to this critical question.

1.3 Purpose of the Study

The purpose of the study was to evaluate the impact of free primary education policy on quality of education in public primary schools in Mombasa County Kenya.

1.4 Objectives of the Study

The study was guided by the following objectives:

1. To examine how implementation of free primary education policy has impacted on pupil enrolment and influenced quality of education in public primary schools in Mombasa County.

2. To find out how implementation of free primary education policy has impacted on teacher pupil ratio and influenced quality of education in public primary schools in Mombasa County.
3. To establish how implementation of free primary education policy has impacted on provision of instructional materials and quality of education in public primary schools in Mombasa County.

4. To assess how implementation of free primary education policy has impacted on adequacy of school facilities and quality of education in public primary schools in Mombasa County.

1.5 Research Questions and Research Hypothesis
The study was guided by both research questions and research hypothesis as shown below.

1.5.1 Research Questions
The study was guided by the following research questions:

1. How has implementation of free primary education policy impacted on pupil enrolment and quality of education in public primary schools in Mombasa County?

2. How has implementation of free primary education policy impacted on teacher pupil ratio and quality of education in public primary schools in Mombasa County?

3. How has implementation of the free primary education policy impacted on provision of instructional materials and quality of education in public primary schools in Mombasa County?

4. How has implementation of the free primary education policy impacted on adequacy of school physical facilities and quality of education in public primary schools in Mombasa County?

1.5.2 Research Hypothesis
The study was guided by the following research hypothesis:

\[ H_0 \] There is no relationship between implementation of free primary education policy and pupil enrolment and quality of education in public primary schools in Mombasa County Kenya
H1. There is relationship between implementation of free primary education policy and pupil enrolment and quality of education in public primary schools in Mombasa County, Kenya.

H0. There is no relationship between implementation of free primary education policy and Low teacher pupil ratio and quality of education in public primary schools in Mombasa County Kenya.

H1. There is relationship between implementation of free primary education policy and Low teacher pupil ratio and quality of education in public primary schools in Mombasa County Kenya.

H0. There is no relationship between implementation of free primary education policy and provision of instructional materials and quality of education in public primary schools in Mombasa County Kenya.

H1. There is relationship between implementation of free primary education policy and provision of instructional materials and quality of education in public primary schools in Mombasa County Kenya.

H0. There is no relationship between implementation of free primary education policy and adequacy of school physical facilities and quality of education in public primary schools in Mombasa County Kenya.

H1. There is relationship between implementation of free primary education policy and adequacy of school physical facilities and quality of education in public primary schools in Mombasa County Kenya.

1.6 Significance of the Study
The study highlights on various challenges that arose from the implementation of the free primary education policy in public primary schools in Mombasa County, Kenya. It looks at various aspects of educational quality and how it has been impacted on by implementation of the FPE policy.

It offers suggestions and recommendations that will seek to solve educational quality crisis resulting from the implementation of the free primary education policy in public primary schools in Mombasa County as well as other public primary schools across the country. It directly or indirectly offers valuable information to various education sector stakeholders such as Ministry of Education Science and Technology, Kenya National Examinations Council, Teachers Service Commission, Kenya National
Union of Teachers, Kenya Primary Schools Heads Association, United Nations Children's Fund among others.

This study offers reference material for future researchers in the field of education quality and also gives suggestions on possible areas for future research.

1.7 Basic Assumptions of the Study
The study was carried out under the following assumptions.
1. It was assumed that there are factors that affect the standard of quality education in public primary schools in Mombasa County Kenya.
2. That the sample identified will be a representative of the whole population under study.
3. That all the respondents will give honest and truthful responses during their interaction with the researcher and or the research instruments.

1.8 Delimitations of Study
The scope of the study was limited to the public primary schools in Mombasa County. The County has got 88 public primary schools. The County is made up of six Constituencies; Changamwe, Kisauni, Likoni, Jomvu, Nyali and Mvita. However, Nyali and Jomvu are new constituencies curved out of Kisauni and Changamwe constituencies respectively and have not been factored in educational map, therefore; this study used the old constituency boundaries which also factors the two new ones under its ambit. The old constituencies have got varying number of public primary schools. Changamwe constituency has 19 public primary schools, Kisauni constituency has 24 public primary schools, Likoni constituency has 17 public primary schools and Mvita constituency has got 28 public primary schools.

The study discusses four variables that impact on quality of education following the implementation of the FPE policy. The variables include; Enrolment, Pupil Teacher Ratio, Instructional materials and Schools infrastructure.

1.9 Limitations of Study
The study encountered some challenges during its undertaking. Mombasa County is substantially vast, covering both mainland and the island of Mombasa. It was challenging for the researcher to traverse the entire county. Owing to that the
researcher opted to work with minimum acceptable sample of 10%. Of the 88 Public primary schools in Mombasa County the researcher sampled only 9. The number may not be sufficient to generalize the findings to the entire county. However, the researcher tried to ensure balanced and equitable representation of the population by employing varied sampling techniques.

Some of the respondents were uncooperative and never returned the questionnaires, pegging the return rate to 83%, further compromising the generalizability of the study results. The reduced return rate may have been contributed to by suspicion on the part of the respondents. The researcher tried to allay those fears by attaching letter of transmittal to every questionnaire explaining that the research was intended for purely academic purpose.

Some of the schools under study never kept records for past years making reference to old data such as school roll impossible.

1.10 Definitions of Significant Terms

**Teacher Pupil Ratio:** This is the average number of pupils (students) per teacher at a specific level of education in a given school/learning institution per year.

**Pupil Enrolment:** Refers to number of pupils or student in a learning institution in a given grade or level of education, regardless of age. Typically such data is collected at the beginning of a school-year.

**Instructional Materials:** These are class requirement, such as teaching aids, audio visual materials, chalks, textbooks and exercise books among others used by teachers to deliver subject content to learners.

**School Infrastructure:** Basic physical and organizational structures needed for the operation of an educational institution such as classrooms, desks, chairs, laboratories, play grounds and libraries among others.
**Public Primary School:** An institution in which children receive the first stage of compulsory education known as primary or elementary education and is managed by government at subsidised or no cost.

1.11 **Organization of Study**

Chapter one covers introduction and background of the study, statement of the problem, purpose of the study, objectives of the study, research questions, research hypothesis, significance of the study, basic assumptions of the study, delimitations of study, limitations of study and definitions of significant terms.

Chapter two covers introduction, concept of quality education, theories on quality of education, the concept of free education and challenges inherent, factors affecting educational quality; both theoretical and empirical literature, conceptual framework and summary of literature.

Chapter three covers introduction, research design, research methodology, target population, sample population, sample size and sample selection, data collection instruments and procedure, validity and reliability of research instruments, data analysis techniques, ethical considerations and operationalization of variables.

Chapter four covers data analysis, presentations and interpretations. Some items include; correlation and hypothesis testing results.

Chapter five presents summary of research findings, discussions, conclusions, recommendations and suggestions for further research.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction
Chapter two covers Concept of quality education, theories on quality of education, the concept of free education and challenges inherent, factors affecting educational quality; both theoretical and empirical literature, conceptual framework and summary of literature.

2.2 Concept of Quality Education.
The goal of achieving UPE has been on the international agenda since the UDHR affirmed in 1948 that elementary education was to be made freely and compulsorily available for all in all nations. This objective was restated subsequently on many occasions, by international treaties and in United Nations conference declarations. Most of these declarations and commitments are silent about the quality of education to be provided (UNESCO, EFA Global Monitoring Report, 2005).

The concept of ‘quality education’ has been difficult to define. Debate on quality of education has focussed on learning achievement, relevance of curriculum to the labour markets and/or the social, cultural and political environment in which the learner finds him/herself as well as conditions of learning including teachers and facilities. The notion of quality of education should go beyond students/pupils results and look at determinants of such results including provision of teachers, buildings, equipments and curriculum among others. From this argument, the quality of education comprises three interrelated aspects: quality of human and material resources available for teaching (inputs), quality of teaching practice (process) and quality of results (outputs and outcomes), (Ngware, Oketch and Ezeh, 2008).

In the year 2000, the Dakar Framework for Action declared that access to quality education was the right of every child. Its expanded definition of quality set out the desirable characteristics of learners (healthy, motivated), process (competent teachers using active pedagogies), content (relevant curricula) and systems (good governance and equitable resource allocation). This is teaching and learning process that brings
the curriculum to life and determines what happens in the classroom and subsequently the quality of the learning outcomes.

When discussing quality education for all learners, it is important to understand that there is a difference between education and schooling. Education is defined as “the development of desirable qualities in people” of course; there is no agreement about the end of “desirable qualities” and what these are, but understanding of these educational purposes is a prerequisite to any detailed consideration of quality. Schooling, on the other hand, is about providing the service of education, i.e. of educating young people through institutionalised and universalised organised learning. While the universal provision of “basic education” has been considered a major improvement for the individual and society in the early 20th century, both in today’s context and in its interpretations it remains heavily contested, (Harber, 2004).

According to UNESCO (2005), the Education for All (EFA): Global Monitoring Report (GMR) 2005 - The Quality Imperative (EFA: GMR), two principles characterise most attempts to define quality in education: the first identifies learners' cognitive development as the major explicit objective of all education systems. The second emphasises education’s role in promoting values and attitudes of responsible citizenship and in nurturing creative and emotional development. Quality determines how much and how well children learn and the extent to which their education translates into a range of personal, social and developmental benefits.

UNESCO, in its report ‘The World of Education, Today and Tomorrow’, identified the fundamental goal of social change as eradication of inequality and the establishment of an equitable democracy. Consequently, it reported that ‘the aim and content of education must be recreated, to allow both for the new features of the society and the new features of democracy’. UNICEF’s approach to quality emphasizes desirable dimensions of quality as identified in Dakar Framework, which in its paper ‘Defining quality in education’ highlights the five dimensions as; learners, environment, content, process and outcomes. This study mainly focuses on the input aspects of quality of education which in turn influences all other dimensions of quality. These include aspects like; pupil enrolment, pupil teacher ratio, provision of
instructional materials as well as school physical facilities/infrastructure among others.

2.3 Theories on Quality of Education

There exist several theories on education and learning. Though three theories will be discussed, this study will be guided by the Social Cognition Learning Model/Theory. This is because the social cognition learning model tends to depict existing educational set up in Kenya which both curriculum based and teacher centred.

2.3.1 The Social Cognition Learning Model/Theory:

This theory asserts that culture is the prime determinant of individual development. Humans are the only species to have created culture, and every human child develops in the context of a culture. Therefore, a child's learning development is affected in ways large and small by the culture - including the culture of family environment - in which he or she is enmeshed. The core principles of The Social Cognition Learning Model are that: Culture makes two types of contributions to a child's intellectual development: Children acquire much of the content of their knowledge through their culture. The surrounding culture provides a child with the processes or means of their thinking. In short, according to the Social Cognition Learning Model, culture teaches children both what to think and how to think (Miller, 2005).

The Impacts of Social Cognition Learning Model on learning include:

**Curriculum:** - Since children learn much through interaction, curricula should be designed to emphasize interaction between learners and learning tasks.

**Instruction:** - With appropriate adult help, children can often perform tasks that they are incapable of completing on their own. With this in mind, scaffolding - where the adult continually adjusts the level of his or her help in response to the child's level of performance - is an effective form of teaching. Scaffolding not only produces immediate results, but also instils the skills necessary for independent problem solving in the future.

**Assessment:** - Assessment methods must target both the level of actual development and the level of potential development. What children can do by their own is their level of actual development and what they can do with help of others is their level of potential development. Two children might have the same level of actual
development, but given the appropriate help from an adult, one might be able to solve many more problems than the other (Ormrod, 1999).

**Champions of Social Cognition Learning Model/Theory**

Bandura: In 1963 Bandura and Walters broadened the social learning theory with the principles of observational learning and vicarious reinforcement. Bandura provided his concept of self-efficacy in 1977, while he refuted the traditional learning theory for understanding learning. According to his analysis, the social cognitive theory explains how people acquire and maintain certain behavioral patterns, while also providing the basis for intervention strategies (Bandura, 1997).

Glanz, K., 2002: Glanz indicates that Environment and situation provide the framework for understanding behaviour. Situation refers to the cognitive or mental representations of the environment that may affect a person’s behaviour. The situation is a person’s perception of the place, time, physical features and activity (Glanz et al, 2002). The three factors environment, people and behaviour are constantly influencing each other. Behaviour is not simply the result of the environment and the person, just as the environment is not simply the result of the person and behaviour (Glanz et al, 2002).

**Criticisms on Social Cognition Learning Model/Theory**

**Biological Criticism**

It has been argued that because social cognitive theory places so much emphasis on cognitive abilities such as modelling and forming expectations, it ignores biological or hormonal determinants. Some psychologists argue that biological or hormonal processes can largely shape the way people reason and make decisions regardless of past experiences or cognition (Fosnot, C. T. (Ed.) (1996).

**Innate Criticism**

It has been argued that social cognitive theory ignores innate genetic differences and differences in learning ability. For instance, it has been argued that some people may be innately better at learning some skills than others. Additionally, some people with learning deficiencies may not be as good at observing and modelling behaviour. Social cognitive theory has been criticized for ignoring these differences (Freud, Lisa 2010).
2.3.2 Humanist Theory

For the humanists, learners are at the centre of ‘meaning making’ which implies a relativist interpretation of educational quality. Education, strongly influenced by the learner actions is judged central to developing the potential of a child. The notion that acquisition of knowledge and skills requires the active participation of individual learners is a central link between humanism and constructivist learning theory. Humanism rejects standardized, prescribed, externally defined or controlled curricula. They are seen as undermining possibilities of learners to construct their own meanings and for educational programmes to remain responsive to individual learners’ circumstances and needs. The teachers role is more that of a facilitator than an instructor. Social constructivism, while accepting these tenets, emphasizes learning as a process of social practice rather than the result of individual intervention (UNESCO, EFA Global Monitoring Report, 2005).

