THE INFLUENCE OF FREE PRIMARY EDUCATION ON TEACHER EFFECTIVENESS IN KURIA EAST CONSTITUENCY

BY

BHOKE CHACHA

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DECLARATION

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

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BhokeChacha

Reg No: C50/75954/2009

Supervisor's Approval

This research Project has been Submitted for Examination with my approval as a University Supervisor.

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Dr. A. Zani

DEDICATION

I dedicate this project to my family. A special thank you to my loving parents, Rhobi and Chacha who have been there guiding me and encouraging me through every step of this journey. My sister Truu and my brothers Mwita and Mataro who have supported me through the process.

I also dedicate this work with profound gratitude to my dear husband Sibuti and our wonderful daughter Ghati for their patience, love and encouragement as I undertook this research work.

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ABBREVIATIONS AND ACRONYMS

APHRC	African Population and Health Research Center
DEO	District Education Officer
EFA	Education for All
FCUBE	Free Compulsory Universal Basic Education
FPE	Free Primary Education
IMF	International Monetary Fund
IMF	International Monetary Fund
K.C.P.E	Kenya Certificate of Primary Education
KANU	Kenya African National Union
MDG	Millennium Development Goals
MOEST	Ministry of Education Science and Technology
NARC	National Rainbow Coalition
PPS	Public Primary Schools
QASO	Quality Assurance and Standards Officer
SAPs	Structural Adjustment Programs
SPSS	Statistical Package for Social Sciences
UNESCO	United Nations Educational Scientific and Cultural Organization
UPE	Universal Primary Education

ABSTRACT

In the last two decades there have been numerous initiatives aimed at ensuring that all children of school going age have access to education. Effective teaching techniques are highly dependent on the psychological well being of the teacher. Although a lot of efforts have been made in this aspect, there have been many doubts on teachers' competence and performance in meeting the challenges and needs in new government initiatives. The introduction of Free Primary Education (FPE) in 2003 is one such initiative that caught Kenya's education system completely off guard and failed to enact adequate preparations for the policy. The program brought a sharp focus on the teacher effectiveness owing to the induction of this broad concept in the educational process. This study examined the influence of FPE on teachers' effectiveness in Kuria East Constituency. The study establishes the effects of FPE on teacher's effectiveness and pupil enrolment trends before and after FPE. The study also looked at the teacher – pupil ratio within this period and its impact on teachers' effectiveness.

Stratified random sampling was used in the identification of 25 primary schools from which the head teachers and 88 teachers that were selected through random sampling participated in the study. The study employed the use of a questionnaire, an interview schedule and document analysis as the main research instruments. Quantitative data generated from these instruments was quantitatively with the aid of SPSS version 17 while content analysis used for the qualitative. The analyzed data was then summarized into frequencies and percentages and presented in tables, bar charts and figures.

Findings of the study indicate that the pupil enrolment rate in Kuria East Constituency increased by 41.8% between 2002 and 2008. Introduction of FPE resulted in overcrowding in classes leading to a high pupil - teacher ratio which average 53:1. In some of the schools the pupil-teacher ratio was as high as 77:1. This negatively affected teachers' effectiveness as the teachers were forced to result to the use of a single teaching method in order to meet the increased class sizes. From this study, the rushed introduction of FPE demoralized teachers as they were faced with an increased workload and yet there were no incentives offered for the increased workload.

In conclusion, this study finds that there was need for teacher involvement and participation in making decisions pertaining to the introduction of FPE. A mode of remuneration or offering incentives to the teachers for the increased workload should have been formulated in order to motivate the teachers. A characteristic of FPE was increased pupil enrolment and as such there was need for the government to increase the number of teachers and classrooms in order to meet the increase, thereby ensuring that teachers' effectiveness was not hampered.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Since the introduction of Free Primary Education in Kenya in 2003, a lot of studies have been published on the merit and the shortcomings of the program; but majority of these studies have dwelt on such aspects as class sizes, pupil-teacher ratio, the performance of the pupils, and insufficient school supplies. Those who have attempted to shed light on how the program can be improved have hardly attempted to show how free primary school learning has impacted on teachers' effectiveness in the overall performance of the pupils and the schools in general. Yet according to Okeke-Oti and Adaka, (2012) the teacher is fundamentally the most important person in the education matrix. It is therefore necessary that when the government talks of investment in education it also bears in mind the need to invest in teachers (Orodho,Waweru, Ndichu and Nthinguri, 2013) so that they (teachers) can perform their mandate. Unfortunately the Free Primary Education (FPE) program that came into effect in 2003 which is characterized by increased enrolment has not dampened the morale of teachers making it difficult for them to play their rightful role in the development of the country.

The economic, social and political development of any nation is founded upon education. Investment in education is a catalyst for economic growth and enhances productivity while at the same time contributing to the national and social development which helps to reduce social inequality (World Bank, 1999). According to UNESCO (2005) the level of development of a nation is directly related to the level of education of its citizens. World over, education is recognized as a basic human right and it is given special treatment in

the Human Rights Charter. In 1948 the Universal Declaration of Human Rights laid down Article 26 which stated that everyone had the right to education and that education shall be free, at least in the fundamental and elementary stages. The article further states that elementary education shall be compulsory (UNESCO, 2000).

Since achieving independence in 1963, policy initiatives from the Kenyan government have focused on the attainment of Education for All (EFA) and, in particular, Universal Primary Education (UPE). Education for all has been discussed in international forums, for example United Nations Educational Scientific and Cultural Organization (UNESCO) World Conference at Jomtien, Thailand in 1990 and its follow-up in Dakar, Senegal in 2000. The initiative has led many governments in the world to invest heavily in education.

In Malawi for instance, FPE was introduced in October 1994 following an announcement in June that year by the newly elected government that came into power after the first multi-party elections in the country. During the first year of FPE enrolment increased by seventy nine percent from 1.9 million in 1993/1994 to 3.4 million in 1994/1995. An increase of such magnitude challenged the already weak system where some schools were already having a pupil - teachers ratio of 70:1 a situation that was exacerbated by the presence of 13% unqualified teachers (Abbey, 2003).

In Ghana, the policy of FPE was at the heart of Free Compulsory Universal Basic Education (FCUBE) which started in 1996 with support from the World Bank and other international donors. Despite being enacted in 1996, FPE in Ghana did not take off until 2005. In 2005 the education strategic plan (ESP) 2003-2005 introduced capitation grant

to schools nationwide which effected FPE. As a result, the net enrollment rate at primary school level for children of age-group 6-11 years increased by 22% between 2004/5 and 2006/7 (Sifuna, Chimombo, Ampiah, and Byamugisha, 2009).

The Kenyan government has on numerous occasions in the past attempted to roll out FPE program with the first notable one being KANU's Manifesto of 1963 which was actualized by the recommendations of the Ominde Report of 1964. The idea was also featured prominently in the Sessional Paper no. 10 of 1965 on African Socialism (Ngugi, 2003). President Jomo Kenyatta in 1971 further promised free education to disadvantaged pupils living in arid and semi-arid lands and later introduced FPE to all students from standards 1-4 and capped the cost of tuition for standards 5-7 at Ksh 60 per annum in 1973 in order to promote education countrywide. This led to increased enrolment that saw over one million additional schoolchildren enroll into the education system in 1974. Primary schools were unable to handle the massive enrollment and thus imposed "building cost" levies so as to expand school facilities. Chuck (2009) states that in many cases the school levies were more expensive than what families were paying before the introduction of FPE. The costs led to massive dropouts in the following years and ultimately the Kenyatta government abolished the program.

But the government's position on primary school education levies did not last long because upon assuming power in 1978, President Daniel ArapMoi abolished all primary school fees. However, according to Oketch and Rolleston (2007) the economic recessions that the country experienced in the 1970s and 1980s made it extremely difficult for the Moi government to maintain its educational budget. Following these economic hiccups the World Bank and the International Monetary Fund (IMF) advocated for economic

adjustments in the form of Structural Adjustment Programs (SAPs) in the 1980s which among many things demanded cost-sharing in schools, making it unfavorable for many poor Kenyan families to retain children at school. Consequently the school system witnessed declining enrolments in the 1990s which fell from 95% in 1991 to 78% in 2001; by 2002 the completion rates for primary schools stood at 50%. By this time primary schools charged between USD20 and USD350 per child per annum on school fees and a separate fee of USD30 for uniform and books, thus pushing many children from poor household out of school (Wax, 2003).

Universal Primary Education in Kenya was re-introduced in 2003 after NARC came into power through the Free Primary Education program. Since its enactment the FPE program has received commendation and criticism in equal measures. The policy has received extensive support on its enhancement of inclusion of children into the school system. From 2003 when the FPE program was initiated the school enrolment increased by 39% from 5.9 million in 2002 to 8.2 million in 2008, incorporating an additional 2.3 million Kenyans into the school system (Chuck, 2009). Primary school completion rates increased from 62.8% in 2002 to 81% in 2007. At the same time, transition rates from primary to secondary schools increased by 10% by 2007. With the introduction of FPE, more girls were able to be integrated into the education system leading to a near attainment of gender parity at the national level. Textbook ratios also improved providing every child with one textbook (UNESCO, 2005).

Nevertheless, many pundits consider the policy as one faced with many challenges because it was a political tactic rather than a genuine project to improve access to education. The introduction of FPE in 2003 caught Kenya's education system completely

off guard and there were no adequate preparations to implement the policy. The NARC government promised the free primary education before consulting education stakeholders including the Ministry of Education, District Education Officers, schools and teachers. The number of teachers was not increased to cater for the increased enrolment (Chuck, 2009). According to Chuck, the head teachers lacked any knowledge on financial management in line with the extra responsibilities that came with FPE while communication between the various stakeholders on the implementation of FPE was poor. This has greatly led to the deterioration of the quality of education (Chuck, 2009).

The Ministry of Education, Science and Technology - MoEST (2004) observed that the high influx of new pupils into schools put a lot of pressure on existing resources. While enrollment of pupils was on an upward trend, the same could not be said of teacher recruitment and as a result there was a shortage of teachers which contributed to the high pupil–teacher ratios. Due to the teacher shortage, most classes were too large to be handled by a single teacher. On average, the pupil- teacher ratio in most schools was 50:1 and over making it difficult for teachers to give individual attention to learners, thus lowering the quality of education in schools (UNESCO, 2005). In addition teachers no longer gave satisfactory assignments to the pupils because they were not able to cope with the marking and teaching workload (UNESCO, 2005). Furthermore managing large numbers of pupils which has come about as a result of the introduction of FPE program has negatively impacted on the quality of teaching and learning in schools (Wachira, Mwenda, Muthaa and Mbugua, 2011; Yieke, 2006).

1.2 Statement of the Problem

Research on FPE indicates that there were many challenges facing its implementation (Republic of Kenya, 2005). A few authors agree that free primary education (FPE) has created significant problems including overcrowded classrooms, high pupil-teacher ratio, inadequate infrastructure and lack of sanitation facilities (Itunga, 2011; Mushtaq 2008; Sifuna, 2005). The quality of instruction in primary schools is no longer satisfactory (Sang and Kipsoi, 2005). Undeniably these problems arising from FPE are likely to impact negatively on teachers' effectiveness as the working conditions are not favorable to quality teaching.

A 2005 survey on FPE program in Kenya carried out by UNESCO found out that some of the major challenges facing the free primary education initiative included increased student numbers, shortage of teachers, lack of clear guidelines on enrolment, lack of consultation with teachers and expanded roles for head teachers. The study appreciated that teachers played a pivotal role in the implementation of FPE, but it did not discuss in detail how the program has impacted on teachers' effectiveness (UNESCO, 2005).

Mwendwa (2011) states that pupil-teacher ratio has been critical in FPE implementation as it has an influence on academic performance. But the author further notes that though FPE has a positive impact on pupil enrolment by giving more pupils an opportunity to access primary education which was initially elusive, academic performance in public primary schools has been on the decline (Mwendwa, 2011). Undeniably, pupils' academic performance is one of the methods used to assess teacher performance.

Teachers are a key resource in the learning process. Makau (1986), states that teacher quality is an important variable in pupil learning. Mohit (2008) concurs stating that the most accepted criterion for measuring good teaching is the amount of pupil learning that occurs at the end of a course of study. It is important to note that inspite of the fact that teachers are viewed as determinants of pupils' achievement, they also have limited control over many other important factors that impact pupils' learning, including pupils' attitudes, study and learning skills, their readiness to learn, school environment factors and so on. This study addresses the influence of the introduction of free primary education on teachers' effectiveness in Kuria East Constituency.

1.3 Purpose of the Study

The purpose of this study was to determine the influence of free primary education on teacher effectiveness in Kuria East Constituency.

1.4 Objectives of the Study

The study focused on the following objectives:

i. To investigate the trends of pupil enrolment before and after the introduction of Free Primary Education.
ii. To find out the ratio of pupil -teacher before and after the introduction of Free Primary Education and its impact on teacher effectiveness.
iii. To examine the teaching method(s) and performance before and after the introduction of Free Primary Education
iv. To find out the performance trends in Kenya Certificate of Primary Education (K.C.P.E) before and after the introduction of Free Primary Education.

1.5 Research Questions

The study was guided by the following research questions:

i. What are the trends of pupil enrollment before and after the introduction of Free Primary Education?
ii. What was the pupil-teacher ratio before and after the introduction of Free Primary Education?
iii. What teaching methods have been employed over the years?
iv. What are the performance trends in K.C.P.E before and after the introduction of Free Primary Education?

1.6 Justification of the Study

According to Atanda, Adeyemi and Adebisi (2006) teaching is a vehicle for education and it is the responsibility of teachers to deliver quality education. The right type of attitudes, values and skills at primary school level are inculcated among learners through effective teaching. Hence the teacher is the most pivotal person in the education process (Kochhar, 2003). With education being dependant on the teacher as a professional who imparts skills, knowledge, information, and attitudes to learners; understanding teacher's effectiveness is therefore critical in any education system.

Education stakeholders in Kenya consider education as a basic need and right and consequently academic performance ranks highly on the national agenda. When addressing academic performance in primary schools, educators and policymakers focus on testing, accountability, curriculum reform and other school related concerns (Mark, 2003). However, very little attention has been given to examine how trends in school enrolment and teacher-pupil ratio have negatively influenced teachers' effectiveness on

imparting knowledge, and the kind of teaching methods that teachers have adopted as a result.

Kenya's education system does not have an internal system of monitoring learning achievements at other levels within the education cycle. In general, the most important manifestations of quality education are founded around literacy, cognitive abilities, performance, progression to higher levels of learning and examinations are generally acceptable as valid measures of achievement (Ashioya and Maiyo, 2009). Among the internal systems of monitoring learning achievements that have not been taken into consideration include teachers effectiveness based on the various factors at play within the school setting. Some of the factors at play in primary schools include enrolment of pupils, teacher-pupil ratio and the teaching methods.

Kenya aims at using the FPE policy to attain Universal Primary Education (UPE) by the year 2015. All the major stakeholders expect the implementation of the FPE program to succeed. While FPE has done well in giving opportunities to children from less privileged backgrounds to get basic education, the quality of education under FPE policy is being questioned (UNESCO, 2005). Serious challenges have interfered with the implementation of the FPE policy. As mentioned earlier, these challenges include congested classrooms, limited physical facilities and shortage of teachers, which has impacted negatively on the quality of teaching (Yieke, 2006).

While there is a lot of research on Free Primary Education in Kenya, the impact of this policy on teachers especially on their performance and efficiency has not been comprehensively explored. This study was designed to ascertain the impact of FPE on

teachers' work performance in order to recommend on how to improve their working conditions so as to raise their work output.

The outcome of this study could for instance be used by the Ministry of Education to develop in-service training programs to refresh teachers on how to deal with the new policies and curriculum changes among others. Improving the working conditions of primary school teachers could reduce their turnover; improve teacher and student performance, and the Free Primary Education program in general. The study findings will also help the Teachers Service Commission and the Ministry of Education appreciate the extent to which problems associated with Free Primary Education have affected primary school teachers' professional output. Understanding these problems would help the government find ways of preparing teachers for their profession and also help teachers deal with the pressures of teaching arising from high enrolment. School administrators and other educational stakeholders will also benefit from the findings of this study in relation to improving teachers' working conditions and well-beingthe end result being to benefit the pupils, teachers and the education system at large. Finally, the study shall avail fresh knowledge for the school administrator to address emerging challenges in the teachers' effectiveness in the course of the implementation of FPE.

1.7 Scope of the Study

The study was confined to public primary schools in Kuria East Constituency. The study laid emphasis on the pupil enrolment and the pupil-teacher ratio in the schools before and after the introduction of FPE covering the years 1998 to 2008. The study also looked at the teachers' teaching methods during the study period. The overall mean of the schools

in K.C.P.E was also established with the view of determining the schools performance trends.

1.8 Definitions of Significant Terms

Enrolment: the voluntary registration of pupils into as public school.

Pupil–Teacher Ratio: is the number of pupils who attend a school divided by the number of teachers in the school.

Free Primary Education: The government shoulders the financing of education. This applies to the public schools only.

Pupil Performance: Pupil performance is evidenced by how well pupils carry out class assignments and ultimately achieve in the exams including national examinations such as Kenya Certificate of Primary Education (K.C.P.E).

Teacher Performance: Teachers performance is defined as the act of teachers producing quality output in all aspects of teaching.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

Chapter one gave an overview of the status of the primary school teaching in Kuria East Constituency and the reasons that provoked the author to engage in the examination of the impact of the introduction of FPE on teachers' effectiveness in the constituency. This chapter presents a critical review of the relevant existing literature on FPE in Kenya and its influence on teacher effectiveness. It examines in details the themes that mainly deal with universal education, free primary education in Kenya, and characteristics of free primary education in Kenya especially on matters pertaining to pupil enrolment, pupil-teacher ratio, teaching & leaning materials, pupil assessment, teacher performance, teacher efficiency and K.C.P.E performance trends. The researcher also lays the theoretical and conceptual frameworks of the study in this chapter.

2.2 Universal Primary Education

According to UNESCO (2005) any kind of education is supposed to foster learning skills. Education is also considered to be one of the most important social institutions in modern societies. And for this reason basic education was in 1948 declared a fundamental human right by the international community (APHRC, 2007). Since then there have been several movements toward universal primary education. As such the Education for All (EFA) conference held in Jomtien, Thailand in 1990 provided a catalyst that spurred the development and implementation of EFA policy on global scale. During the conference education policymakers from all over the world reached a consensus that universal basic education could only be attained if education was made free for all school-going children

(UNESCO, 2005). Participants at the conference agreed to have a universal primary education by the year 2000 which was later moved forward to 2015 by the Dakar Framework for Action (APHRC, 2007). Other global initiatives have deemed the universal primary education as vital to world development and for this reason education for all is the number two of the fifteen Millennium Development Goals (MDGs), and it states 'Achieve universal primary education', with the specific target of ensuring that 'by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling' (APHRC, 2007).