Some of the proponents of humanist theory include; Carl Rogers, Abraham Maslow, John Holt, Arthur Combs and Malcolm Knowles. The primary purpose of humanism is to produce self actualised autonomous persons. Meanwhile, critics of humanism fear that people could be prone to over indulge than critically seek self actualization. Instead of seeking to better themselves people may instead accept their actual selves as ideal self and refuse to grow thinking that they have reached self actualization by lowering their standards. Humanist theory is said to make some generalization about human nature that are not widely accepted as complete.

2.3.3 Constructivism Theory

This is a philosophy of learning founded on the premise that, by reflecting on our experiences, we construct our own understanding of the world we live in. Each of us generates our own "rules" and "mental models," which we use to make sense of our experiences. Learning, therefore, is simply the process of adjusting our mental models to accommodate new experiences. Constructivism theory explains how knowledge is constructed in the human being when information comes into contact with existing knowledge that had been developed by experiences. It has its roots in cognitive psychology and biology and an approach to education that lays emphasis on the ways knowledge is created in order to adapt to the world (Reich, 2009). The guiding principles of Constructivism are that: Learning is a search for meaning. Therefore,
learning must start with the issues around which students are actively trying to construct meaning. That, Meaning requires understanding wholes as well as parts and parts must be understood in the context of wholes. Therefore, the learning process focuses on primary concepts, not isolated facts. That, In order to teach well, we must understand the mental models that students use to perceive the world and the assumptions they make to support those models. And finally, that, The purpose of learning is for an individual to construct his or her own meaning, not just memorize the "right" answers and regurgitate someone else's meaning. Since education is inherently interdisciplinary, the only valuable way to measure learning is to make assessment part of the learning process, ensuring it provides students with information on the quality of their learning. (Meyer, 2009)

The Impacts of Constructivism theory on learning are:

**Curriculum:** - Constructivism calls for the elimination of a standardized curriculum. Instead, it promotes using curricula customized to the students' prior knowledge. Also, it emphasizes hands-on problem solving.

**Instruction:** - Under the theory of constructivism, educators focus on making connections between facts and fostering new understanding in students. Instructors tailor their teaching strategies to student responses and encourage students to analyze, interpret, and predict information. Teachers also rely heavily on open-ended questions and promote extensive dialogue among students.

**Assessment:** - Constructivism calls for the elimination of grades and standardized testing. Instead, assessment becomes part of the learning process so that students play a larger role in judging their own progress (Reich, 2009).

Some of the proponents of constructivism theory include:

Bruner Jerome: Constructivism was influenced by the earlier theoretical research of Lev Vygotsky, and Jean Piaget. His theoretical framework supports the belief that learners construct new ideas or concepts based upon existing knowledge. The process of learning is active and involves transformation of information, deriving meaning from experience, forming hypotheses, and decision making.

M.L. Bentley: Constructivism is undoubtedly a major theoretical influence in contemporary science and mathematics education. Some would say it is the major influence. In its postmodernist and deconstructionist form, it is a significant influence...
in literary, artistic, history, and religious education. Constructivism seemingly fits in with, and supports, a range of multicultural, feminist, and broadly reformist programs in education. Although constructivism began as a theory of learning, it has progressively expanded its dominion, becoming a theory of teaching, a theory of education, a theory of the origin of ideas, and a theory of both personal knowledge and scientific knowledge. Indeed constructivism has become education’s version of the “grand unified theory”.

The major Critic of Constructivism Theory, Phillips praised constructivism for its emphasis on learners’ active participation and the heightened recognition given to the social nature of learning. The bad side of constructivism lies in its tendency towards epistemological relativism (including individual and social community relativism), which seems to be the major challenge that constructivists face (Other critics with similar criticism as Philip include; Fox, 2001; and Cobb, 1996).

Vygotsky (1962), among others, criticized the behaviourist approach as being too narrow, specialized, isolated and intrapersonal in standpoint. Likewise, the information-processing approach of the 1960s and 1970s was criticized as being overly reductionist in its analogy of computer and mind (Mayer, 1996). Both approaches failed to reflect either the active role of the learning agent or the influence of the social interactive contexts in everyday educational settings. Their mechanistic underpinning by an orderly, predictable, and controllable view of the universe proved inadequate to capture the active and social characteristics of learners (Phillips, 1995).

**2.4 The Concept of Free Education and Challenges Inherent**

Education in its general sense is a form of learning in which knowledge, skills, and habits of a group of people are transferred from one generation to the next through teaching, training, research, or simply through autodidacticism. Generally, it occurs through any experience that has a formative effect on the way one thinks, feels, or acts (May, S. and Aikman, S. 2003). Free education refers to education that is funded through taxation, or charitable organizations rather than tuition fees. Although primary school and other comprehensive or compulsory education is free in many countries, it excludes provision of textbooks and a number of administrative and sundry fees. In Kenya, despite the governments’ effort towards the realization of
Education for All (EFA), it continues to experience a number of challenges. These include gender disparities, high poverty levels, Teacher supply and quality, HIV/AIDS Pandemic and Inadequate financial resources (UNESCO, EFA global monitoring report - 2005)

**2.5 Factors Affecting Quality of Education**

2.5.1 Enrolment of Pupils in Public Primary Schools in Kenya
The Government of Kenya, like many in sub-Saharan Africa, introduced free primary education (FPE) in 2003 with the aim of providing universal access to education to all children. FPE is one of the Millennium Development Goals (MDGs). Existing evidence shows that the FPE has increased enrolment rates and provided opportunities to many children who had previously been excluded from school.

Primary school enrolment increased from about 5.9 million in 2002 to about 7.2 million pupils by 2004, resulting in a gross enrolment rate of 104% compared with 87.6% in 2002 (MOE, Education Statistical Booklet 2003-2007). The national primary Gross enrolment rate (GER) was 114.7% in 2007 (116.9% for boys and 112.4% for girls). The national primary school Net Enrolment Rate (NER) was 92% in 2007. Further, it is projected that public primary school enrolment will increase from 7.5 million pupils in 2007 to 10.5 million in 2015 (School Mapping Data MOE-2011).

According to Ohba (2009), the increase in enrolment as a result of FPE had huge consequences for schools. From 2003 to 2008, the population of students attending primary school expanded by an additional 2.3 million pupils, a national increase of 39%. This has put huge strains on the quality of education in schools. First, the influx of students created a massive teacher shortage. While the number of students increased, the number of teachers did not. The government claims it has no more teachers to provide. As a result, teachers were overwhelmed and overworked. Classes were manageable at 40 or 50 students, but some classes have now expanded to over 100 students. Especially in the case of rural areas, class size has tripled due to the number of older students that started their education in 2003 who had missed the opportunity before.
The impact of Free Primary Education (FPE) on enrolment and achievement of the universal education has come with their own set of challenges. The Free Primary Education (FPE) policy has got limited success in raising overall enrolment rates in some instances. A study by (Jesse, 2011) documents a significant decline in demand for public schools, and an enrolment shift toward private schools, particularly among wealthier, more educated households. In addition, the provision of quality education remains a challenge. This was highlighted by a recent study by Uwezo (2010) which found disappointing levels of learning among primary school children. The continued and consistent dominance of private schools in the KCPE has further raised concerns about the rising disparity in quality between public and private schools.

As students from richer households increasingly enrol in private primary schools, designing policies that address the achievement gaps in public primary schools will overwhelmingly benefit students from poorer households that are unable to access private schools. The improvement of public school quality is a leading issue for developing countries, as many of them are approaching universal primary education. There is much evidence suggesting that education systems in developing countries are deficient and lack basic inputs (Alubisia, 2005). There is also a hypothesis that FPE has expanded differences in quality of education between primary schools. Most of the primaries that faced high increases in enrolment were also ones that did not have the infrastructure to support it. Schools in wealthier areas that could have absorbed more students did not experience high enrolment because the children living in those surrounding areas could already afford education. Therefore, poorer schools were faced with more challenges, leading to a larger quality disparity between schools (Sawamura, and Sifuna, 2008).

Table 2.1 Primary School Gross Enrolment Ratio by gender 2002-2012 (%)

<table>
<thead>
<tr>
<th>Gender/Year</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>88.9</td>
<td>105.0</td>
<td>108.0</td>
<td>109.9</td>
<td>109.3</td>
<td>110.7</td>
<td>112.2</td>
<td>112.8</td>
<td>112.9</td>
<td>113.1</td>
<td>113.0</td>
</tr>
<tr>
<td>Girls</td>
<td>87.5</td>
<td>100.5</td>
<td>101.6</td>
<td>104.4</td>
<td>105.5</td>
<td>104.4</td>
<td>107.3</td>
<td>107.2</td>
<td>106.9</td>
<td>107.5</td>
<td>107.8</td>
</tr>
<tr>
<td>Total</td>
<td>88.2</td>
<td>102.8</td>
<td>104.8</td>
<td>107.2</td>
<td>107.4</td>
<td>107.6</td>
<td>109.8</td>
<td>110.0</td>
<td>109.9</td>
<td>110.3</td>
<td>110.4</td>
</tr>
</tbody>
</table>

Table 2.2 Primary Schools Net Enrolment Ratios by Regions, 2000-2009 (%)

<table>
<thead>
<tr>
<th>Region</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nairobi</td>
<td>26.0</td>
<td>40.9</td>
<td>27.3</td>
<td>37.7</td>
<td>38.3</td>
<td>40.1</td>
<td>32.9</td>
<td>46.2</td>
<td>46.2</td>
<td>60.8</td>
</tr>
<tr>
<td>Central</td>
<td>78.7</td>
<td>81.7</td>
<td>85.6</td>
<td>83.9</td>
<td>81.6</td>
<td>87.4</td>
<td>83.0</td>
<td>82.5</td>
<td>83.5</td>
<td>83.7</td>
</tr>
<tr>
<td>Coast</td>
<td>49.4</td>
<td>56.2</td>
<td>55.7</td>
<td>63.5</td>
<td>70.3</td>
<td>74.2</td>
<td>71.8</td>
<td>80.8</td>
<td>82.4</td>
<td>82.6</td>
</tr>
<tr>
<td>Eastern</td>
<td>79.3</td>
<td>84.9</td>
<td>89.6</td>
<td>90.4</td>
<td>91.5</td>
<td>94.3</td>
<td>95.3</td>
<td>98.3</td>
<td>98.4</td>
<td>98.6</td>
</tr>
<tr>
<td>N. Eastern</td>
<td>15.4</td>
<td>15.3</td>
<td>17.0</td>
<td>21.6</td>
<td>19.6</td>
<td>23.0</td>
<td>22.6</td>
<td>27.5</td>
<td>31.9</td>
<td>35.5</td>
</tr>
<tr>
<td>Nyanza</td>
<td>80.0</td>
<td>91.0</td>
<td>89.4</td>
<td>95.8</td>
<td>96.6</td>
<td>97.8</td>
<td>97.8</td>
<td>98.3</td>
<td>98.5</td>
<td>98.7</td>
</tr>
<tr>
<td>R Valley</td>
<td>69.5</td>
<td>74.6</td>
<td>81.3</td>
<td>83.1</td>
<td>86.6</td>
<td>86.6</td>
<td>90.8</td>
<td>97.8</td>
<td>98.0</td>
<td>98.2</td>
</tr>
<tr>
<td>Western</td>
<td>76.8</td>
<td>89.4</td>
<td>93.7</td>
<td>95.3</td>
<td>98.2</td>
<td>96.8</td>
<td>96.8</td>
<td>99.0</td>
<td>99.3</td>
<td>99.5</td>
</tr>
<tr>
<td>National</td>
<td>67.8</td>
<td>75.1</td>
<td>77.3</td>
<td>80.4</td>
<td>82.1</td>
<td>83.2</td>
<td>86.5</td>
<td>91.6</td>
<td>92.5</td>
<td>92.9</td>
</tr>
</tbody>
</table>


The introduction of free primary education in 2003 was received with mixed reactions across the country, UNESCO, (2005). The government’s task force reported that the implementation of the program was faced with a number of glaring challenges that required to be addressed.
Many schools had an overwhelming increase in enrolment while others witnessed mass exodus. Average class sizes rose from 40 to 70 while the facilities remained the same. The increase in both Net and Gross enrolment ratio is as shown in tables 2.1 and 2.2.

According to Chuck, (2009) Over enrolment of the students in schools where the structures meant to offer the comfort of the class sitting are not even half of the student’s attendant is the nature of the classrooms after introduction of the free primary education. This implicates on the delivery of quality education by the teachers in the class. An uncomfortable student will never gain quality education whatsoever, an excessively filled class will not get quality of education from a single teacher no matter what and a congested class will never be suitable for offering quality services to the student. A study by Jesse (2011) indicated that Increased number of students and failure by the government to hire more teachers to balance with the increase is what has created poor performance among the students and eventually a big shift by many students from public schools, to private school where they can get a personalized attention and subsequently quality education and better performance in national examinations.