The implementation of UPE is particularly important in Africa because as Fafunwa (2003) observes, in sub Saharan Africa, over 40 million pupils of primary school going age are unable to attend school. He attributes this problem to inept policy, poorly executed policy reforms at times, poor institutions and dysfunctional governments.

2.3 Concept of Free Primary Education in Kenya

There have been attempts to provide Free Primary Education in Kenya since independence. Since 1963, the government and the people of Kenya have devoted a lot of resources and energy to expand education facilities to enable many people to participate in Kenya's socio-economic development. In this regard the government has striven to improve the quantity and quality of education in Kenya in order to prepare people to play a significant role in national development (Eshiwani, 1993). The effort to expand educational opportunities has been reflected in the various policy documents like the Ominde Report of 1964, the Mackay Report of 1981,the Kamunge Report of 1988, the Mackay Report of 1981, and the Koech report of 1992 and all national development plans since 1963.

The introduction of Free Primary Education in Kenya in 2003 was hailed by many because it increased the number of children from poor background in the school system. This was a milestone in providing these children with basic education (Sifuna, 2005). An appraisal of the achievements of FPE in the Kenya Economic Survey of 2010 noted that the program had increased primary school enrolment by almost 50% from 5.9 Million to 8.8 Million (Itunga, 2011).

International commentators on the Kenyan scene saw this as a huge step towards the millennium education goal that seeks to ensure that by 2015 every child will have access to primary education (Fleshman, 2005). The FPE policy was heralded by international donors as a major step toward the fulfillment of the second Millennium Development Goal. The initiative was welcomed by many world leaders prompting former U.S. President Bill Clinton to state in a televised interview in 2004 that one of the leaders he would prefer to meet was President MwaiKibaki of Kenya because of the FPE initiative that made it possible for more than two million extra children to enroll in school. Clinton noted that the provision of FPE by the Kenyan Government was the greatest impact made by any leader in the world in the year 2003 (Bold, Kimenyi, Mwabu, and Sandefur, 2010).

But pundits are of the opinion that FPE program introduced in 2003 has had its own share of problems as it was not thought through by the time of introduction. They argue that the introduction of FPE in 2003 was not a development challenge per se but was done in order to fulfill an election campaign promise. Hence, one morning teachers woke up to the reality of large classes that were overcrowded with pupils who enrolled for a free primary education. Fleshman (2005) notes that teachers were not prepared for the turn of

events as they were not sure if they could accommodate the surge of the new pupils. A few authors agree that free primary education (FPE) has created significant problems like overcrowded classrooms which in turn has led to high pupil -teacher ratio, scarcity of learning materials and overworked teachers (Itunga, 2011; Mushtaq, 2008; Sifuna, 2005).

Education stakeholders are also worried about the sustainability of free primary education. They however agree that the population requires having at least basic education in order to participate in its socio-economic development of the country. But they equally agree that for free primary education to be sustained and have positive results in terms of offering quality education, the issue of the well-being of the teachers must be taken care of (Evers, Tomic and Brouwers, 2004). This includes employing more teachers to handle the large number of students. Since 2003 the employment of new teachers has not been a priority of the Teachers Service Commission (TSC) - the body responsible for employing teachers in Kenya – as it has only hired teachers to replace those retiring from the service (Oyaro, 2008). Yet some authors point that lack of enough teachers is a major obstacle to the success of free primary education in the country (Itunga 2011; Mushtaq 2008; Sifuna 2005). According to Sifuna (2005) Kenya cannot claim to be on the target of attaining the second MDG goal by 2015 if the problems of free primary education remain unaddressed.

From the analysis above it is evident that many studies have been done on the provision of universal primary education, but hardly any address the issues of quality of teaching and instruction. Most of these studies also give scanty information on whether the program is achieving the specific FPE policy goals. The Kenyan government has spent a lot of money on primary education since the inception of FPE in 2003 but no studies have

been carried out to document the necessities of teachers' effectiveness in promoting quality primary education as a basis for sustainable economic and social development of the nation. This study investigates the quality of teaching after the introduction of FPE in Kenya.

2.4 Pupil Enrolment in Free Primary Education

According to Schultz (2002) enrollment in schools represents the largest component of investment in human capital in most societies. Since the year 2000, UPE has been a goal for most countries worldwide. World Bank (1999) notes that when fees were abolished in Malawi in 1994 and in Uganda in 1996, pupil enrolment went up by 51% and 70% respectively. In 1999 Cameroon witnessed primary school enrollment increase from 88% to 105%, while in Tanzania enrollment rates from 57% to 85% in 2001 (Kenya, 2008). These statistics show that African countries have been successful at expanding pupil enrolment in education, especially at the primary school level. However they also need to invest more resources for the schools to produce all-round students and avoid addressing quantity education at the expense of quality education.

Upon coming into power in January 2003, the National Rainbow Coalition (NARC) government embarked on implementing one of its main campaign promises of providing free primary education. The aim of the FPE program was to give more opportunities to the disadvantaged school-aged children which was immediately achieved at the inception of the program as it resulted in significant enrollment increase in majority of schools (ElimuYetu Coalition, 2004). However with the introduction of FPE the national gross enrolment rate (GER) of school age children population increased from 92% in 2002 to 104% in 2003 (ElimuYetu Coalition, 2004) with more than 1.5 million children

previously out-of-school joining primary schools (Voss, Bedi, Kimalu, Manda, Nafula and Kimenyi,2004).

The FPE program has been a successful pro-poor policy in the sense that poorer districts have seen large increase in enrolment compared to the richer districts (Bold et al., 2010). This is because of the abolition of school fees that accompanied FPE which saw many out of school children enroll in the first school term in the year 2003; as previous costs charged to parents was the biggest limitation of many children to attend school (MOEST, 2004). The GER in public primary schools rose to 98.1% in 2003 climbing further to 101.5% in 2004 (Republic of Kenya, 2005). The enrollment results of some sampled districts in a study done by UNESCO in collaboration with the Ministry of Education show that there was a 25.5% increase in enrollment between 2002 and 2004 (See Table 2.1)

Table 2.1 Enrolment Trends 2002-2004

District	**Overall District Data**		
	2002	2003	2004
Kajiado	58,334	66,648	73,981
Nairobi	144,929	205,362	203,061
Mwingi	85,880	97,096	107,261
Gucha	102,145	126,545	122,197
Kisumu	46,511	51,543	55,984
Kwale	88,077	109,456	131,055
TaitaTaveta	59,168	62,827	66,855
Embu	56,175	61,814	62,337
Kericho	125,075	133,088	139,183
Total	**768,296**	**916,355**	**963,918**

UNESCO, 2005

Free Primary Education initiative of 2003 had a significant effect on enrolment nationally with the total intake to Standard 1 rising from 0.0969 million in 2002 to 1.312 million in 2003, an increase of 35% (Oketch and Somerset, 2010). This led many primary schools

to be over-crowded and as a result books and teachers were not enough. Another consequence of high enrolment was disciplinary issues especially caused by the older children. The classroom compositions changed in terms of age with many older children enrolling or coming back to school. It is noted that some of these older pupils influenced the younger ones negatively leading to increased indiscipline cases which had a negative impact on how teachers taught (Bold, et al, 2010). Due to high enrolment and congested classrooms, teachers were unable to teach well and pupils were unable to concentrate (Nkinyangi, 2005).

High enrolment has led to the quality of education going down as teachers have too much work such as handling two classes at the same time and this has impacted on their performance as teachers. This study investigated the impact of the effect of increased enrolment on teachers' efficiency in Kuria East Constituency.

2.5 The effects of Class-Size and Pupil - Teacher Ratio

By the time the NARC government introduced the FPE program there were no prior preparations for the program and as such no infrastructure was put in place to facilitate the implementation. Although the government anticipated teething problems when it rolled out the program in 2003 it was overwhelmed by the over 2 million children who enrolled in primary schools because classrooms could not be physically expanded to meet the increase (Too, 2005).

Similarly, the number of teachers did not change to meet the change in the number of pupils. In nearly all the public primary schools, teachers were few and there were no extra desks for the newly enrolled pupils. The pupil-teacher ratio rose that to date some

schools have classes with over 100 pupils against the recommended class size of 40. In many of these schools the problem of large class sizes has never been resolved to date. As a result, many parents who could afford the cost of private schools opted to transfer their children to the private schools as the quality of education offered in public schools was considered to have been compromised. To-date, most of these private schools have more children than they did before the free education. Aduda (2005) reveals that there are still some public primary schools in Kenya where pupils still sit on the floor or learn under trees. And in many schools teachers cannot master faces of all pupils in a class due to the large class sizes.

Boy (2006) blames declining academic standards and poor performance in public primary schools in Kenya on over enrolment as a result of the FPE program. Teaching over 100 pupils per class has now become common in many public primary schools Kenya and this has raised concern about academic standards and the effectiveness of these 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).

Vreede (2003) has noted that the problem of high pupil- teacher ratio is not unique to Kenya. Uganda too experienced similar problems when it introduced free primary education in 1997 and had to increase training and recruitment of teachers to meet the increased enrolment rate. In Kenya the enrolment in public primary schools increased from 5.8 million in 2002 to about 7.2 million in 2003 following the introduction of free primary education and by 2004 it stood at 7.5 million. Despite this, the number of teachers remained unchanged (MOEST, 2004). A survey by UNESCO in 2005 showed

the average pupil-teacher ratio in 162 sampled schools was 58:1, against the recommended 40:1. With such class sizes in public schools it becomes difficult for teachers to teach their lessons effectively. Compared with teachers in private primary schools who handled smaller class sizes, the ability of a teacher in public primary school to teach effectively became even more worrying (UNESCO, 2005)

Class size has been defined as the actual number of pupils taught by a teacher at a particular time (Brewer, Gamoran, Eherenberg and Willms, 2001). According to the education sector report of 2005, FPE put pressure on teachers as some class sizes increased to 100 pupils in rural areas and 120 in urban slums (Republic of Kenya, 2005).

Large class sizes lead to very little teacher-pupil interaction and teachers tend to go at the pace of bright students leaving behind the slow learners (Republic of Kenya, 2005). Even with the continued increase in pupil enrolment, there has been little change in the recruiting of new teachers to handle the large classes. Staffing levels have not kept pace with the increased enrolment which has contributed significantly to the large class sizes (Bold, et al, 2010).

2.6 Effect of Class Size on Pupil Assessment

Pupil assessment can be defined as methods used by educators to measure the learning progress throughout various stages of schooling. According to the Ministry of Education (2004) assessment is the process of determining the level of performance of a person in a particular skill or subject. The Kenya's education system is dominated by examination-oriented teaching, where passing examinations is the only benchmark for performance as there is no internal system of monitoring learning achievements through various levels

within an education cycle. In Kenya, examinations are generally acceptable as valid measures of achievement (Ashioyaand Maiyo, 2009). Apart from examinations, there are other forms of assessment such as assignments, continuous assessment tests (CATs), class debates and discussions to mention a few.

Since the introduction of FPE in public primary schools, pupil assessment especially in continuous assessment tests has stopped (Sang and Kipsoi, 2005). This possibly explains why these schools continue to perform dismally. Large classes make it impossible for teachers to administer, grade pupil's work and provide feedback on performance (Sang and Kipsoi, 2005).

Due to the lack of pupils getting enough quality assessment, the goal of FPE 'to equip pupils with quality education' continues to be threatened (UNESCO, 2005). This study investigates the challenges facing the FPE program in Kenyan public primary schools especially on matters that hinder efficient pupil assessments.

2.7 Teaching – Learning Materials

Miller and Seller (1990) state that instructional materials are vital components in learning and the intended program cannot be easily implemented without them. Instructional materials provide information and opportunities for pupils to use what they have learnt. According to research done by UNESCO in 2005, teachers affirmed that the provision of teaching and learning materials was one of the major accomplishments of the FPE program. The provision of instructional materials such as atlases, globes, chalks and reference books has improved the quality of teaching and has made the covering of syllabus easier. A study on the impact of Free Primary Education in Mwingi in 2005

reported that the quality of education had improved as a result of learning materials provided by the government (Gakuru, 2005).

However this gain has been compromised due to the high enrollment occasioned by the FPE program; the quality of learning has also gone down because of the high pupil- to-textbook ratio. Pupils are not able to efficiently use the textbooks as reference sources as they do not keep the books for long because they have to share. Furthermore, free primary education in public schools has also stretched the teaching and learning facilities as a result of high number of new pupils (Sifuna, 2005).

The FPE program has brought about some challenges that have affected the learning environment. The increased enrolment and the large class sizes that have come as a result of FPE have not been accompanied by the actual expansion of physical facilities to accommodate the surge of pupils. The issue of inadequate physical facilities featured in nearly all Kenyan schools that witnessed high enrollment in pupils as most of them did not have adequate classrooms to accommodate the extra number that enrolled under the FPE program. Many schools also did not have the physical space to erect new classrooms. The classrooms became congested leaving no space for the teacher and the pupils to move around during lessons (Kenpro, 2010). Teachers were therefore exposed to uncomfortable conditions which made it difficult for them to teach.

A good learning environment is an important aspect in achieving the goals of teaching and learning. This study investigated whether learning materials and facilities acted as a hindrance to the realization of quality teaching in Kuria East Constituency comparing the

data with others that have been generated in other areas where similar issues have been explored.

2.8 Measures of Teacher Effectiveness

According to Hill, Smith and Rowe (1993), effective schools typically exhibit strong educational leadership, high expectations of student achievement, an emphasis on basic skills, and frequent evaluation of students' progress. With this in mind, this study explored how the introduction of FPE impacted on the effectiveness of teachers in Kuria East Constituency schools.

Creemers (1994) points out that a teacher's behavior has a bearing on his or her effectiveness in the classroom. Creemers is here concerned with the efficient classroom management that yield an orderly and quiet classroom atmosphere; properly organized homework; strong teachers' influence; clear goal setting; structured subject content and ordered goals; use of advance organizers; making use of prior knowledge of students; clarity of presentation; questioning, for stimulation and checking students' understanding; immediate exercise after presentation of new content; evaluation, feedback and corrective instruction.

Many researchers have questioned the quality of education being offered in our public schools. Nearly all researchers on this question have commented that the increased number of pupils has affected teachers since they now have to deal with increased workloads. As a result of the free primary education program many primary schools are understaffed and teachers' performance has been greatly affected (Too, 2005). Wilson (2006) notes that large classrooms impact aspects of teacher practice such as instructional

time and class management. UNESCO (2005) concurs with this position adding that large class sizes have minimal teacher-pupil interaction forcing teachers to go at the pace of the bright pupils thus leaving slow learners unattended. The increased teacher responsibilities without an equivalent raise in their remuneration have de-motivated many of them (Kenya, 2008). Teachers are not able to give individual attention to the learners especially the slow ones, hence affecting the quality of learning. Close interaction between teachers and pupils is not possible because teachers are busy all the time as they have too much work.

Moreover most classes are too large to be handled by a single teacher. UNESCO 2005 notes that the average the pupil-teacher ratio in most schools is 70:1, which has a serious implication on learning and teaching. Because of the increased workload, teachers have resorted to fewer assignments to avoid huge marking loads. Learning in primary schools has been affected as illustrated by Gichuru (2005) who states that teaching and learning process has been slowed down due to influx of pupils, inadequate teachers and enrolment of school dropouts. Nkinyangi (2005) concurs and adds that due to high enrolment and congested classrooms, teachers are unable to teach well and pupils are unable to concentrate.

Despite all this, all the education stakeholders still expect teachers to teach efficiently. It should not matter that teachers have to deal with very many pupils who have different needs. Wright, Horn and Sanders (1997), state that efficient teachers are supposed to be effective with students of all achievement levels, regardless of the level of heterogeneity in their classrooms. From the findings of the study the researcher will show whether teachers in Kuria East Constituency are effectively carrying out their teaching roles.

2.9 Teacher Well-Being and Teaching Effectiveness

As noted earlier, the characteristics of the FPE program in Kenya include increased enrolment, overcrowded classrooms and overworked teachers to mention a few. These problems impede teachers' output considering that their physical, mental and emotional well-being is not adequately taken care of by their employers. When these problems remain unattended, teachers become vulnerable and emotionally affected by stress, burnout or even depression.

Stress is common in just about all working environments. Too much stress that is not properly addressed could lead to burn out. Researchers have found out that burnout is common among human services careers like teaching (Brouwers and Tomic, 2000). Teachers also experience a lot of stress in the course of their careers (Evers, Tomic and Brouwers, 2004). Poor working conditions like unpleasant physical environment have been found to contribute to stress among teachers (Whitehead, Ryba and O'Driscoll, 2000). This kind of stress has inhibited teachers from effectively carrying out their mandate and hence reducing their expected output.

2.10 The Influence of Class Size on Schools K.C.P.E Performance

As already stated, the FPE program has led to larger class sizes and higher pupil-teacher ratios. In most cases the increase in student enrollment is not accompanied by an increase in capacity. There is mixed evidence on the impact of class size on student test scores. Angrist and Lavy (1999) find that students in larger classes perform poorly. Similarly, using class size as a surrogate for quality of overall school inputs, Case and Deaton (1999) found there is a negative relationship between class size and student achievement.

On the other hand, Hanushek (2003) argues that school inputs, including small class sizes, have little effect on student academic achievement.

Kenya Certificate of Primary Education (K.C.P.E) is a national examination that is offered at the end of 8 years of primary education. Pupils sit for K.C.P.E in order to qualify for secondary school education. With the introduction of free primary education, it was expected that quality of learning would go down and that this would reflect in the K.C.P.E examination results. However, statistics released for the 2009 Kenya Certificate of Primary Education (K.C.P.E) show that although the performance of K.C.P.E. has generally been improving over the years prior to the introduction of FPE, it has slightly improved since 2003 (Opiata, 2010).

Data from the Kenya National Examination Council (KNEC) indicate that since the introduction of FPE in 2003, public schools performance in K.C.P.E has been on a downward trend (Kigotho, 2009). Concerns have been raised over this poor performance. Weru (2009) observed that of the top 100 candidates nationally in the 2004 K.C.P.E examination, only one was enrolled in public primary school. Because performance in K.C.P.E determines entrance into secondary school, it is imperative for stakeholders in education ensure that pupils in public primary schools make it to secondary schools. These statistics also put in question the quality of education offered through FPE thus raising the need to re-evaluate how best the FPE program can achieve its goals. This study also looks at the performance trends in K.C.P.E in Kuria East Constituency.