The any age admission policy had resulted in enrolment of many overage pupils who are unable to cope in class with younger pupils. Some of these pupils were previously working as maids or others are married. Such people find it difficult to follow rules and obey teachers resulting in indiscipline cases. Some of the pupils are admitted to class one without going through the nursery or the kindergarten (UNESCO, 2005).

2.5.2 Pupil Teacher Ratio
According to (Boy, 2006) over enrolment has caused poor performance in public primary schools in Kenya. The reality of teachers trying to teach over 100 pupils has become too common in public schools and has raised concern about academic standards and therefore questions the effectiveness of public schools. Teachers have complained of increased pupil teacher ratio. Many primary schools are understaffed as a result of the free primary education program. This therefore affects their performance (Too, 2005). The problem of high student teacher ratio is not unique to Kenya.
Private schools continue to administer periodic continuous assessment tests and regular examinations to achieve good academic results. Since the introduction of free primary education in public schools student assessment especially in continuous assessment tests have stopped. This can clearly explain why these schools continue to perform poorly. Large classes make it impossible for teachers to administer and grade their work and provide feedback on performance. Teachers working morale has remained low in public schools in Kenya due to low compensation (Jesse, 2011).

In education, two widely-advocated reforms are hiring teachers locally, on short-term contracts, rather than centrally through a civil-service system, and School-Based Management (SBM). Both reforms have been implemented in many countries over the past decade. The introduction of free primary education has raised primary school enrolment in many developing countries. However, the resulting overcrowding of schools, as well as the influx of new students with little or no preparation, poses new challenges to policymakers. One method of lowering the pupil-teacher ratio, versions of which have been used by many governments, is to hire low-paid local contract teachers to supplement government-salaried teachers. However, there are concerns that these teachers may be less experienced, less motivated and therefore less effective (Chuck, 2009).

Over enrolment of students has sometimes led to desperate and ineffectual attempts by the Kenyan government to hire partially trained, or untrained teachers to seal the gap, but it has not born any fruits. In most schools, there is a widespread failure with respect to teachers and the teaching profession. For instance it emerged that in some schools the Teacher pupil ratio was 1:70 which was far beyond the recommended maximum rate of 1:40. Such a high ratio has got its own challenges (Okwach & George, 1997). Teachers find it impossible to pay attention to all learners, especially the slow ones. Also teachers were not able to give adequate assignments to the pupils, as they could not cope with the marking and teaching workload (UNESCO, 2005).

The recommended pupil-teacher ratio for public primary schools in Kenya is 40 (Teachers Service Commission, 2005). However, a study by Ministry of Education (2010), showed that Pupil-teacher ratio in public primary schools in Kenya was 46.78 in 2009, this is also according to a World Bank report, published in 2010. This is an
increase from 43 pupils to one teacher in 2007 as shown by Ministry of Education School mapping data 2007 published in 2011. Teaching and learning has been compromised by large classes and shortage of teachers. Pupils hardly get attention they deserve and therefore do not learn much. Teacher pupil interaction is minimal as teachers can only move along with brighter pupils leaving out slow learners. It was also noted that teachers were giving fewer assignment than before to avoid huge work load (UNESCO, 2005).

Primary school pupil-teacher ratio is the number of pupils enrolled in primary school divided by the number of primary school teachers. Historically, Kenyan schools have had two types of teachers: those hired as civil servants through the Teachers Service Commission (TSC) of the Ministry of Education, and Parent-Teacher Association (PTA) teachers hired locally and informally by local school committees. For civil-service teachers, who have long constituted the vast majority of teachers, promotions, transfers, and disciplinary measures are decided through the TSC, rather than by more locally accountable bodies. Hiring and promotions are based heavily on formal, objective criteria, such as educational qualifications and experience. These teachers are represented by a strong union, have civil-service protection, and receive wages and benefits considerably above market levels (Ministry of Education, 2006).

In the year 2012, enrolment of primary school children stood at 8.1million. Recently, a research on the efficacy and quality of FPE and the findings clearly spelt out that a high number of class eight pupils could not construct a single sentence in English (Republic of Kenya Ministry of Education, 2012).

The teacher student ratio in the modern free public primary schools is a crisis that was either not anticipated, not planned or was over looked by the free primary education planning commission. The influx of student in any learning institution means need for increased number of teachers. For pupils to get quality services from their teachers, they ought to be a manageable number in classroom so that their needs can be attended to by one teacher at ago. However, this has not been witnessed in the current Kenyan free primary education setting, where the number of students is too big to be handled in a single classroom by a single teacher. This demeans the quality of education in the whole free primary school education (Boy, 2006).
2.5.3 Adequacy of Instructional Materials

The quality of education offered in a school is determined by the level of material inputs allocated to the school and the efficiency with which these materials are organized and managed to raise student achievement. Provision of instructional materials including text books was identified as one key achievement of the FPE programme, particularly through reducing the cost burden of education on parents and thus leading to an influx of pupils to school. However, private schools provide better facilities to their pupils and teachers for instance; libraries and computer facilities among others. On the other hand in public primary schools provision of instructional materials were not commensurate with the rapid increase in pupil enrolment. It should be noted that, free primary education in public schools has stretched teaching and learning facilities as a result of high influx of new pupils (Sifuna 2003)

While the government has waived tuition fees and provides textbooks, other classroom materials such as exercise books, writing materials and other stationery are still the parent's responsibility. This is because the government is faced with budgetary constrains as it tries to strike a balance between funding the all important education sector without compromising on other sectors which also need investment (Boy, 2006).

Though every pupil is entitled to free writing materials e.g. pencils, pens and exercise books under the FPE programme, this has not been realized. It emerged that textbooks were being shared in the ratio of one textbook to five pupils. Sharing of textbooks affected their accessibility to the books while at home and many have to do their homework early in the morning the next day when in school (Okwach & George, 1997).

Textbooks are an important resource in teaching and learning. With the introduction of FPE in 2003, the Ministry of Education provided a list of approved textbooks in all subjects. Schools following the 8-4-4 curriculum were expected to choose from the approved list of books. Approval is made based on the recommendations of the Kenya Institute of Education, which is a government agency charged with curriculum development in all public learning institutions under the Ministry of Education except universities. Government policy on pupil-textbook ratio stipulates that lower primary
(grades 1-4) should have a ratio of at most 3:1 while upper primary should have a ratio of at most 2:1 in all main subjects. The pupil-textbook ratios in Science, Mathematics and English in both lower and upper primary grades were examined in all schools (Ngware, Oketch and Ezeh, 2008).

Curriculum is a statement of the goals of learning, the methods of learning, etc. The role of teachers is to help learners to learn. Teachers have to follow the curriculum and provide, make, or choose materials. They may adapt, supplement, and elaborate on those materials and also monitor the progress and needs of the students and finally evaluate students. Materials include textbooks, video and audio tapes, computer software, and visual aids among others. They influence the content and the procedures of learning. The choice of deductive versus inductive learning, the role of memorization, the use of creativity and problem solving, production versus reception, and the order in which materials are presented are all influenced by the materials (Too, 2005).

Miskel, & Wayne, (2009) argue that materials have a hidden curriculum that includes attitudes toward knowledge, attitudes toward teaching and learning, attitudes toward the role and relationship of the teacher and student, and values and attitudes related to gender and society. Materials have an underlying instructional philosophy, approach, method, and content, including both linguistic and cultural information. Choices made in writing textbooks are based on beliefs that the writers have about what language to use and how it should be taught. Writers may use a certain approach, for example, the aural-oral approach, and they may choose certain activities and select the linguistic and cultural information to be included.

Improper planning of the free primary schools has resulted to inadequacy of teaching and learning materials in the public primary schools. Most of the teaching and learning materials in free primary school education are provided by the government through a set budget that is scheduled for each school for either a year or for a term. Increased rate of corruption and misappropriation of such facilities has rendered the quality of service delivery in the public primary schools impossible (Arenstrop, 2004).
2.5.4 Physical facilities/Infrastructure
Lack of physical facilities in public schools remains a major impeding factor to the achievement of overall effectiveness in public schools. According to (Too, 2005) Second enrolment has also overloaded school facilities. Like with the number of teachers, the number of classrooms has not increased correspondingly to the increase in students. Classrooms that were built for 30 students to sit comfortably are now packed with three times the number of students. The shortage of desks forces two or sometimes three students to squeeze onto a small bench. The learning environment has become uncomfortable, encouraging students to become distracted. In some cases, the number of classrooms is not enough, so classes need to be held outside on the field while teachers conduct them with megaphones. Offices and other schoolrooms have been converted to classrooms for the children. Facilities have been much more difficult to maintain and have led to deterioration.

According to UNESCO, the minimum pupil or student classroom space should be 1.5 square meters per pupil with one-seater desk, which would translate to 67.5 square meters for a room expected to hold 45 students. The Ministry of Education recommends a 7.5m x 6.0m classroom (Government of Kenya, 2000). This translates to 45 square meters or about 1 square meter per child in a room with 45 children. Currently, the Ministry is working on a standard classroom area of 61.9 square meters for 40 pupils with a one-seater desk. This will compare relatively well with the UNESCO standards of 1.5 square meters per pupil. Overcrowded classrooms, too few trained teachers, insufficient schoolbooks and few toilets, often without separation between boys and girls: these are some of the problems facing primary school students in Sub-Saharan Africa (Alubisia, 2005). A number of studies have shown that many school systems, particularly those in urban and high-poverty areas, are plagued by decaying buildings that threaten the health, safety, and learning opportunities of students. Good facilities appear to be an important precondition for student learning, provided that other conditions are present that support a strong academic program in the school (Ohba, 2009).

Sanitary facilities in schools equally play an important role in learning environment. Adequate and clean sanitary units contribute to physiological well being of the learners. The Ministry of Education has set the minimum standards for the provision
of toilets as part of the school sanitation facilities: the minimum number of toilets in a school is 4 for the first 30 pupils, thereafter a ratio of 25:1 and 30:1 applies for girls and boys, respectively (Government of Kenya, 2000).

According to School Mapping Data MOE, (2011), National Pupil Toilet Ratio (PToR) for boys in public and private primary schools in 2007 was 38 pupils per 1 toilet and 22 pupils per 1 toilet respectively while that for girls was 32 pupils per 1 toilet and 19 pupils per one toilet. The PToR for boys ranged from a maximum of 68 pupils per single toilet in former Coast Province to a minimum of 23 pupils per single toilet in former Central Province. Former Coast province also recorded the highest PToR for girls at 57 pupils per a single toilet while Central Province recorded lowest of 19 pupils per single toilet. It is important to note that Mombasa County which was part of the former Coast Province is affected by these challenges. Going by the Ministry of Education standards, the average pupil-toilet ratios in government schools, is above the benchmark.

If education system is to promote effective learning and prevent learning breakdown, it is imperative that mechanisms or infrastructures are structured into the system to break down existing barriers. Such mechanisms must develop the capacity of the system to overcome barriers which may arise, prevent barriers from occurring, and promote the development of an effective learning and teaching environment. Decent facilities make additional contributions to teachers work. The arrangement of space has immediate and far reaching consequences for teacher's ability to effectively and efficiently accomplish daily activities, the formation of social and professional relationships, and the sharing of information and knowledge. Spacious classes are required for easy movement and interaction between pupils and teachers during teaching and learning (Aduda 2005).

According to studies by UNESCO (2005), School infrastructure is the key to the delivery of quality services to the students. The implementation of free primary school in Kenya has got it all wrong on the infrastructure. Little or nothing has been done to ensure that the influx of student is handled at a bigger capacity. The Kenyan free primary school scenario has seen high number of student enrolment but below per infrastructure to offer such numbers the quality education that they need.
2.6 Conceptual Framework.

Figure 2.1 Conceptual framework

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrolment</td>
<td>How level of Enrolment affects quality of education</td>
</tr>
<tr>
<td>Pupil Teacher ratio</td>
<td>How ratio of teachers to pupils affects quality of education</td>
</tr>
<tr>
<td>Instructional Materials</td>
<td>How instructional material availability and adequacy affects quality of education</td>
</tr>
<tr>
<td>Physical facilities/infrastructure</td>
<td>How availability, adequacy and status of school infrastructure affects quality of education</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quality of public education</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ School levy charged</td>
</tr>
<tr>
<td>▪ School management</td>
</tr>
</tbody>
</table>

2.7 Summary of Conceptual Framework

Enrolment: The Government of Kenya, like many in sub-Saharan Africa, introduced free primary education (FPE) in 2003 with the aim of providing universal access to education to all children. This is one of the Millennium Development Goals (MDGs). The enrolment of children in primary schools has greatly been enhanced by non payment of schools fees and element of mandatory primary education. The influx of children in primary schools is increasingly compromising the quality of education in public primary schools in Kenya.

Pupil Teacher ratio: The recommended pupil-teacher ratio for public primary schools in Kenya is 1:40. The reality of teachers trying to teach over 100 pupils has
become too common in public schools and has raised concern about academic standards and therefore questions the effectiveness of public schools. The increasing number of pupils in public schools and constant number of teachers in schools affects quality of education in public primary schools. The need to increase the number of teachers to match the increase of pupils in schools has been the issue of discussion since introduction of free primary education in 2003. It is therefore apparent that without increasing the number of teachers to meet the needs of pupils the quality of primary education is in jeopardy.

**Instructional Materials:** The quality of education offered in a school is determined by the level of material inputs allocated to the school and the efficiency with which these materials are organized and managed to raise pupil’s achievement. With high enrolment and few instructional materials quality of education in public primary schools in Kenya has been undermined. Increased number of pupils in public school requires an equally increased number of instructional materials such as textbooks.

**Physical facilities/infrastructure:** Lack of physical facilities in public schools remains a major impeding factor to the achievement of overall effectiveness in public schools. A number of studies have shown that many school systems, particularly those in urban and high-poverty areas, are plagued by decaying buildings that threaten pupil’s health, safety, and learning opportunities of students. The increased infrastructural challenge determines that quality of education that can be offered in any public primary school. There are set guidelines on what infrastructure should be available in schools and how each can be compared with the number of learner’s enrolment. Lower quality of physical infrastructure or lack of the same, can greatly hamper the decline or challenges to the quality of education offered to the primary school children in public primary schools.

**2.8 Summary of Literature**
Like in most developing countries, quality education is one of the key national development goals of the Kenyan government (Reche et al., 2012). Indeed, because of the FPE policy, more marginalized children could now go to school. They do not have to pay for their tuition, and can receive free textbooks and school supplies from the government. This policy increased access to education especially for children from
marginalized families. However, increased enrolments have been blamed for larger class sizes and declining teacher morale (Swamura and Sifuna, 2008). Despite increased access to education, there is growing inequity in academic performance of children from rich and poor backgrounds. The study attempts to evaluate the free primary education policy and its effect on quality of education in public primary schools in Mombasa County Kenya.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction
The methodology section gives details regarding the procedures used in conducting the study. Pertinent issues discussed in this section include the research design, sample size, sampling procedure, methods of data collection and data analysis.

3.2 Research Design
In this study, the researcher considered descriptive survey design as the most suitable research design. The term survey can be used to designate any research activity in which the investigator gathers data from a portion of a population for the purpose of examining the characteristics, opinions or intentions of that population (Altheide, & Johnson, 1998). A descriptive design is selected because of its high degree of representativeness and the ease with which a researcher could obtain the participants’ opinion. (Schervish, 1996: 218). In this study, the researcher obtained views of the respondents with regard to the free primary education policy and its effect on quality of education in public primary schools in Mombasa County Kenya. The focus of this study was on variables relating to quality of education in public primary schools in Mombasa County Kenya.

3.3 Target Population
The study targeted public primary schools in Mombasa County. The County has got 6 Constituencies namely; Mvita, Changamwe, Jomvu Kuu, Likoni, Kisauni and Nyali. However, the newly demarcated constituencies specifically Jomvu kuu and Nyali, have not yet been reflected in the new education map to depict the exact number of public primary schools in those constituencies. Therefore, this study used the old education map that shows public primary school in the four old constituencies.

The County has 140 primary schools. These includes; 52 private primary schools and 88 public primary schools. Of these public primary schools; 19 of them are in Changamwe constituency, 24 in Kisauni Constituency, 17 in Likoni and 28 public primary schools in Mvita. The table below shows the constituencies in Mombasa County, the number of public primary schools in each constituency and number of teachers in those public primary schools. The study targeted the head teachers, deputy head teachers and teachers in public primary schools in the County.
### Table 3.1 Mombasa County Public Primary Schools Statistics

<table>
<thead>
<tr>
<th>Constituencies</th>
<th>Number of teachers In public primary schools</th>
<th>Number of public primary schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changamwe</td>
<td>416</td>
<td>19</td>
</tr>
<tr>
<td>Likoni</td>
<td>284</td>
<td>17</td>
</tr>
<tr>
<td>Mvita</td>
<td>420</td>
<td>28</td>
</tr>
<tr>
<td>Kisauni</td>
<td>525</td>
<td>24</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1645</strong></td>
<td><strong>88</strong></td>
</tr>
</tbody>
</table>

Source: County Education offices Mombasa - Mombasa Municipal Council (2013)

### 3.4 Sample Size and Sampling Technique

The study used stratified random sampling to obtain the target public primary schools used for the study in each constituency. This is because there are varying numbers of primary schools in each constituency and there was need to get fair representation of schools in the entire county. According to Mugenda and Mugenda (1999), a sampling fraction of between 10-30% of the total population in a simple random sampling design is considered representative. Using this Principle of getting the sample size, the researcher used 10% to get a sample representation from each of the four constituencies. The researcher arrived at three primary schools in Mvita constituency, two primary schools in Likoni constituency, two primary schools in Kisauni constituency and two primary schools in Changamwe constituency. The above process of sampling to get a 10% sample representation of schools in each constituency is as presented in Table 3.2.
Further, simple random sampling technique was used to arrive at Kikowani, Makupa and Majengo Primary schools in Mvita constituency, Shikaadabu and Mtongwe primary schools in Likoni constituency, Kengeleni and Mtopanga primary schools in Kisauni constituency and Miritini and Mikindani primary schools in Changamwe constituency. To arrive at the number of teachers to be used to respond to questionnaires the researcher employed census sampling technique to choose all the teachers, deputy head teachers and head teachers in all the nine public primary schools in the four constituencies. The reason for using Census sampling design is because 203 is a manageable number of respondents and if a further resample was to be done to get any smaller number than the provided 203, the number may not adequately represent the 88 public primary schools in the County. The sample selected, comprising of; schools, head teachers, deputy head teachers and teachers are shown in Table 3.3.
Table 3.3: Sample Population (Size)

<table>
<thead>
<tr>
<th>Constituencies</th>
<th>Targeted public primary schools</th>
<th>Targeted head teachers</th>
<th>Targeted deputy head teachers</th>
<th>Targeted teachers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mvita</td>
<td>Kikowani primary</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Makupa Primary</td>
<td>1</td>
<td>1</td>
<td>14</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Majengo Primary</td>
<td>1</td>
<td>1</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>Likoni</td>
<td>Shikaadabu Primary</td>
<td>1</td>
<td>1</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Mtogwe Primary</td>
<td>1</td>
<td>1</td>
<td>25</td>
<td>27</td>
</tr>
<tr>
<td>Kisauni</td>
<td>Kengeleni primary</td>
<td>1</td>
<td>1</td>
<td>20</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Mtopanga Primary</td>
<td>1</td>
<td>1</td>
<td>31</td>
<td>33</td>
</tr>
<tr>
<td>Changamwe</td>
<td>Miritini</td>
<td>1</td>
<td>1</td>
<td>19</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Mikindani</td>
<td>1</td>
<td>1</td>
<td>33</td>
<td>35</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>162</td>
<td>203</td>
</tr>
</tbody>
</table>

Source: County Education offices Mombasa - Mombasa Municipal Council (2013)

3.5 Data Collection Instruments

The study used questionnaire, Interview schedule, observation schedule and Content analysis of document as data collection instruments. Questionnaire was the main data collection instrument for this research and it was chosen because it helps the researcher to collect large amount of data in large areas within a short time thus saving time for the study (Orodho, 2003). Although the major disadvantage of the questionnaire is that illiterate respondents are unable to interpret and respond to the questions as required, the case was different in this study as all the targeted respondents were literate and were able to understand and answer the questions in the questionnaire accurately. The questionnaires contained both open-ended and closed ended questions which were based on the research questions and objectives of the study. Interview schedules were used with the head teachers and also contents analysis of school documents such as school enrolments and Kenya Certificate of Primary Education (KCPE) mean scores over the years were requested from the head teachers.

3.6 Data Collection Procedure

The researcher obtained letter of introduction from the University of Nairobi and a research permit from the Mombasa County Education Director. With these documents, the researcher booked appointments with the head teachers of each
selected primary school, which was followed by a pre-visit to those primary schools on the respective appointment dates. The questionnaires were then administered to the relevant respondents. The researcher ensured punctuality on the appointment dates, this helped to reduce inconveniences to the respondents, hence increasing the response rate. The researcher sought some time with head teachers to administer some interview questions.

3.7 Validity and Reliability of Research Instruments

3.7.1 Validity of Research Instruments
A research instrument is said to be valid if it measures what it is supposed to measure (Kombo & Tromp, 2006). In order to pre-test validity of the instruments and to perfect the questionnaire items, concept and wordings, content validity of the instruments was used to measure the degree to which the items represented specific areas covered by the study. According to Orodho (2003), the validity of an instrument is measured by its repeated reviews by experts and field tests.

To validate the instruments, the researcher checked whether there were any ambiguous and poorly prepared items. The instruments were tested to ascertain their validity and suitability in collecting the required data. The draft questionnaires were given to the supervisor, other lecturers and friends to appraise the items sustainability in obtaining data according to the research objectives. Feedback from the supervisor, lecturers and friends was used to make necessary corrections to the instruments to be used for final data collection.

3.7.2. Reliability of Research Instruments
Mugenda and Mugenda (1999) explained that reliability is a measure of degree to which a research instrument yields consistent results or data after an accepted number of repeat trials. The test-retest technique of measuring the reliability of the research instruments was used to eliminate biasness. The researcher conducted a pilot study to test and retest the instruments for reliability. For piloting, the researcher used Khadija primary school situated within Kisauni constituency. The school was chosen for its close proximity to researchers’ residence as it helped to ease the pilot test process.

The following steps were followed: The questionnaires were administered to the Head Teachers, Deputy Head Teachers and Teachers in Khadija primary school. The
responses were recorded manually. The same instruments were administered to the same respondents within a span of two weeks and the responses were again recorded manually. The spearman rank correlation coefficient was used to compute the extent to which the contents of the questionnaires are consistent in eliciting the same responses every time it was administered. Instruments giving a correlation coefficient of above 0.8 were used for the study as it assured of more reliability. The purpose of the pilot study was also to check whether the question items will cover enough range of data required, test whether there will be any identifiable ambiguities in the structure of the questions in order to make improvement. Pilot data collected was analyzed and the results used to modify the instruments before the actual study got underway. This led to evaluation and improvement of the instruments.

3.8 Data Analysis Techniques
Data collected was analyzed using quantitative and qualitative methods. Quantitative data was analyzed using statistical packages for social scientists (SPSS 20.0) to obtain descriptive statistics such as frequencies and percentages (Best and Khan, 2002). Qualitative data was analyzed using a combination of thematic and content analysis techniques. Under thematic approach, information was sorted out, classified and categorized under major themes identified. Based on the project findings, conclusions and relevant recommendations were made. Data was presented using tables among others.

Hypothesis testing was also used to analyze the data collected. The SPSS Linear regression analysis; Analysis of variance (ANOVA) was used to test the hypothesis. The Probability value (p-Value) obtained was used to determine whether to reject or accept the null hypothesis. This was done by stating the null hypothesis and the alternative hypothesis. Collecting and summarizing the data into a test statistic and using the test statistic to determine the p-Value. The result is statistically significant if the p-Value is less than or equal to the level of significance (0.05). If the null and alternative hypotheses are expressed in terms of a population proportion, mean or difference between two means and if the sample sizes are large, the test statistic is simply the corresponding standardized score computed assuming the null hypothesis is true; and the p-Value is found from a table of percentiles for standardized scores. However, we reject the null hypothesis if p-Value is less than or equal to alpha. We accept the null hypothesis if the p-Value is greater than Alpha. It is important to note
that for this study the SPSS software automatically generates the results on whether to reject or accept the null hypothesis by providing the p-Value.

3.9 Ethical Considerations
The researcher presented an introductory letter from the University of Nairobi and the research authorization letter from the Mombasa County Education Director which acted as a proof to the respondents that the researcher is genuine and that the research is meant for education purpose only. This was because some of the respondents might fear that the information given could be used against them. The researcher also promised the respondents to keep the data collected confidentially at all times. The researcher explained the significance of the study to quality of education in public primary schools in Mombasa County, Kenya.
<table>
<thead>
<tr>
<th>INDEPENDENT VARIABLES</th>
<th>INSTRUMENT USED</th>
<th>INDICATORS</th>
<th>MEASURE</th>
<th>SCALE</th>
<th>TOOLS OF ANALYSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENROLMENT</td>
<td>Questionnaire, Interview schedule, Content analysis of documents</td>
<td>Gross Enrolment Rate (GER), Net Enrolment rate (NER), Enrolment Criteria</td>
<td>Number Frequency</td>
<td>Nominal Ordinal Interval</td>
<td>SPSS</td>
</tr>
<tr>
<td>PUPIL TEACHER RATIO</td>
<td>Questionnaire, Interview schedule</td>
<td>Ratio of pupil to teachers, Teacher work load, motivation, Syllabus coverage, Child centred teaching, Classroom control, pupil evaluation</td>
<td>Number Frequency</td>
<td>Nominal Ordinal</td>
<td>SPSS</td>
</tr>
<tr>
<td>INSTRUCTIONAL MATERIALS</td>
<td>Questionnaire, Interview schedule</td>
<td>Pupil Text book ratio, Availability of teaching aid, availability of libraries/resource centres</td>
<td>Number Frequency</td>
<td>Nominal Ordinal</td>
<td>SPSS</td>
</tr>
<tr>
<td>PHYSICAL FACILITIES/ INFRASTRUCTURE</td>
<td>Questionnaire, Interview schedule, Observation schedule</td>
<td>Availability and status of classrooms, Pupil Classroom Ratio, Pupil Toilet Ratio Availability of Desks and chairs</td>
<td>Number Frequency</td>
<td>Nominal Ordinal</td>
<td>SPSS</td>
</tr>
</tbody>
</table>
CHAPTER FOUR
DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction
The chapter presents Data analysis and interpretation obtained through an interactive process of data collection. The analysis and interpretations are presented along thematic areas modelled along the following research objectives:

4.2 Response Rate
Table 4.1 shows the response rate to the questionnaires distributed out to the respondents.

Table 4.1 Response Rate

<table>
<thead>
<tr>
<th>Responses</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responded</td>
<td>168</td>
<td>83</td>
</tr>
<tr>
<td>Not Responded</td>
<td>35</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>203</td>
<td>100</td>
</tr>
</tbody>
</table>

According to the study, as shown in Table 4.1 above, 83% of the questionnaires distributed were responded to while 17% were never returned to the researcher by respondents.