2.11 Theoretical Framework

In a school setting teacher effectiveness plays a fundamental role in enhancing the effectiveness of the schools in performing their core function of imparting knowledge to pupils and students alike. According to Hargreaves (2001) school effectiveness has been a critical and attractive topic to scholars, researchers, educators, and policymakers because education is an important aspect in supporting the development and transformation of societies.

Tam and Cheng (2001) note that traditionally, bureaucratic approach, social system approach, and cultural approach have been used to achieve school effectiveness. In the bureaucratic approach emphasis is on the establishment of proper resources, structures, and control mechanism for teachers to increase their efficiency to achieve specific goals. The social system approach stresses school flexibility, internal process, and awareness of the external environment that may affect school performance and survival. The cultural approach underlines that developing school mission and ethos are essential to school effectiveness. After evaluating the three approaches Kwok-Kuen (2010) came up with a theoretical framework that emphasizes on the need to consider how to maintain, acquire, and manage school social capital, in addition to financial and human capital, in order to improve its effectiveness. For this reason this study utilizes Capital Theory of Effectiveness and Improvement as outlined by Hargreaves (2001), the General Systems Theory (because schools are systems whereby individuals interact) and the theory of self-efficacy in looking at teachers' beliefs to carry out the duties expected of them in studying the impact of the introduction of FPE on teachers' effectiveness in Kuria East Constituency.

2.11.1 Capital Theory of Effectiveness and Improvement – Hargreaves (2001)

School effectiveness is achieved through the interaction of intellectual capital and social capital. Intellectual capital is dependent on what the teachers 'know and do' while the social capital is based on the 'school's capacity to generate trust and sustain both internal and external networks' (Hargreaves, 2001). Hargreaves developed a theory of school effectiveness and improvement which is based on the outcomes (both cognitive and moral) leverage. In this model we look at the relationship between teacher input and education output; intellectual capital, which is the sum of the school's knowledge and experience; and social capital, that is, networks of trust and collaboration (Hargreaves, 2001).

Hargreaves (2001) argues that the conventional model of measuring school effectiveness (and improvement) is an inadequate tool for the analysis of school success and failure. In his model, Hargreaves proposes a theoretical model of schools, which provides a working model both of effectiveness and improvement. The theory has four master concepts:

2.11.1.1 The Four Concepts of the Capital Theory of Effectiveness and Improvement

a) Outcomes

This includes both the intended and unintended outcomes in a school setting. The kinds of outcomes are cognitive and moral.

b) Leverage

This is the relation between teacher input and educational output, or changes in students' intellectual and moral state resulting from the teacher's effort. Hargreaves argues that instead of teachers employing too much effort and yielding too little, effective schools

should concentrate on effective strategies allowing for large impact from relatively low effort.

c) Intellectual capital

This is the sum of the knowledge and experience of the school's stakeholders. This capital grows through creation of new knowledge and through the capacity to transfer knowledge between situations and people.

d) Social Capital

This is the level of trust and collaboration between people, and the existence of strong networks. High levels of social capital in a school strengthen its intellectual capital (through sharing). Unlike financial capital, social and intellectual capital are increased rather than depleted by passing on to others (Hargreaves, 2001).

This study employed the Capital Theory of School Effectiveness and Improvement to investigate the teacher's effectiveness in Kuria East Constituency before and after the introduction of the Free Primary Education. The theory is applicable in this study as school effectiveness is based on the teacher's effectiveness. It is evident that all the concepts of Hargreaves; Outcomes, Leverage, Intellectual capital, and Social capital, have a bearing on quality of education and thus on school performance.

According to Hargreaves (2001) effective school mobilises its intellectual capital - its capacity to transfer knowledge; and its social capital- capacity to generate trust and sustainable linkages - to achieve the desired educational outcomes of intellectual and moral excellence. This is attained through the successful use of high leverage strategies

that are based on the evidence-informed and innovative professional practice (Bururia, 2010).

Borrowing from this model, it is evident that introduction of FPE in Kenya had a bearing on the performance of pupils in K.C.P.E. This is because it introduced new leverages that had not been anticipated for in Kenya's education system. Schools were overstretched as a result of increase in enrolment rates leading to high pupil teacher ratio. This in turn resulted in the teachers having to adjust to meet the changes and challenges that came with FPE. In other words the intellectual capital, in this case- the teachers- was under sharp focus. As a result of FPE, the teacher's effectiveness was affected and the social capital hampered.

2.11.2 Systems Theory

Systems theory is a content-free, highly abstract set of assumptions and rules applicable to many fields of study. General systems theory first came to the full attention of the scientific community in the 1960s through the efforts of biologist Ludwig Von Bertalanffy (1968). Concepts derived from general systems theory have influenced several approaches to social work practice, such as ecosystems, biopsychosocial, and person-in-environment models (Anderson and Carter, 1990; Schriver, 1995; Turner, 1986).

The Systems theory is commonly used to investigate or describe a group of things that work together to produce a result. It focuses on the arrangement of and relations between the parts – how they work together as a whole. The way the parts are organized and how they interact with each other determines the properties of that system (Laszlo and

Krippner, 1997). The theory further states that every system is orderly and that this order is brought about by planning. Order and planning help us to understand relationships and the effects of a given process, attitude or object upon other people's events (Richey, 1986).

At the core of system theory are the notions that; a "system" is an ensemble of interacting parts, the sum of which exhibits behavior not localized in its constituent parts. (That is, "the whole is more than the sum of the parts) Change is seen as a transformation of the system in time, which, nevertheless, conserves its identity. Growth, steady state, and decay are major types of change with goal-directed behavior characterizing the changes observed in the state of the system (Richey, 1986).

In the case of this study, the system under scrutiny is the Kenyan education system and more so public primary schools. In every education program, for example the Free Primary Education, planning is crucial for policy goals to be achieved. Like many other systems the introduction of FPE has a mission and a goal. The mission and goals of FPE are clearly stated in many policy documents like the Kenyan Vision 2030 among others. This theory applies in this study because the effectiveness of teachers to carry out their roles depends on how well the school system operates. Whereas the teachers' effectiveness in carrying out there goals is important the output of the teachers is best measured by the overall performance of schools (the whole) rather than by class performance or individual pupil performance (parts). The System Thinking allowed the researcher to have an overview of the structure and the dynamics of the local education system and was relied upon to come up with recommendations on possible interventions on teachers' effectiveness in Kuria East Constituency.

2.11.3 Self- Efficacy Theory

Self-efficacy has been defined as a person's belief in his or her ability to succeed in a particular situation. Bandura states that these beliefs are determinants of how people think, behave, and feel (1994). An individual's self-efficacy plays a major role in how one approaches his/ her goals, tasks, and challenges. People with a strong sense of self-efficacy view challenging problems as tasks to be learned and form a stronger sense of commitment to their activities. By learning how to minimize stress and elevate mood when facing difficult or challenging tasks, people can improve their sense of self-efficacy

Sources of Self-Efficacy

It is stated that self- efficacy evolves throughout life as people acquire new skills, experiences, and understanding (Bandura, 1994). According to Bandura, there are four major sources of self-efficacy:

1. Mastery Experiences

Bandura states that performing a task successfully strengthens our sense of self-efficacy. For example, a teacher using a particularly effective practice feels more confident that, through its use, he/she will be more successful in reaching his/her students.

2. Social Modeling

Observing other people successfully completing a task is an important source of self-efficacy. Seeing people similar to one succeed by continued effort raises observers' beliefs that they too have the capabilities to succeed in comparable activities.

3. Social Persuasion

Bandura also asserted that people could be persuaded to believe that they have the skills and capabilities to succeed. Getting verbal encouragement from others helps people overcome self-doubt and instead focus on giving their best effort to the task at hand. In a school setting, head teachers could encourage and reward teachers who excel in their duties as a way to motivate them.

4. Psychological Responses

Personal responses and emotional reactions to situations also play an important role in self-efficacy. These can impact how a person feels about their personal abilities in a particular situation. If a teacher try's a new approach to teaching that does not produce the desirable results, he/she may develop a weak sense of self-efficacy in a similar situation.

Teacher efficacy has been described as teachers' confidence in their ability to promote pupils' learning" (Hoy, 2000). In the case of FPE, teachers ought to have a strong sense of self-efficacy in order to view the policy's challenges as tasks that they can master and be good at. Additionally, teachers ought to be committed to what they do so that they can produce desirable results in all aspects of their career.