4.3 Demographic Information of the Respondents
Table 4.2 shows gender of respondents in percentages

Table 4.2 Gender of the Respondents

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>51</td>
<td>30.4</td>
</tr>
<tr>
<td>Female</td>
<td>117</td>
<td>69.6</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>100.0</td>
</tr>
</tbody>
</table>
According to the study, 70% of the respondents were female while 30% were male. This is indicative of high percentage of female teachers within Mombasa County public primary schools.

Table 4.3 shows the age brackets of respondents

**Table 4.3 Age of the Respondents**

<table>
<thead>
<tr>
<th>Respondents age brackets (years)</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 30</td>
<td>27</td>
<td>16</td>
</tr>
<tr>
<td>30-39</td>
<td>71</td>
<td>42</td>
</tr>
<tr>
<td>40-49</td>
<td>54</td>
<td>32</td>
</tr>
<tr>
<td>Above 50</td>
<td>18</td>
<td>11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>168</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

According to the responses as shown in table 4.3 above, respondents below 30 years of age were 16%, those with age between 30 and 39 were 42%, those with ages between 40 and 49 were 32% and those above 50 years were 11%. The study therefore established that majority of the respondents (teachers) fall between the age brackets of 30-39.

Table 4.4 shows educational qualifications of the respondents

**Table 4.4 Respondents highest educational Qualification**

<table>
<thead>
<tr>
<th>Respondents Educational Qualifications</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masters</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Degree</td>
<td>45</td>
<td>27</td>
</tr>
<tr>
<td>Diploma</td>
<td>91</td>
<td>54</td>
</tr>
<tr>
<td>Ordinary level (O’level)</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Others</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>168</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
The study further sought to understand the educational qualifications of the respondents. According to Table 4.4 above, it was found that majority of the respondents hold diplomas representing 54%, those with first degree were 27%, those with masters’ degree were 4%, and those with ordinary level qualifications were 7%. Those with other unspecified qualifications such as P1 were 8%. Overall analysis can confirm that a good number of teachers have the necessary qualifications to teach primary school pupils.

Further it was found that due to high increase in enrolment in the wake of Free Primary Education (FPE) policy most schools have joined efforts with parents to hire some untrained teachers to reduce the teacher shortage.

Table 4.5 shows job position of the respondents.

**Table 4.5 Job Position**

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head Teachers</td>
<td>9</td>
<td>5.4</td>
</tr>
<tr>
<td>Deputy Head Teachers</td>
<td>9</td>
<td>5.4</td>
</tr>
<tr>
<td>Teachers</td>
<td>150</td>
<td>89.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>168</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The study targeted three groups of respondents, namely; teachers, deputy head teachers and head teachers. All head teachers and deputy head responded to the questionnaires while 150 teachers managed to respond to the questionnaires.

This implied that the study received a high number of responses which is adequate to be relied upon for this study.
Table 4.6 shows employer of respondents

**Table 4.6 Respondents on Employer**

<table>
<thead>
<tr>
<th>Respondents Employer</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers Service Commission</td>
<td>161</td>
<td>95.8</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>4.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>168</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The study found from Table 4.6 above, that 96% of the respondents were employees of the Teacher’s Service Commission (TSC) while the remaining 4% were hired by School Management Committees (SMC’s) or volunteers.

Table 4.7 shows responses on respondents work experience

**Table 4.7 Respondents Work Experience**

<table>
<thead>
<tr>
<th>Work Experience</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4 Years</td>
<td>43</td>
<td>25.6</td>
</tr>
<tr>
<td>5-9 years</td>
<td>74</td>
<td>44.0</td>
</tr>
<tr>
<td>Over 10 Years</td>
<td>51</td>
<td>30.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>168</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The study further sought to check the respondents work experiences. The study found that most of the respondents, with a high percentage of 44% had 5-9 years of teaching experience, 30% had over 10 years of experience while 26% had between 0-4 years of experience. It can be confirmed that the respondent exhibited adequate experience in primary school education in Mombasa County, Kenya.
4.4 Responses on Enrolment

Table 4.8 shows responses on effects of age disparity on pupil discipline

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>137</td>
<td>81.5</td>
</tr>
<tr>
<td>No</td>
<td>31</td>
<td>18.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>168</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The offer of free primary education has seen very many number of children get enrolled in public primary schools in Kenya. The study found that this has resulted to over age pupils enrolling in schools creating a big age disparity among the children in a similar class. The study found that 82% of the respondents confirmed that age disparity affects pupil discipline and in turn affected quality of education while 19% indicated that such age disparity has nothing to do with education quality. Further, the study indicated that pupils with different age brackets have different levels of understanding and capabilities and therefore such mix up presents a challenge for teachers when delivering the subject matter, as he or she is required to use different teaching methodology in the classroom for pupils with different ages.

Table 4.9 shows responses on whether high enrolment affects quality of education.

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>144</td>
<td>85.7</td>
</tr>
<tr>
<td>No</td>
<td>24</td>
<td>14.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>168</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

High pupil enrolment increases the class size but does not come with increased class carrying capacity. According to table 4.9 above, 86% of the respondent indicated that high number of pupils in a single classroom can increase strain, stress on both the teachers and pupils and eventually result in poor quality of education. Pupils will be
uncomfortable sitting in a congested classroom. The study found that congested classrooms lead to poor ventilation, poor health and poor concentration in class.

The teachers equally find it difficult to move around the classrooms to give individualized attention to pupils. However, 14% of the respondents believe that number of pupils in a classroom does not affect the quality of education.

Table 4.10 shows responses on how class size and age disparity affects quality of education.

**Table 4.10 Whether Class size or pupil age disparity affects Quality of Education**

<table>
<thead>
<tr>
<th></th>
<th>Very High (1)</th>
<th>High (2)</th>
<th>Fair (3)</th>
<th>Low (4)</th>
<th>Very Low (5)</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a To what extent does the number of pupils in a classroom affect the quality of education</td>
<td>75%</td>
<td>25%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>1.25</td>
<td>0.44</td>
</tr>
<tr>
<td>b How would you rate the effect of pupil age disparity in class on quality of education</td>
<td>69%</td>
<td>31%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>1.31</td>
<td>0.47</td>
</tr>
</tbody>
</table>

As indicated in table 4.10, the study found that the rate of enrolment has greatly affected quality of education. The number of pupils enrolled in schools is not commensurate to available resources. Age disparity of pupils has also been observed to be a big challenge to offering quality education. The study indicates that 75% of the respondents believed that high pupil enrolment affects quality of education while, 69% of respondents indicated that pupil age disparity is equally a challenge to the free primary education quality.
4.5 Teacher Pupil Ratio
Table 4.11 shows pupil teacher ratio in schools targeted for study

Table 4.11 Teacher pupil ratio in targeted schools

<table>
<thead>
<tr>
<th>Constituencies</th>
<th>Targeted primary schools</th>
<th>Number of Teachers</th>
<th>Number of Pupils</th>
<th>Teacher Pupil ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mvita</td>
<td>Kikowani primary</td>
<td>9</td>
<td>234</td>
<td>1:26</td>
</tr>
<tr>
<td></td>
<td>Makupa Primary</td>
<td>16</td>
<td>509</td>
<td>1:32</td>
</tr>
<tr>
<td></td>
<td>Majengo Primary</td>
<td>20</td>
<td>751</td>
<td>1:38</td>
</tr>
<tr>
<td>Likoni</td>
<td>Shikaadabu Primary</td>
<td>20</td>
<td>765</td>
<td>1:38</td>
</tr>
<tr>
<td></td>
<td>Mtogwe Primary</td>
<td>27</td>
<td>1283</td>
<td>1:48</td>
</tr>
<tr>
<td>Kisauni</td>
<td>Kengeleni primary</td>
<td>22</td>
<td>1020</td>
<td>1:46</td>
</tr>
<tr>
<td></td>
<td>Mtopanga Primary</td>
<td>33</td>
<td>1911</td>
<td>1:58</td>
</tr>
<tr>
<td>Changamwe</td>
<td>Miritini</td>
<td>21</td>
<td>783</td>
<td>1:37</td>
</tr>
<tr>
<td></td>
<td>Mikindani</td>
<td>35</td>
<td>1692</td>
<td>1:48</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>203</td>
<td>8948</td>
<td>1:44</td>
</tr>
</tbody>
</table>

The statistics in table 4.11 was obtained through content analysis of documents at various schools under study. The study obtained an average teacher pupil ratio of 1:44. This average is above the recommended teacher pupil ratio of 1:40. Further, it was also observed that some schools had ratio as high as 1:58 while others had as low as 1:26.

Table 4.12 shows responses on whether pupil teacher ratio affects quality of education

Table 4.12 Whether Pupil teacher ratio affects quality of education

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>154</td>
<td>90.5</td>
</tr>
<tr>
<td>No</td>
<td>14</td>
<td>9.5</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The study sought to understand whether pupil teacher ratio affects quality of education. The study found from table 4.12 above that 91% of the respondents believed that high number of pupils compared to low number of teachers affects quality of education.
Table 4.13 shows responses on whether pupil teacher ratio affects syllabus coverage.

Table 4.13 Whether Pupil Teacher ratio affects Syllabus Coverage

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>125</td>
<td>74.4</td>
</tr>
<tr>
<td>No</td>
<td>43</td>
<td>25.6</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The effect of teacher pupil ratio on syllabus coverage is as shown in table 4.13. The study found that 74% of the respondent believed that high number of pupil and low number of teachers has greatly affected the coverage of syllabus. A big class requires more time to cover content as teachers cannot give individualised attention. However, 26% of the respondents believed that low number of teacher and high number of pupil cannot affect the coverage of syllabus.

The study found that different pupils have different learning capacities, therefore putting many pupils with different levels and speed of understanding compromises quality learning.

Table 4.14 shows responses on whether Pupil teacher ratio affects classroom control.

Table 4.14 Whether Pupil teacher Ratio affects Classroom Control

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>139</td>
<td>82.7</td>
</tr>
<tr>
<td>No</td>
<td>29</td>
<td>17.3</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Control of bigger classes often posses a challenge to teachers. The analysis in table 4.14 found that 83% of the respondents believed that pupil teacher ratio in public primary schools have greatly contributed to the challenges of controlling classrooms. However, from 17% of the respondents, there is no link between class size and the capability to control a classroom. It can be confirmed from the analysis that it is
through a manageable number of pupils in a class that good teaching methods can be employed and quality education can be attained.

The study further found out that mobilizing a big class is more tiresome for teachers thus making it even more challenge to control such a class.

Table 4.15 shows responses on how various enrolment factors affects quality of education.

| Table 4.15 Rate of Effects of Various Enrolment Factors on Quality of Education |
|--------------------------------------------|----------------|----------------|----------------|----------------|
| Factors                                   | Very High 1 | High 2 | Fair 3 | Low 4 | Very Low 5 | Mean | standard deviation |
| To what extent does teacher workload affect quality of education? | 75% | 25% | 0% | 0% | 0% | 1.25 | 0.44 |
| How would you rate the effect of syllabus coverage on quality of education delivered? | 69% | 31% | 0% | 0% | 0% | 1.31 | 0.47 |
| To what extent does classroom control affect quality of education? | 61% | 33% | 3% | 3% | 0% | 1.47 | 0.70 |

The study found that there are many factors that affect quality of education. As shown on table 4.15, the study found from 75% of the respondents that teacher workload affects quality of education. High number of pupils in a class that is supervised by one teacher can lead to overwork and tiredness hence reducing the productivity of such a teacher and hence reduced quality of education offered to pupils. Furthermore, it was confirmed from 69% of the respondents that high enrolment of pupil in a class reduces the speed at which a teacher can work towards covering a syllabus since not every pupil has got the same speed of understanding and concentration. This therefore reduces the speed at which the teacher can cover the desired syllabus within stipulated time.

The study found that challenges surrounding class control are eminent and according to 61% of the respondents, such challenges affect the quality of education. It was
confirmed from the analysis that high number of pupils as a result of free primary education has led to strained syllabus coverage, difficulties in classroom management and overall workload to the teacher as they have to give all pupils assignment and homework and later ensure that they make all those assignments and award marks.

4.6 Instructional Materials
The study sought to understand whether instructional materials are available and also its effect on quality of education in public primary schools. The analysis and finding were as follows, starting with if public primary schools had library resources.

Table 4.16 shows responses on availability of libraries in public primary schools.

**Table 4.16 Availability of Libraries in schools**

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>36</td>
<td>21.4</td>
</tr>
<tr>
<td>No</td>
<td>132</td>
<td>78.6</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>100.0</td>
</tr>
</tbody>
</table>

According to table 4.16, 79% of the respondents, indicated that they had no library facilities in their schools. Increased enrolment has meant competing demands between increasing teachers and availing instructional materials such as text books. The analysis also found that 21% of the respondents had a contrary opinion that availability of library does not affect the quality of education in public primary schools.

Table 4.17 shows responses on whether availability of instructional materials affects quality of education.

**Table 4.17 Whether Availability of Instructional Materials affects quality of education.**

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>114</td>
<td>67.9</td>
</tr>
<tr>
<td>No</td>
<td>54</td>
<td>32.1</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>100.0</td>
</tr>
</tbody>
</table>
As shown in table 4.17, the study found from 68% of the respondents that availability of instructional materials enhances attainment of quality education in public primary schools. It was found that through provision of the right educational materials pupil are able to understand what they are being taught, can be able to memorise their studies and conceptualise the ideas given by their teachers. Nevertheless, 32% of the respondents felt that there is a very low or no relationship between availability of instructional materials and the quality of education. The study indicates that the instructional materials help pupil to understand through different procedures and methods applied by their developers to ensure pupil attain good understanding of what they are taught.
Table 4.18 shows responses on effects of various instructional materials on quality of education.

**Table 4.18 Rate of effects of various Instructional materials on quality of education**

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Moderate</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Textbook pupil ratio affects quality of education offered in schools</td>
<td>98%</td>
<td>8%</td>
<td>0%</td>
<td>0%</td>
<td>1.08</td>
<td>0.28</td>
</tr>
<tr>
<td>b</td>
<td>Availability and use of teaching aid in a classroom affects the quality of education in schools</td>
<td>83%</td>
<td>6%</td>
<td>6%</td>
<td>6%</td>
<td>1.33</td>
<td>0.83</td>
</tr>
<tr>
<td>c</td>
<td>Libraries and resource centres play a key role in determining the quality of education in primary schools</td>
<td>47%</td>
<td>17%</td>
<td>6%</td>
<td>25%</td>
<td>2.25</td>
<td>1.42</td>
</tr>
<tr>
<td>d</td>
<td>The relationship between use of teaching aid and quality of education is null</td>
<td>4%</td>
<td>4%</td>
<td>6%</td>
<td>36%</td>
<td>2.14</td>
<td>1.22</td>
</tr>
<tr>
<td>e</td>
<td>The importance of Instructional Materials can be substituted for by hard work and determination to achieve high performance</td>
<td>78%</td>
<td>17%</td>
<td>6%</td>
<td>0%</td>
<td>1.28</td>
<td>0.57</td>
</tr>
</tbody>
</table>
From table 4.18, the study found that instructional materials affect quality of education. The study found from 98% of the residents that availability and use of teaching aid in a classroom affects quality of education in schools, 83% indicated that availability of teaching aids in classrooms affects the quality of education among the pupils, while 47% strongly agreed that availability of library and other learning resources enhance the quality of education in primary schools. However, 78% of the respondents still believed that lack of library resources do not necessarily affect the quality of education as willing pupil can perform even when there is no library to study.

4.7 Physical Facilities / Infrastructure

Table 4.19 shows responses on forms of classrooms structures in public primary schools.

Table 4.19 Forms of Classrooms (Structure)

<table>
<thead>
<tr>
<th>Form of classrooms (structure)</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent</td>
<td>138</td>
<td>82</td>
</tr>
<tr>
<td>Semi-permanent</td>
<td>29</td>
<td>17</td>
</tr>
<tr>
<td>temporary</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The analysis found that most of the classrooms are permanent as was presented by 82% of the respondents while semi-permanent classrooms were said to be less as indicated by 17% of the respondents. The study found that temporary classrooms were fewer as presented by 1% (0.6%) of the respondents. The study indicated that most of the public government primary schools had permanent structures. However, from observation it was established that most of the classroom were small in size compared to pupils accommodated in them. Equally, some were dilapidated and lacked good windows or doors for conducive learning environment.
Table 4.20 shows responses on classrooms level of congestions.

### Table 4.20 Classroom Statuses (Congestion)

<table>
<thead>
<tr>
<th>Status of Classrooms (congestion)</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very congested</td>
<td>57</td>
<td>34</td>
</tr>
<tr>
<td>Congested</td>
<td>74</td>
<td>44</td>
</tr>
<tr>
<td>Not congested</td>
<td>37</td>
<td>23</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>168</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

According to table 4.20, the study found that majority of schools had congested classrooms. The biggest number of respondents, 44% indicated that most of the schools have congested classrooms, 34% indicated that public primary schools in Mombasa County have very congested classrooms and 23% of the respondents indicated that schools in Mombasa County do not have congested classrooms. According to the statistics and analysis, it can be confirmed that public primary schools are congested in Mombasa County and this is due to high number of enrolment owing to free primary education.

The analysis further indicated that increased number of enrolment in the public primary schools result to poor quality of education through defying standard quality benchmark. For example, according to UNESCO, the minimum pupil or student classroom space should be 1.5 square meters per pupil with one-seater desk, which would translate to 67.5 square meters for a room expected to hold 45 students.

Table 4.21 shows responses on whether availability and condition of school infrastructure affects quality of education.

### Table 4.21 Whether availability and condition of physical facilities/infrastructure affects quality education

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>142</td>
<td>84.5</td>
</tr>
<tr>
<td>No</td>
<td>26</td>
<td>15.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>168</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

54
According to table 4.21, availability and condition of physical infrastructure affects quality of education in Kenya. It can be confirmed that 85% of the respondents believed that condition and availability of physical infrastructure contributes greatly to quality of education. The study further found that 15% of the respondents did not find availability and condition of physical infrastructure as a factor that can affect the quality of education in public primary schools. Judging from the high number of responses it can be confirmed that availability and condition of physical infrastructure is vital to delivery of quality education. To ensure improved physical infrastructure, the government of Kenya has been engaged intensively in developing various infrastructure in the public primary schools (Government of Kenya, 2000). The Ministry of Education has set the minimum standards for the provision of toilets as part of the school sanitation facilities: the minimum number of toilets required in a school is 4 for the first 30 pupils and thereafter a ratio of 25:1 and 30:1 applies for girls and boys, respectively.

Table 4.22 shows responses on rate of effects of various school physical facilities on quality of education.

**Table 4.22 Rate of effects of various Physical facilities/infrastructure on quality of education**

<table>
<thead>
<tr>
<th>Status of classrooms contribute to quality of education offered in schools</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>75%</td>
<td>25%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>1.25</td>
<td>0.44</td>
</tr>
<tr>
<td>b</td>
<td>69%</td>
<td>31%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>1.31</td>
<td>0.47</td>
</tr>
<tr>
<td>c</td>
<td>61%</td>
<td>33%</td>
<td>3%</td>
<td>3%</td>
<td>0%</td>
<td>1.47</td>
<td>0.70</td>
</tr>
<tr>
<td>d</td>
<td>47%</td>
<td>22%</td>
<td>28%</td>
<td>0%</td>
<td>3%</td>
<td>1.89</td>
<td>1.01</td>
</tr>
</tbody>
</table>
The study found that physical facility availability affect quality of education. It was found that status of the classrooms contribute to the quality of the education offered in the schools. According to the analysis, it was found that 75% of the respondents believed that the quality of and status of the classroom in which pupils learn, determines the quality of education. The study indicated that there is a big difference when pupil learns in a temporary structure with winds blowing everywhere as compared to pupil who study in a quiet environment with a permanent structure for a classroom. The analysis further found that 69% of the respondents believed that pupil classroom ratio affect the quality of education.

The study further indicated that pupil toilet ratio affected quality of education with 61% of the respondents affirming it. 47% of the respondents believed that availability of desks and chairs affects pupils comfort, hence affect quality of education.

4.8 Correlation Results’

Table 4.23 shows correlation between dependent and independent variables and between independent variables themselves.

Table 4.23 Correlations

<table>
<thead>
<tr>
<th></th>
<th>Quality of education in public primary schools</th>
<th>Pupil Enrolment</th>
<th>Teacher Pupil Ratio</th>
<th>Instructional Materials Adequacy of School Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>Quality of education in public primary schools</td>
<td>1.000</td>
<td>.384</td>
<td>.553</td>
</tr>
<tr>
<td></td>
<td>Pupil Enrolment</td>
<td>.384</td>
<td>1.000</td>
<td>.795</td>
</tr>
<tr>
<td></td>
<td>Teacher Pupil Ratio</td>
<td>.553</td>
<td>.795</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>Instructional Materials Adequacy of School Facilities</td>
<td>.064</td>
<td>.593</td>
<td>.471</td>
</tr>
<tr>
<td></td>
<td>Adequacy of School Facilities</td>
<td>-.251</td>
<td>-.175</td>
<td>-.139</td>
</tr>
</tbody>
</table>
The study also analyzed the correlation between independent variables and dependent variable. It also sort to check the correlation among the independent variables themselves. From the above table, it is evident that there is positive correlation between Quality of education in Public primary schools and the independent variables such as Pupil Enrolment (0.384), Teacher Pupil Ratio (0.553) and Instructional Materials (0.064). This implies that an improvement in these variables will be associated with significant increase in the levels of Quality of education in public primary schools. There is however a negative correlation for independent variable; adequacy of School Facilities (-0.251). Despite the relevance of physical facilities on the learning environment, the relationship is not directly quantifiable. This indicates that an improvement in the availability or adequacy of school facilities my not necessarily be associated with an improvement in the levels of quality of education in public primary schools. It can also be explained from the view that a correlation is not always causation.

### 4.9 Results of Hypothesis Testing

SPSS Linear regression analysis was conducted to test the hypothesis.

**Hypothesis number one:**

\[ H_0. \] There is no relationship between implementation of free primary education policy and pupil enrolment and quality of education in public primary schools in Mombasa County Kenya.

Data obtained through question 13 of the questionnaire (Table 4.9), regarding whether FPE policy has impacted on pupil enrolment and educational quality was used to conduct linear regression analysis for the 1st hypothesis.

Table 4.24 shows Analysis of variance for the first hypothesis

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>4.723</td>
<td>1</td>
<td>4.723</td>
<td>28.751</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>27.271</td>
<td>166</td>
<td>.164</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>31.994</td>
<td>167</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 57 |
a. Dependent Variable: Quality of education in public primary schools

b. Predictors: (Constant), Enrolment

From the analysis in table 4.24, a Probability value of 0.000 was obtained. This value is less than 0.05; therefore we reject the null hypothesis and adopt the alternative hypothesis.

**Hypothesis number two:**

**H$_{0}$**. There is no relationship between implementation of free primary education policy and Low teacher pupil ratio and quality of education in public primary schools in Mombasa County Kenya

Data obtained from question number 17 of the questionnaire (Table 4.12), on whether FPE has impacted on pupil teacher ratio and affected quality of education was used to conduct linear regression analysis for the second hypothesis.

Table 4.25 shows Analysis of variance for the second hypothesis

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>9.790</td>
<td>1</td>
<td>9.790</td>
<td>73.192</td>
<td>.000$^b$</td>
</tr>
<tr>
<td>Residual</td>
<td>22.204</td>
<td>166</td>
<td>.134</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>31.994</td>
<td>167</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Quality of education in public primary schools

b. Predictors: (Constant), Pupil-Teacher Ratio

From the analysis in table 4.25, a probability value of 0.000 was obtained. This value is less than 0.05; therefore we reject the null hypothesis and accept the alternative hypothesis.
Hypothesis number three:

H₃. There is no relationship between implementation of free primary education policy and provision of instructional materials and quality of education in public primary schools in Mombasa County Kenya

Data from obtained from question 24 of the questionnaire (Table 4.17), on whether FPE policy has impacted on instructional material adequacy and affected quality of primary education was used to conduct linear regression analysis for the third hypothesis.

Table 4.26 shows Analysis of variance for the third hypothesis

Table 4.26 ANOVA for the third hypothesis.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>.130</td>
<td>1</td>
<td>.130</td>
<td>.675</td>
<td>.413b</td>
</tr>
<tr>
<td>Residual</td>
<td>31.865</td>
<td>166</td>
<td>.192</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>31.994</td>
<td>167</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Quality of education in public primary schools

b. Predictors: (Constant), Instructional Materials

From the analysis in table 4.26, a p Value of 0.413 was obtained, which was higher than Alpha value of 0.05, therefore we retain the null hypothesis.

Hypothesis number four:

H₄. There is no relationship between implementation of free primary education policy and adequacy of school physical facilities and quality of education in public primary schools in Mombasa County Kenya

Data obtained from question 30 of the questionnaire (Table 4.21), regarding whether FPE policy has impacted physical facilities availability and adequacy and its effect on
quality of education was used to conduct linear regression analysis for the fourth hypothesis.

Table 4.27 shows Analysis of variance for the fourth hypothesis.

**Table 4.27 ANOVA for the fourth hypothesis**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>2.015</td>
<td>1</td>
<td>2.015</td>
<td>11.158</td>
<td>.001b</td>
</tr>
<tr>
<td>Residual</td>
<td>29.979</td>
<td>166</td>
<td>.181</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>31.994</td>
<td>167</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Quality of education in public primary schools

b. Predictors: (Constant), Physical Facilities

From the analysis in table 4.27, a p Value of 0.001 was obtained. This value is less than 0.05; therefore we reject the null hypothesis and accept the alternative hypothesis.
CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction
The purpose of this study was to evaluate the free primary education policy and its impact on quality of education in public primary schools in Mombasa County Kenya. The study explored the effects of Pupil Enrolment, Teacher Pupil Ratio, Instructional Materials availability and adequacy of School Facilities on quality of education in public primary schools in Mombasa County Kenya. This chapter presents a summary of the main findings of the study, discussion, conclusions and recommendations that reflect the answers to the specific questions for possible action and suggestions for further research.