2.12 Conceptual Framework

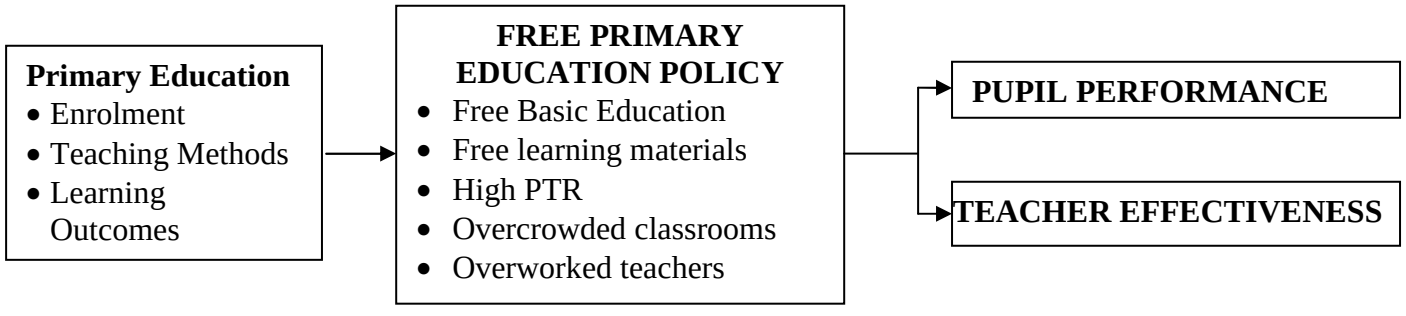
The Systems Theory concept is important in designing, implementing, and evaluating the FPE program. The theory has been used to describe input, throughout, and output factors used in creating and operating the program, as well as the incorporation of feedback in making modifications to the program. The systems perspective allowed the researcher to

better understand the interaction of variables affecting the operation of the program and where changes can be made to address problems and enhance student learning. At the same time,

Based on the Capital Theory of School Effectiveness and Improvement, effective schools mobilize their intellectual capital and social capital to achieve desired educational outcomes of intellectual and moral excellence. When any of the four concepts outlined by Hargreaves (2001) is affected there is a direct effect on the academic performance of pupils. In addition, how the Kenyan Education System works will determine how well the learning objectives are fulfilled.

In looking at the concept of self-efficacy, the ability of teachers to perform and adopt to the aspects of FPE that have been introduced to their working environment will determine how efficient they are in producing the expected output. The conceptual framework presented in Figure 2.1 constructed on the basis of the three theories in addition to the researcher's literature review.

Figure 2.1 Conceptual Framework



As stated earlier, systems theory is concerned with the interaction of variables. In this study, the interaction of variables was examined in terms of the impact of the implementation of the Free Primary Education program. Figure 2.1 shows the relationship between the independent and dependent variables of the study. The independent variables of the study are the characteristics of primary education such as enrolment, pupil-teacher ratio, class sizes and teaching and learning materials. The dependent variables are teacher effectiveness (teacher-teaching methods) and learning outcomes as well as K.C.P.E performance. As illustrated above the implementation of Free Primary Education which was the intervening variable brought about high enrolment, high pupil teacher ratio and large class sizes. Increased enrolment of pupils in schools without an increase in the number of teachers leads to high pupil teacher ratio and large class sizes. Increase in pupils' enrollment, especially if classes and teachers are inadequate could lead to overcrowding in public primary schools. Because of these new changes that were brought about when FPE was introduced in 2003, the education system and more so at the primary school level was not able to function as it was expected to produce the desired result which was to impart knowledge to the pupils enrolled in primary schools. The research therefore took on the premise that due to systems not working as they ought to, that this had an impact on how teachers carried out their mandate and in the long run how the effectiveness of teachers was perceived. At the same time, the level of self-efficacy of a teacher was supposed to determine their commitment to produce the anticipated results in their schools.

In looking at the Capital Theory of School Effectiveness and Improvement as it relates to the conceptual framework of the study, it can be clearly seen that the four concepts of this

theory have evidently been brought out. The introduction of FPE had outcomes both intended and unintended. According to Figure 2.1, it would be proper to say that the intended outcome of the FPE has increased enrolment of pupils. The unintended outcomes included overcrowding of classrooms, increased pupil-teacher ratio, improper teaching methods that did not benefit pupils and ultimately poor performance in KCPE. Increased pupil-teacher ratio affected the concept of leverage as there was no match between what the teacher taught (mostly using lecture methods) and what the pupils learned as witnessed by performance in KCPE.

Free Primary Education policy also had an impact on what the teachers knew and did, which is the intellectual capital. Because teachers were ill-prepared to handle large numbers of pupils that characterized FPE at the beginning, their continued use of teaching methods that they were not accustomed to did not yield the proper pupils' learning outcomes. According to Figure 2.1, the teaching methods employed were the lecture and teacher oriented methods. In terms of social capital which is the capacity of the school/school system to sustain both internal and external networks, the FPE policy did not do much to enhance the social capital especially at the school level. As a result of overcrowded classrooms and increased pupil-teacher ratio, the teacher-pupil relationship was impacted negatively which in turn affected the schools' performance in KCPE as seen on Figure 2.1. All these aspects of Capital Theory of School Effectiveness and Improvement have a direct impact on the teacher effectiveness which is demonstrated through the teaching methods they employ and is measured through the learning outcomes of the pupils.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

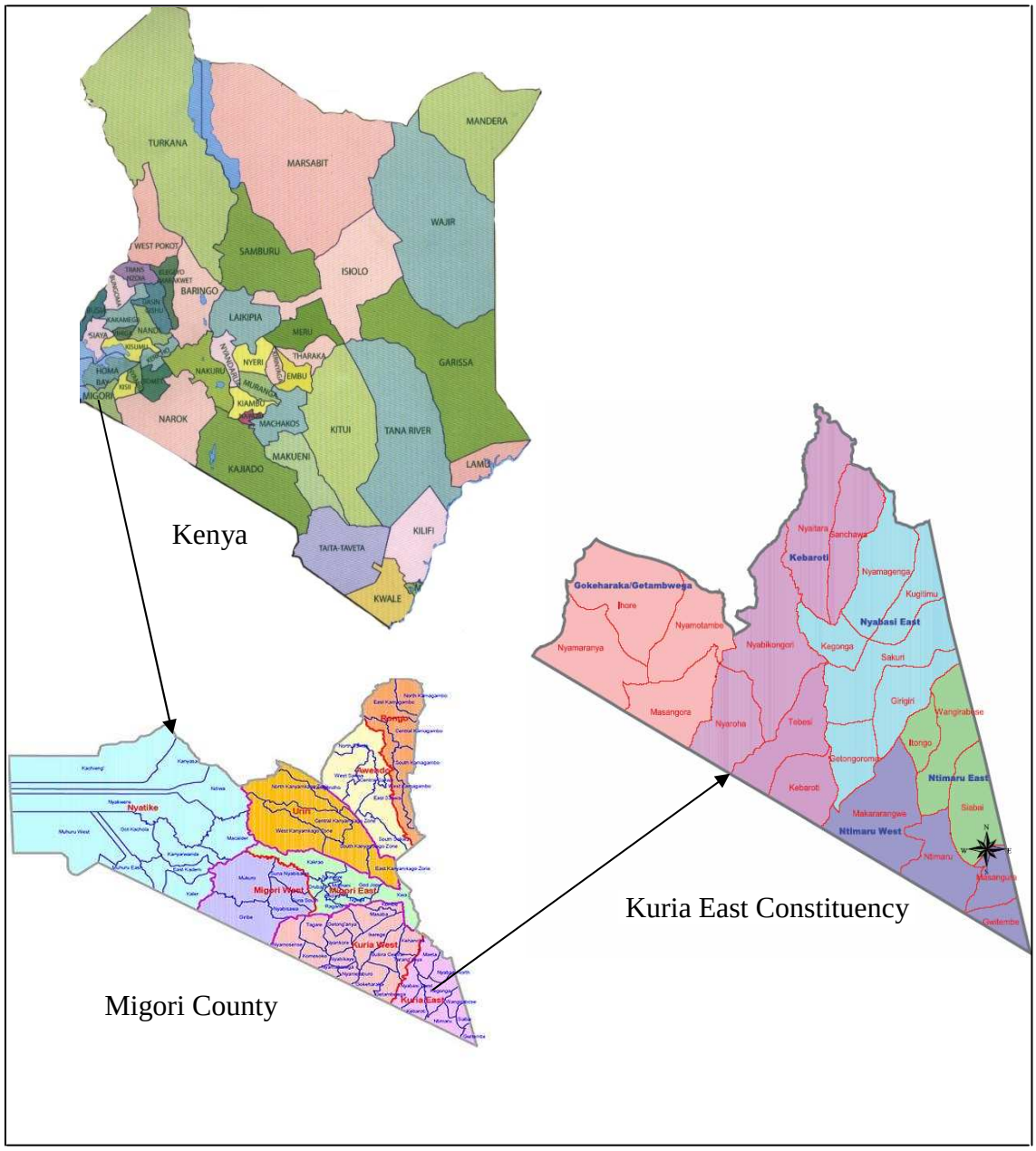
In the last chapter the researcher carried out a detailed literature review on the impact of FPE program on the effectiveness of teachers in Kenya and also drew comparisons with similar programs that have been initiated in the countries of the region. In this chapter, the research design, target population, sample and sampling procedures, research instruments, instruments' validity and reliability, data collection procedures and data analysis procedures for the case of the subject in Kuria East Constituency will be discussed.

3.2 Study Area

The study was conducted in public primary schools in Kuria East Constituency in Migori County. The Constituency is composed of five Wards namely Ntimaru East, Ntimaru West, Nyabasi East, Nyabasi West and Getambwega. As per the 2009 National Population Census the constituency had 93,229 people occupying an area of 235 square kilometers.

As seen in Map 1 below, the constituency boarders Narok County to the east and Northern Tanzania to the south. As such some Tanzanians seeking more superior primary education than their own enroll their children in primary schools here. At the time of this study the constituency had a total of 68 public primary schools (See Appendix IV). The number of schools per ward is shown in table 3.1.

Map 1: Map of Study Area



Compiled by Author (2012)

Table 3.1 Number of Public Primary Schools in Each Ward

Ward	No. of Public Primary Schools
Ntimaru East	7
Ntimaru West	13
Nyabasi East	14
Nyabasi West	20
Gokeharaka/Getambwega	14
Total	**68**

Source: County Education Offices, Migori County

3.3 Research Design

According to Borg and Gall (1989) a research design is a logical and valuable way of looking at the world. In this study, the researcher used mixed methodology which employed qualitative and quantitative research methods. Quantitative data was gathered through the use of a survey that consisted of questionnaires while qualitative data was gathered through an interview schedule, in this case producing a combination of statistical and experiential data (Zechmeister and Jeanne, 2011).

The use of quantitative and qualitative methods in social research has been widely discussed as both methods have their advantages and disadvantages. The use of mixed method research has become increasingly common in recent years in order to offset the weaknesses and draw on the strength of both methods (Bryman, 2006). Thus the study adopted a mixed method approach which was able to give a more complete and comprehensive account of the enquiry (Creswell, 2003). Questionnaires containing close ended questions were used to collect quantitative data which provided numerical evidence and allowed statistical analysis. The qualitative data was gathered using questionnaires that contained open-ended questions, and semi-structured interviews.

The quantitative and qualitative data were collected concurrently. In other words the quantitative and qualitative data were collected and analyzed in parallel and then merged during the interpretation phase (Creswell, 2003). The researcher adopted this approach following recommendations contained in Morris and Venkatesh (2010) who argue that the use of a concurrent approach in mixed methodology helps in capturing changes over time. The approach was preferred for this study because of the nature of the changes that were explored and the potential impact of time on these changes. This allowed for any unexpected results from any of the methods to be explained through the findings generated by the other thus offering a more complete understanding of the subject matter (Bryman, 2006).

3.4 Target Population

A population is a complete set of individual cases or objects with some common observable characteristics (Mugenda and Mugenda, 1999). This study targeted the 68 head teachers and 637 teachers in all the 68 public primary schools as well as area education officers in Kuria East Constituency.

3.5 Sampling Technique

However it was not possible to gather data from the entire research population for such a small study and therefore the researcher chose an appropriate sampling procedure to select the sample of the three categories of respondents. According to Borg and Gall (1996) sampling is a research technique used for selecting a given number of subjects from a target population as a representative of the population. Sampling is significant since it is not possible to study every member in the whole population and enables one to

learn something about a large group by studying a few lists of the members thus saving time and money (Mulusa, 1998).

Sampling was carried out using three sampling methods; stratified sampling, purposive sampling and simple random sampling. The researcher used stratified sampling to identify the schools to include in the study. We sought the list of all public primary schools in the constituency from the county education offices and grouped them into five strata comprising the five of wards in constituency; all public primary schools in a given ward belonged in one strata. The researcher then calculated a proportionate allocation to determine the number of schools to be sampled from a given ward. This was governed by the number of schools per ward against the sample size. These calculations are explained in section 3.5.1 below.

Purposive sampling technique was employed to select the schools to participate for the research from amongst those that were identified through stratified sampling technique. The researcher gave priority to schools that had existed for longer period. This was found necessary because the research was to collect data spanning the period 1998 – 2008 and as such the schools must have been long before 1998. All head teachers whose schools were selected to be part of the sample, were automatically selected to be part of the study.

Simple random sampling was used to identify the teacher respondents. Through the utilization of randomization this sampling technique guaranteed that every teacher in the schools had an opportunity to participate in the research. It also assured the absence of both systematic and sampling bias hence ensuring that sampled teachers were a representative of the entire population.

3.5.1 Sampling Frame

The aim of determining a sample size for a research is to select part of the population from which information is drawn to form conclusions about the entire population. Due to logistical issues and the cost involved in covering the targeted schools the study targeted a third of the 68 public primary schools in the constituency. Though this gave the figure of schools to be sampled at 23, the study found it prudent to use 25 schools as this was divisible by 5 (the number of wards in the constituency). Therefore, the sample of 25 primary schools helped deal with sampling bias that would have been created by the target of 23 schools. Had the number of public primary schools been the same in all the wards, a sample of 23 would have meant while some of the wards had 5 schools others would have had few number of schools leading to a sampling bias. The study considered this ideal, 36.8%, as advised by Mugenda and Mugenda (1999). Information about all 25 public primary schools is contained in Appendix IV.

The researcher used the formula as explained by Miller and Brewer (2003) to determine the number of teachers to participate in the research:

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

Where

α was the level of significance or margin of error(9%),

n was the sample size and

N was the sample frame.

In order to have a fair representative sample size of the teacher respondents, the sample size was determined at a 90% confidence level (At a 0.10 significance level).

$$n = \frac{637}{1 + 637(0.09)^2} \quad \text{n} = 103$$

The researcher opted to work with a figure of 100 teachers which was the closest figure divisible by 25 (the number of schools).

3.5.2 Sampling Size Distribution

The sample size of each ward was determined using the proportional method of sample size distribution which was dependant on the number of schools in each ward. Having settled for the use of a sample of 25 public primary schools in the constituency, this sample size was then divided proportionately according to the number of schools in a given ward. For example, Ntimaru East had 7 public schools. To determine the number of schools to be used from this ward the number of schools in ward divided by the total number of the schools (68) targeted by the study and multiplied against the expected sample size of the schools (25).

Calculations that derived the distribution of the sample size for the teachers in each school are given below.

$$\text{Ntimaru East} = \frac{7}{68} x25 = 2.5 \approx 3 \text{ schools}$$

$$\text{Ntimaru West} = \frac{13}{68} x25 = 4.7 \approx 5 \text{ schools}$$

$$\text{Nyabasi East} = \frac{14}{68} x25 = 5.1 \approx 5 \text{ schools}$$

$$\text{Nyabasi West} = \frac{20}{68} x25 = 7.3 \approx 7 \text{ schools}$$

$$\text{Getambwega} = \frac{14}{68} x25 = 5.1 \approx 5 \text{ schools}$$

Table 3.2 Sampling Matrix

Ward	No. of Public Primary Schools	Sample Size
Ntimaru East	7	3
Ntimaru West	13	5
Nyabasi East	14	5
Nyabasi West	20	7
Gokeharaka/Getambwega	14	5
Total	**68**	**25**

Table 3.2 gives the summary of the sampling matrix which was obtained based on the number of public primary schools in each ward against the total number of target schools. The numbers were derived through proportionate sampling. The proportionate sampling was informed by Miller and Brewer (2003) who note that proportionate sample distribution is used to select a sampling size proportionally to the size of its proportion.

Though the questionnaires were administered in all the sampled schools, the study was not able to get data on enrolment, KCPE performance and teacher pupil ratio for certain years as some of the school heads did not have the data while others schools were not in existence by 1998. Only 19 schools had complete data for the 1998 – 2008 study period.

3.6 Data Collection Instruments

The study employed the use of three sets of instruments. These included a questionnaire, an interview schedule and a document analysis guide. Two sets of questionnaire were developed one targeting the head teacher while the other targeted the teachers. A document analysis was used to gain data on school enrolment, teacher population and KCPE performance of the schools for the period 1998 – 2008.

3.6.1 Questionnaire

This is a research instrument that gathers data over a large sample. As stated by Orodho (2002) a questionnaire has a diverse number of merits upon which a researcher may opt to use it as an instrument to collect data. The questionnaire was used for data collection because it offers considerable advantages in the administration. According to Gray (2004), questionnaires give respondents freedom to express their views or opinion and also to make suggestions. It is also anonymous which helps produce more candid answers than is possible in an interview.

In this study two sets of questionnaires, head teacher questionnaire and teachers questionnaires, were used. Each of these questionnaires had a set of close and open ended questions.

a) Head teacher Questionnaire

This questionnaire was used to collect data from head teachers on their view of teacher effectiveness prior to the introduction of FPE and after the introduction of FPE. The questionnaire included general information on the school staff composition, nature of the school in terms of number of streams per class, enrollment trends, K.C.P.E performance and teacher effectiveness before and after the introduction of FPE.

These questionnaires were administered to the head teacher or the deputy head teacher depending on their availability at the time of the study. Priority was given to the head teacher in cases where both of them were available. The difficulty encountered in the administration of these questionnaires was that in several schools

where the head teacher was not available their deputies were not willing to respond to the questionnaires requesting the researcher to wait for the head teacher. This was not only time consuming but also expensive as in two instances the researcher had to make several trips to the schools before getting in touch with the head teachers.

b) Teachers Questionnaire

This questionnaire gathered data from teachers on their perceptions of their effectiveness prior to and after the introduction of Free Primary Education. The questionnaire collected demographic data of the teachers, including their age, gender, academic and professional qualifications, teaching subjects and work experience. The questionnaire also included questions of frequency of pupil assessment and other duties prescribed to teachers, availability of resources for learning and aspects of Free Primary Education that have impacted on learning.

As stated by Orodho (2002) a questionnaire has a diverse number of merits upon which a researcher may opt to use it as an instrument to collect data.

This study opted for questionnaires since they enabled the researcher to collect information from a large number of people and the questions were easy to analyze. Their anonymous nature helped produce more candid answers than was possible with the interview schedule.

3.6.2 In-Depth Interview Schedules

The researcher used in-depth interview to guide interviews conducted with the DEOs and QASOs. The method enabled the researcher to use both open and closed ended questions in order to get a complete, clear and detailed understanding of the problem under study.