5.2 Summary of Findings
Findings of the study are discussed along respective research objectives as below.

5.2.1 How has implementation of free primary education policy impacted on pupil enrolment and quality of education in public primary schools in Mombasa County?
The study found that since the introduction of the free primary education policy, pupil enrolment in public primary schools Mombasa County has increased. According to the analysis of the study it was found that 86% of the respondents indicated that increased enrolment has resulted in congestions of pupils in classrooms leading to uncomfortable learning environment. Teachers equally find it difficult to move around the classrooms to give attention to pupils. Enrolment without age criteria has resulted in overage pupils in primary schools resulting to indiscipline among pupils. Such challenges have impacted on delivery of quality education. However, 14% of the respondents believed that high enrolment of pupils does not affect quality of education. In an analysis to understand the effect of pupil enrolment on quality of education, the study found from 75% of the respondents who affirmed that high enrolment without proper facilities compromise educational quality.
5.2.2 How has implementation of free primary education policy impacted on teacher pupil ratio and quality of education in public primary schools in Mombasa County?

Teacher Pupil Ratio has been a challenge to the current free primary education in Kenya. The study found that 91% of the respondent believed that increased number of pupils compared to low number of teachers affects quality of education. An analysis to understand how pupil teacher ratio affected syllabus coverage, found that 74% of the respondent believed that high number of pupils and low number of teachers greatly affected coverage of syllabus, classroom control and thus compromising educational quality. However, 26% of the respondents believed that low number of teacher and high number of pupil does not affect the coverage of syllabus. From the literature review, there is a set benchmark of teacher pupil ratio which should be followed when determining the number of pupil that should be handled by a single teacher. The study has found that the average teacher pupil ratio in public primary schools in Mombasa County is 1:44, which is above the recommended benchmark of 1:40. However, despite some schools having a ratio of 1:58 others due to recent trends of pupils pulling out of public primary schools some have high ratio of pupil to teachers of 1:26.

5.2.3 How has implementation of the free primary education policy impacted on provision of instructional materials and quality of education in public primary schools in Mombasa County?

Teaching requires different resources. According to the study, it was found that Instructional Materials necessary for ensuring smooth teaching and demonstration of ideas to the pupils is very important as part of quality education. Resources such class text books and equipped libraries are some of the importance resource for learning. The study sought to understand whether provision of such facilities affected quality of education. The study found from 79% of the respondents, that availability of library resource in schools affected quality of education while 21% of the respondents had a contrary opinion that that availability of library does not affect the quality of education in public primary schools. In an analysis to find out whether availability of instructional materials affect quality of education 68% of the respondents indicated
that availability of instructional materials enhances attainment of quality education in public primary schools. Nevertheless, 32% of the respondents felt that there is a very low or no relationship between availability of instructional materials and the quality of education. Meanwhile, most respondents appreciated that FPE policy has come along with provision of learning materials such as text books therefore improving learning to some extent.

5.2.4 How has implementation of the free primary education policy impacted on adequacy of school physical facilities and quality of education in public primary schools in Mombasa County?

School Physical Facilities are essential in determining quality of education in public primary schools. The study sought to understand the availability and status of school facilities in public primary schools and its impact on quality of education. The study found that 82% of the respondents indicated that their schools had permanent classroom structures, 17% of the respondents indicate they had semi permanent classroom structures while only 0.6% (1%) had temporally classroom structures. The study further sought to find out the status of classroom facilities, whether they are congested or not and whether such status of the classrooms affects the quality of education. The study found from high number of respondents, 44% that most of the schools have congested classrooms, 34% indicated that classrooms in public primary schools in Mombasa County are very congested while 23% of the respondents indicated that classrooms in public primary schools in Mombasa County are not congested.

5.3 Discussion

The discussion presented in this section highlights on implication of findings of the study. As regards the first objective of study, on weather the FPE policy has affected pupil enrolment and impacted on quality of education. The research findings corroborates with previous observations in the literature review. Statistics indicate that that Primary school enrolment increased from about 5.9 million in 2002 to about 7.2 million pupils by 2004, resulting in a gross enrolment rate of 104% compared with 87.6% in 2002 (MOE, Education Statistical Booklet 2003-2007). The national primary Gross enrolment rate (GER) was 114.7% in 2007 (116.9% for boys and 112.4% for girls). The national primary school Net Enrolment Rate (NER) was 92%
in 2007. Further, it is projected that public primary school enrolment will increase from 7.5 million pupils in 2007 to 10.5 million in 2015 (School Mapping Data, MOE-2011). However, as shown in enrolment statistics in appendix V, initial high enrolments that characterised the onset of the FPE seems to have slowed down and stabilization has been realised. Some head teachers interviewed attributed recent reduction in enrolment to persistent low academic performances of public primary schools with advent the of FPE policy. Some parents have opted to transfer their children to private schools.

According to Ohba (2009), the increase in enrolment as a result of FPE had huge consequences for schools. From 2003 to 2008, the population of pupils attending primary school expanded by an additional 2.3 million pupils, a national increase of 39%, this included pupil of different ages in the same classrooms bringing about a bigger challenge of mental coordination, psychological blend and also humiliation by much older pupils in classes with pupils of younger age. The high number of enrolment has put huge strains on the quality of education in schools. The influx of students created a massive teacher shortage, as the number of pupils increased, the number of teachers did not.

As regards objective number two of the study, the study confirms that, indeed the FPE has affected pupil teacher ratio and impacted on quality of education. It corroborates with a study by Boy, (2006) who indicated that over enrolment has caused poor performance in public primary schools in Kenya. The reality of teachers trying to teach over 100 pupils has become too common in public schools and has raised concern about academic standards and therefore questions on the effectiveness of public schools.

Further, increased number of pupils and low number of teachers has led to violation of the desired pupil teacher ratio. This was as clearly highlighted by Okwach & George, (1997) who indicated that in some schools, the teacher pupil ratio was 1:70 which was far beyond the recommended maximum rate of 1:40. Such a high ratio has got its own challenges. Teachers find it impossible to pay attention to all learners, especially the slow ones. They were not able to give adequate assignments to the pupils, as they could not cope with the marking and teaching workload.
Teacher pupil interaction is minimal in a big class as teachers can only move along with brighter pupils leaving out slow learners. The demerits of having a bigger class size are evident where teachers are faced with larger workloads. It was also noted that teachers were giving fewer assignment than before to avoid huge work load (UNESCO, 2005).

According to Alubisia, (2005) teacher student ratio in the modern free public primary schools is a crisis that was either not anticipated and not planned or was over looked by the free primary education planning commission. Influx of pupils in any learning institution should have also meant increased in number of teachers.

On the third objective of study concerning FPE impact on provision and adequacy of instructional materials and its effect on quality of education, the study confirms that indeed there is a relationship. The relevance of instructional materials in delivery of the curriculum cannot be over emphasized. To some extent, this agrees with findings in a study by Arenstrop, (2004); that instructional materials have an underlying instructional philosophy, approach, method, and content, including both linguistic and cultural information. Such materials help pupils understand areas of their study with much more ease than only being taught in the class.

The study findings agrees with Sifuna (2003), who states that provision of instructional materials including text books is identified as one of key achievement of the FPE programme, particularly through reducing the cost burden of education on parents through availability of study centres or libraries in schools thus leading to one improvement towards quality education.

On the fourth objective, regarding FPE policy impact on Physical facilities availability and adequacy and its impact on quality of education, the study found that increased enrolment has made available school infrastructure not adequate and thus compromising on quality of education. Such facilities include classrooms and toilets among others wich require to meet some stipulated standard ratio. This finding agrees with the study by (Too, 2005) that classrooms that were built for 30 students to sit comfortably in, are now packed with three times the number of students. The shortage of desks forces two or sometimes three students to squeeze onto a small bench. The learning environment has become uncomfortable, encouraging students to become
distracted. A photograph in appendix XI confirms the situation in public primary schools in Mombasa County.

Alubisia, (2005) also confirms that lack of physical facilities in public schools remains a major impeding factor to the achievement of overall effectiveness in public schools.

5.4 Conclusions
Based on the findings, the study concluded that the free primary education policy has succeeded in increasing access to primary education which is one of the millennium development goals. The FPE policy has enabled many poor pupils who would otherwise have been locked out of accessing basic education, which is viewed as a basic human right under the UDHR of 1948. It is also important to note that, the policy has to some extent succeeded in provision of instructional materials such as text books.

However, the increase in access to primary education which has been termed as a major success of the FPE policy has turned out to be its own undoing. With increased access came myriads of challenges arising from unmet quality benchmarks. Among those challenges discussed in this study include; pupil teacher ratio, pupil classroom ratio, pupil text book ratio and adequacy and status of school infrastructure. There are certain international guidelines on educational quality benchmarks that are set by bodies such as UNESCO as well as the Kenya’s Ministry of education. If such quality benchmarks are not adhered to then quality of education stands compromised.

Further, most school heads interviewed confirmed that the funds allocated to them were not sufficient to meet the school needs. Since inception in the year 2003, the FPE programme had allocated Kshs 1020 per child per year and that amount has never been reviewed upwards. The school SMC’s are forced to levy additional fees on pupils to supplement the funds therefore beating the essence of the FPE policy.
5.5 Recommendations

From findings of the study the following recommendations are made;

i. That there should be clear enrolment criteria for pupils in standard one. This should bear in mind age factor in admission so as to avoid over age pupils or adults enrolling with young pupils.

ii. Public primary schools should adhere to the UNESCO pupil teacher ratio of 1:40 in all schools. The government needs to recruit more qualified teachers to meet the short falls observed by the study. The teachers should be well remunerated to sustain their motivation. Meanwhile, staff rationalization may be done by transferring teachers from schools with more teachers to those with extreme shortages.

iii. The study recommends appropriate pupil classroom ratio of 1:40 to avoid over crowding and congestion in classrooms. The standards of the classroom size should be as per approval by the Ministry of education. The classrooms should be made up of permanent structures with appropriate ventilations to create a favourable learning environment for pupils.

iv. The Government should allocate sufficient financial resources to purchase adequate and recommended instructional materials such as text books and other teaching aids. The funds should be released on timely basis to facilitate appropriate planning by school managements.

v. The government should put up additional modern physical infrastructures such as classrooms, toilet facilities, and libraries to meet the needs of more pupils enrolled in schools. Such facilities school should be according to set standards and benchmarks.

vi. Parents should be encouraged to take more proactive roles in matters regarding their children education.

5.6 Suggestions for Further Research

Based on the findings and recommendations, of the study, the researcher suggests the following studies to be carried out;

i. Due to resource and time constraints the researcher limited his study on FPE policy impact on quality of education in public primary schools to Mombasa County; similar studies may be conducted in public primary schools in other
counties across the country so as to compare the findings. Other variables affecting educational quality may also be factored into such studies.

ii. High ratio of female to male teachers in public primary schools in Mombasa County and its effect on educational quality.

iii. A study on public primary schools transition rate in Mombasa County since inception of the FPE policy.

iv. Partnership and support from other agencies such as Non Governmental Organizations should be encouraged to supplement government’s effort towards the FPE policy. Transparency and accountability in the Ministry of Education and public primary schools should be enhanced in order to boost private sponsors/donors confidence.

v. Trends in Academic performance in public primary schools since inception of FPE policy.
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APPENDIX I: LETTER OF TRANSMITTAL

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University of Nairobi
School of Continuing and Distance Education
P.O. Box 83732 - 80100.
Mombasa, Kenya.
Cell phone number: 0722614791
Email: Tutane2002@yahoo.com

Dear Respondent,

RE: RESEARCH QUESTIONNAIRE

I am a postgraduate student at the University of Nairobi pursuing a Master of Arts degree in Project Planning and Management. As a requirement of my study, I am undertaking a research study on ‘An evaluation of free primary education policy and its impact on quality of education in public primary schools in Mombasa County, Kenya’. The success of this study will largely depend on your willingness and cooperation to provide me with the required information to the best of your ability and understanding.

I humbly request you to respond to the attached questionnaire as honestly as possible and to the best of your knowledge. The attached questionnaire is specifically meant for the purpose of this study and all responses will be treated with absolute confidentiality and anonymity.

Kindly, note that no name will be appended on any of the questionnaires.

Thank you

Yours faithfully,

Abdirahman Mohamed Abdullahi
APPENDIX II: QUESTIONNAIRE
AN EVALUATION OF THE FREE PRIMARY EDUCATION POLICY AND ITS EFFECT ON QUALITY OF EDUCATION IN PUBLIC PRIMARY SCHOOLS IN MOMBASA COUNTY, KENYA.

INTRODUCTION
You have been selected to participate in the study on an evaluation of the free primary education policy and its effect on quality of education in public primary schools in Mombasa County Kenya. You are requested to respond to each question thoughtfully and truthfully. There are no wrong or right answers (Your answer is the right answer). All responses will be treated with utmost confidentiality and for the purpose of this study alone. Please do not write your name anywhere on this questionnaire.

SECTION A
RESPONDENT’S BACKGROUND
Respond by putting a tick (✓) in the box next to your correct answer.

1 Gender
   Male [ ]
   Female [ ]

2. Age (in years)
   Below 30 [ ]
   30 – 39 [ ]
   40 – 49 [ ]
   50 and Above [ ]

3. What is your Highest Professional Qualification?
   Masters [ ]
   Degree [ ]
   Diploma [ ]
   Secondary School [ ]
   Others (specify) [ ]

4. What is your Job Position in this institutional set up?
   Head Teacher [ ]
   Deputy Head Teacher [ ]
   Teacher [ ]
4. Who is your employer?
   TSC [ ]
   Other (specify) [ ]

6. What subjects do you teach?
   ...........................................................................................................................................

7. How many years of teaching experience do you have?
   0-4 years [ ]
   5-9 years [ ]
   Over 10 years [ ]

SECTION B
PART 1: ENROLMENT

8. What is the name of your school?
   ...........................................................................................................................................

9. Which class do you head? (Please indicate between classes 1-8 and specify the stream or if none specify)
   ...........................................................................................................................................

10. How many pupils are enrolled in your class?
    ...........................................................................................................................................

11. What is the age range between the youngest and the oldest pupil in your class?
    ...........................................................................................................................................

12. Does age disparity in class affect pupil discipline?
    Yes [ ]
    No [ ]
    Explain
    ...........................................................................................................................................
13. Does the number of pupils enrolled in a school affect quality of education in public primary schools in Mombasa County?

Yes [ ]   No [ ]

If yes, explain
.................................................................................................................................
.................................................................................................................................
.................................................................................................................................
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14. To what extent would you rate the effects of the following enrolment factors on quality of education in public primary schools in Mombasa County?

<table>
<thead>
<tr>
<th>Degree of effects Key: 1 - Very High; 2 – High; 3 – Fair; 4 – Low; 5 - Very Low;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrolment factors on quality of education in public primary schools in Mombasa County</td>
</tr>
<tr>
<td>To what extent does the number of pupils in a classroom affect the quality of education</td>
</tr>
<tr>
<td>How would you rate the effect of pupil age disparity in class on quality of education</td>
</tr>
</tbody>
</table>

PART II: PUPIL TEACHER RATIO

15. How many pupils are enrolled in your school?

Boys [ ]

Girls [ ]

16. How many teacher colleagues do you work with in your school?

Male [ ]

Female [ ]

17. Pupil Teacher Ratio affect quality of education in public primary schools in Mombasa County?

True [ ]   False [ ]
18. Does Pupil Teacher ratio affects syllabus coverage in schools?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

19. Does Pupil Teacher ratio affect classroom control?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

20. How would you rate the effects of the following factors on quality of education in public primary schools in Mombasa County?

Degree of effects Key: 1 - Very High; 2 – High; 3 – Fair; 4 – Low; 5 - Very Low;

<table>
<thead>
<tr>
<th>Quality of education in public primary schools in Mombasa County</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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</thead>
<tbody>
<tr>
<td>To what extent does teacher workload affect quality of education</td>
<td></td>
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<tr>
<td>How would you rate the effect of syllabus coverage on quality of education delivered?</td>
<td></td>
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<tr>
<td>To what extent does classroom control affect quality of education</td>
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</tbody>
</table>

**PART III: INSTRUCTIONAL MATERIALS**

21. What Instructional Materials do you use for your classroom instructions?

| Explain. |
|----------------------------------|---|---|---|---|---|
|                                                                                           |   |   |   |   |   |
|                                                                                           |   |   |   |   |   |
|                                                                                           |   |   |   |   |   |
|                                                                                           |   |   |   |   |   |
|                                                                                           |   |   |   |   |   |

79
22. How many pupils share a single Text book in your subject area? (Please specify ratio)
   English; 1: ........
   Kiswahili; 1: ........
   Mathematics 1: ........
   Science 1: ........
   Social Studies 1: ........
   Others (Specify) 1: ........

23. Do you have library services in your school?
   Yes [ ] No [ ]

24. Does Instructional Material availability affect quality of education in public primary schools in Mombasa County?
   Yes [ ] No [ ]
   Explain
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………

25. How would you agree with the following statements in relation to Instructional Material availability and their effects on quality of education in public primary schools in Mombasa County?

   Degree of Effects Key: 1 – Strongly Agree; 2 – Agree; 3 – Moderate; 4 – Disagree; 5 – Strongly Disagree;

<table>
<thead>
<tr>
<th>Instructional Materials effect on quality of education</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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</thead>
<tbody>
<tr>
<td>Textbook pupil ratio affects quality of education</td>
<td></td>
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<tr>
<td>offered in schools</td>
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<tr>
<td>Availability and use of teaching aid in a classroom</td>
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<tr>
<td>affects the quality of education in schools</td>
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<tr>
<td>Libraries and resource centres play a key role in</td>
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<td>determining the quality of education in primary</td>
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<tr>
<td>schools</td>
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<td></td>
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<tr>
<td>The relationship between use of teaching aid and</td>
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<td></td>
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</tr>
<tr>
<td>quality of education is null</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The importance of Instructional Materials can be</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>substituted for by hard work and determination to</td>
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<tr>
<td>achieve high performance</td>
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</tbody>
</table>
PART IV: PHYSICAL FACILITIES/INFRASTRUCTURE

26. What form of structure is your Classroom?

Temporary [ ] Permanent [ ] Semi-permanent [ ] No structure [ ]

27. What is the status of your classroom (Capacity)?

Very congested [ ] Congested [ ] Not congested [ ] No classroom [ ]

28. What is the current number of toilet facilities for boys in your school?

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

29. What is the current number of toilet facilities for Girls in your school?

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

30. Does availability and condition of Physical Infrastructure affect quality of education in public primary schools in Mombasa County?

Yes [ ] No [ ]

If yes explain
........................................................................................................................
........................................................................................................................

31. What response would you give to the following statements concerning Physical Infrastructure and their effects on quality of education in public primary schools in Mombasa County?

**Degree of Effects Key:** 1 – Strongly Agree; 2 – Agree; 3 – Moderate; 4 – Disagree; 5 – Strongly Disagree;

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status of classrooms contribute to quality of education offered in schools</td>
<td></td>
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<tr>
<td>Pupil classroom ratio affects quality of education in schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Pupil toilet ratio affects the quality of education in schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Availability of desks and chairs affects pupil comfort, hence quality of education</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
32. What is your opinion on FPE policy and its effect on quality of education in public primary schools in Mombasa County Kenya?

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

33. What necessary strategies would you suggest to improve FPE policy and quality of education in public primary schools in Mombasa County Kenya?

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

Thank you for your cooperation and God bless
APPENDIX III: INTERVIEW SCHEDULE FOR HEAD TEACHERS
THE FREE PRIMARY EDUCATION POLICY AND ITS EFFECT ON
QUALITY OF EDUCATION IN PUBLIC PRIMARY SCHOOLS IN
MOMBASA COUNTY, KENYA

SECTION A
1. Name of school……………………….. Location (Constituency)……………………

2. Gender ……………………. Age……………… … (Optional)

3. Academic qualification …………………………………………………

4. How many years have you taught in this school? ……………………………

SECTION B

PART I: ENROLMENT

5. What is the number of pupils in your primary school?
   a) Male ……………………………
   b) Female ……………………………

5. Do you consider age limit in admission to class one?
   Yes [ ]
   No [ ]

7. What is the age difference between the youngest and the oldest pupil in your
   school? …………………………………………………………………………..

8. Does age difference contribute to indiscipline in
   school?………………………………………………………………………………
PART II: PUPIL TEACHER RATIO

9. What is the number of teachers in your school?
   a) Male _____________________
   b) Female ___________________

10. How would you rate Teacher pupil ratio in your school after implementation of
    the free primary education policy?
    ......................................................................................................................
    ......................................................................................................................
    ......................................................................................................................

11. Does Pupil teacher ratio affect quality of education in your school? Please explain
    ......................................................................................................................
    ......................................................................................................................
    ......................................................................................................................

PART III: INSTRUCTIONAL MATERIALS

12. What instructional materials do you use in your school?
    ......................................................................................................................
    ......................................................................................................................
    ......................................................................................................................

13. Are instructional materials in your school adequate?
    Yes [    ]
    No [    ]

14. Does provision of instructional materials affect quality of education in your
    school?
    Yes [    ]
    No [    ]
PART IV: PHYSICAL FACILITIES

15. Are physical facilities in your school adequate?

Classrooms  Yes [    ]

No  [    ]

Toilets  Yes [    ]

No  [    ]

16. What is the average number of pupils per class in your school? ..........................................................

17. Does adequacy of physical facilities affect quality of education in your school?

Yes  [    ]

No  [    ]

18. What is your opinion on the free primary education policy and its impact on quality of education in public primary schools in Mombasa county?

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

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

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

Thank you and God bless you.
APPENDIX IV: OBSERVATION SCHEDULE

Name of School

Constituency

PHYSICAL FACILITIES

Classrooms

Number of classrooms

Condition of Classrooms (structure, status)

Toilets

Number of toilets: Boys [ ]

Girls [ ]

Condition of toilets

INSTRUCTIONAL MATERIALS

Availability of required text books

Availability of libraries and if equipped with required books
##APPENDIX V; SCHOOL ENROLMENT & KCPE MEAN SCORES

###SCHOOL ENROLMENT

<table>
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<tr>
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<tbody>
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###KCPE MEAN SCORE

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APPENDIX VI: LETTER OF INTRODUCTION

UNIVERSITY OF NAIROBI
COLLEGE OF EDUCATION AND EXTERNAL STUDIES
SCHOOL OF CONTINUING AND DISTANCE EDUCATION
DEPARTMENT OF EXTRA-MURAL STUDIES

Your Ref:

Off Moi Avenue
Uni Plaza Building
Mombasa Campus
P.O. Box 83732-80100
MOMBASA, KENYA

Telephone: Mombasa 0202026100

28th March, 2013.

TO WHOM IT MAY CONCERN

RE: DATA COLLECTION

This is to introduce ABDIRAHMAN MOHAMED ABDULLAHI; student Registration Number L50/70313/2011 is pursuing a MASTERS OF ARTS COURSE IN PROJECT PLANNING AND MANAGEMENT at the School of Continuing and Distance Education of the University of Nairobi.

As part of his course, he is required to prepare a research project. He is therefore collecting data which is related to his research topic: AN EVALUATION OF THE FREE PRIMARY EDUCATION POLICY AND ITS EFFECT ON THE QUALITY OF EDUCATION IN PUBLIC PRIMARY SCHOOLS IN MOMBASA COUNTY; KENYA.

The information he is gathering is purely for academic purposes and will be treated with utmost confidentiality.

Any assistance extended to him will be highly appreciated.

Regards,

[Signature]

JOHNBOCISO M. KISIMBII
RESIDENT LECTURER – EXTRA MURAL CENTRE
MOMBASA CAMPUS
APPENDIX VII: RESEARCH AUTHORIZATION LETTER

MINISTRY OF EDUCATION

Telegram: “SCHOOLING”,
Mombasa
Telephone: Mombasa 2315327 / 2230052
When replying please quote

COUNTY DIRECTOR OF EDUCATION
MOMBASA COUNTY
P. O. BOX 90204
MOMBASA

Ref. No. MC/ED/GEN/23/5

3rd April, 2013

All Headteachers,
Mombasa County Primary Schools,
MOMBASA

RESEARCH ON THE FREE PRIMARY EDUCATION POLICY

Authority has been granted to Mr. Abdirahman Mohamed Abdullahi, a student of Masters of Arts Course in Project Planning and Management at the University of Nairobi, Mombasa Campus to carry out research in our Primary Schools in the Mombasa County. The topic is: "An Evaluation of the Free Primary Education Policy and Its Effect on the Quality of Education in Public Primary Schools".

He is advised to carry out the research with the professionalism that it deserves. On completion of the research, he is expected to submit a copy of the research report to our office.

Kindly accord him the necessary assistance.

Abdikadir M. Kike
COUNTY DIRECTOR OF EDUCATION
MOMBASA COUNTY

cc.

All District Education Officers,
Mombasa County,
MOMBASA

Resident Lecturer,
Extra Mural Centre,
MOMBASA CAMPUS

Mr. Abdirahman Mohamed Abdullahi
MOMBASA
## APPENDIX VIII: WORK PLAN

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<th>ACTIVITY</th>
<th>PERIOD</th>
</tr>
</thead>
<tbody>
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<td>Writing research proposal and presentation</td>
<td>December 2012 - May 2013</td>
</tr>
<tr>
<td>Piloting instruments</td>
<td>May 2013</td>
</tr>
<tr>
<td>Data collection in the field</td>
<td>June 2013</td>
</tr>
<tr>
<td>Data analysis and report writing</td>
<td>June 2013</td>
</tr>
<tr>
<td>Presentation of draft report</td>
<td>July 2013</td>
</tr>
<tr>
<td>Submission of final report</td>
<td>July 2013</td>
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APPENDIX IX: BUDGET ESTIMATE (KSHS)

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<th>Item</th>
<th>Cost</th>
</tr>
</thead>
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</tr>
<tr>
<td>Internet costs</td>
<td>5000</td>
</tr>
<tr>
<td>Travelling expenses</td>
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<tr>
<td>Writing materials</td>
<td>4000</td>
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<tr>
<td>Draft report typing</td>
<td>5000</td>
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<tr>
<td>Report writing expenses and copies</td>
<td>16000</td>
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<tr>
<td>Report binding</td>
<td>4000</td>
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<tr>
<td><strong>Total Cost</strong></td>
<td><strong>59000</strong></td>
</tr>
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APPENDIX X: LIST OF PRIMARY SCHOOLS USED FOR THE RESEARCH

1. Kengeleni
2. Khadija
3. Kikowani
4. Majengo
5. Makupa
6. Mikindani
7. Miritini
8. Mtongwe
9. Mtopanga
10. Shikaadabu
APPENDIX XI: PHOTOS

Old dilapidated toilets at Miritini primary school

Modern toilet facilities at Mikindani primary school built by sponsors
Congested classroom at Mtopanga primary school

Modern classrooms at Mikindani primary school built by sponsors
Old dilapidated classrooms at Miritini primary