The researcher collected information through personal interviews in a structured way which involved the use of a set of predetermined questions which were asked in the form and order prescribed. These instruments were used to collect data from key informants who included the Area Education Officer, County Educational Officials and Quality Assurance and Standards Officer.

3.6.3 Document Analysis Guide

According to Cohen, Manion and Morrison (2008) many documents in "public domain" are prepared by professionals and contain very valuable information and insights. They note that documentary sources have the highest level of accessibility and are very cost effective in a research.

For this particular study, document analysis provided an opportunity to analyze documented information on the school enrolment, number of teachers in the school, the number of pupils and performance of schools in K.C.P.E over the years. Some of this information was almost impossible to get by any other research method and moreover, these documents were very easy to access. The documents were very useful for this research and most of them were available in the head teacher's offices and the former district education offices.

3.7 Reliability and validity of the Research Instruments

This refers to the degree to which a test measures what it purports to be measuring (Orodho, 2002). The process of developing and validating an instrument is in large part focused on reducing error in the measuring process. Reliability estimates evaluate the stability of measures, internal consistency of measurement instruments. The reliability of

a research instrument concerns the extent to which the instrument yields the same results on repeated trials. Although unreliability is always present to a certain extent, there will generally be a good deal of consistency in the results of a quality instrument gathered at different times.

The study adopted the data triangulation technique by using a combination of data sources which were questionnaires, interview schedule and document analysis. The technique of using the three methods together has the effect of compensating the strengths and weaknesses from each source (Creswell, 2003). The aim was to improve the validity of the findings. The questionnaires and interview were examined, discussed and reviewed by the supervisor and the researcher who used the relevance of the content on the instrument in relation to the purpose, objectives and research questions. Suggestions given were taken into account and the necessary adjustments in the instruments made.

3.8 Data Collection Procedures

The researcher obtained a research permit from the Ministry of Education Science and Technology allowing for the study within the public primary schools in Kuria East Constituency. The letters helped the researcher access the schools, brief the head teachers on the purpose of the study and cleared any queries raised by the school administration.

At the school level, consent was sought from the head teachers for the administration of the questionnaire to the teachers. The researcher personally administered the questionnaires to the teachers and the head teachers. The researcher clearly explained to

the respondents that the research was for academic purposes and their responses would remain confidential. She asked them to complete the survey as honestly and accurately as possible. By personally administering the questionnaires to the teacher respondents, the researcher saved on time and costs as only a single trip was made for most of the schools. At the same time the researcher was able to attain a high response of 88%.

Where teachers sought for more time, arrangements were made between the researcher and the teachers and contacts exchanged which helped the researcher make follow up. The head teacher questionnaires were administered at the head teachers' office and this helped the study benefit from secondary data by perusing documents in custody of the head teachers like the enrolment records for previous years.

Prior arrangements were also made and appointments for the interviews secured with education officer and QASO's for the interview schedule. The researcher ensured that all appointments were honoured. The researcher personally undertook all interview schedules with key informants.

In total, one hundred (100) teacher questionnaires and 25 head teacher questionnaires were administered to the selected respondents. Out of these only eighty eight (88) teacher questionnaires were collected for the analysis as some were not filled to the satisfaction of the research as some would be respondents failed to cooperate while others provided incomplete information about their socio-demographic characteristics. All the head teacher questionnaires were dully filled and submitted to the researcher. See table 3.3.

Table 3.3 Teacher Respondents per Ward

Ward	Questionnaires Administered	Questionnaires Submitted back for Analysis
Ntimaru East	12	11
Ntimaru West	20	18
Nyabasi East	20	16
Nyabasi West	28	25
Gokeharaka/Getambwega	20	18
Total	**100**	**88**

3.9 Data Analysis Procedures

Data analysis is the process of systematically searching and arranging the raw data, with the aim of increasing one's own understanding of the data (Miles and Huberman, 1994). The researcher followed the process suggested by Miles and Huberman (1994) consisting of five phases namely; data collection, data reduction, data display, conclusion drawing and verifying findings, to analyse data for this research.

The data generated by questionnaires, interview and observation schedules were checked, edited organized and computer coded to reduce the mass of data obtained into a form suitable for analysis. The coded data was then fed into a computer using analytical software, Statistical Package for Social Science (SPSS), which proved valuable in statistical analysis, data management (case selection, file reshaping, creating derived data) and data documentation.

Descriptive statistics was obtained through cross tabulation, frequencies, and descriptive ratio statistics. Cross tabulation involved the process of creating a contingency table from the multivariate frequency distribution of statistical variables which was then exported to Excel work and used to generate the trends (Enrolment and K.C.P.E performance). Qualitative data was analysed using content analysis based on analysis of meanings and

implications emanating from respondents information and documented data. According to Gray (2004) qualitative data provides rich descriptions and explanations which demonstrate the chronological flow of events as well as often leading to chance findings. Content analysis allowed for the classification and sorting, and enabled the researcher to arrange information and examine the relationships in the data.

The analyzed data was then summarized into frequencies and percentages and presented in tables, bar charts and figures. The illustrations helped to present, discuss and interpret the obtained findings. The findings obtained formed the basis of discussions, conclusions and recommendations.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

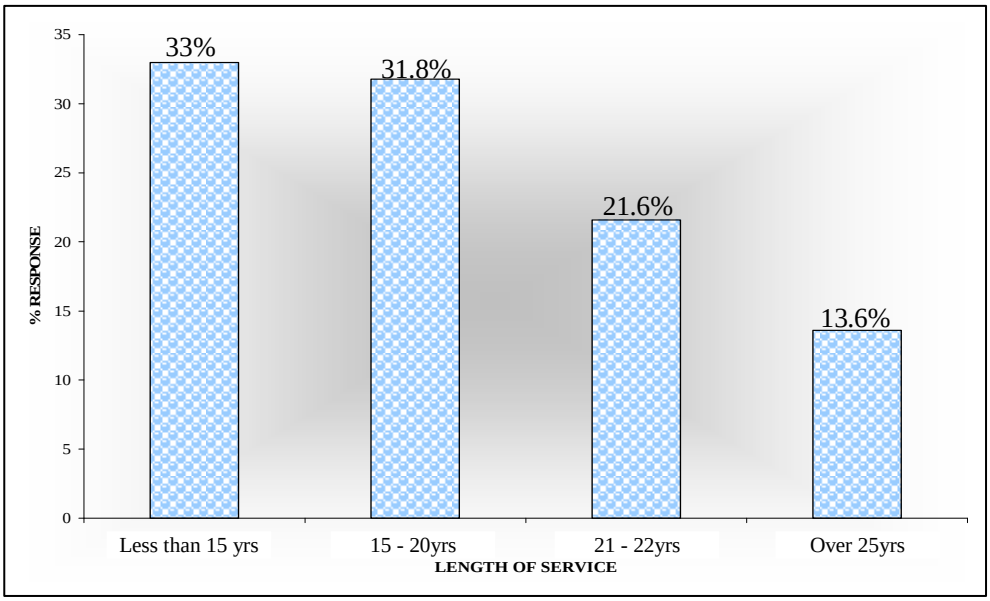
In the last chapter the process used to collect the data for the study and the tools employed to analyse it were discussed. In this chapter, data collected from various respondents who participated in filling the questionnaires and in the interviews is discussed and analysed. Structured questions were used to generate quantitative data, and the unstructured questions and interview schedules to generate qualitative data. Descriptive statistics were used to analyse quantitative data and the results are presented in the form of tables, percentages, graphs and charts. On the other hand content analysis was used to analyse qualitative data. The results of data analysis provided information that formed the basis for discussion, conclusion, and interpretation of the findings and recommendations of the study.

4.2 Demographic Information of the Teacher Respondents

4.2.1 Duration of Service as a Teacher

Figure 4.1 below indicates that 33% of the respondents had served in the teaching profession for less than 15 years while 31.8% had served as teachers for 15 – 20 years, 21.6% for between 21 – 25 years and 13.6% had served for more than 25 years.

Figure 4.1 Duration of Service



These findings show that majority teacher respondents (71%) had been in the teaching profession for more than 13 years and had therefore served throughout the period when FPE was in existence. They therefore had enough experience to carry out their expected duties and were also in a position to give useful insights about the challenges that have been experienced in the implementation of free primary education program and how these challenges affected their teaching activities.

4.2.2 Duration of Service in Current School

Table 4.1 below summarises the duration which teachers had served in the current duty station. Within the sampled schools, 48.9% respondents had served their current schools for less than 5 years, compared to 40.9% who had served for 5 – 10 years, 8% who had served for 11 – 15 yrs, and 2.3% who had been in the school for over 15 years.

Table 4.1 Duration of Service in Sampled Schools

Length of Service	Frequency	Percentage (%)
Less than 5 yrs	43	48.9
5 - 10 yrs	36	40.9
11 - 15 yrs	7	8.0
Over 15 yrs	2	2.3
Total	**88**	**100**

In section 4.2.1 the study found that only 33% of the teachers had been in the teaching profession for less than 15 years; it is therefore evident that most of the teachers had taught in more than one school during the 13 years of FPE program. Bearing that in mind, it could probably not be prudent to assess teacher effectiveness based on the KCPE results because most teachers had not been with their pupils long enough to impact on their learning outcomes. In the next section the study gives results of the interrogations of the results of teachers' performance before the introduction of FPE. This was found important because it would go a long way into meeting the study objectives if a good number of the teachers had been teaching in the area of study by the time FPE was introduced.

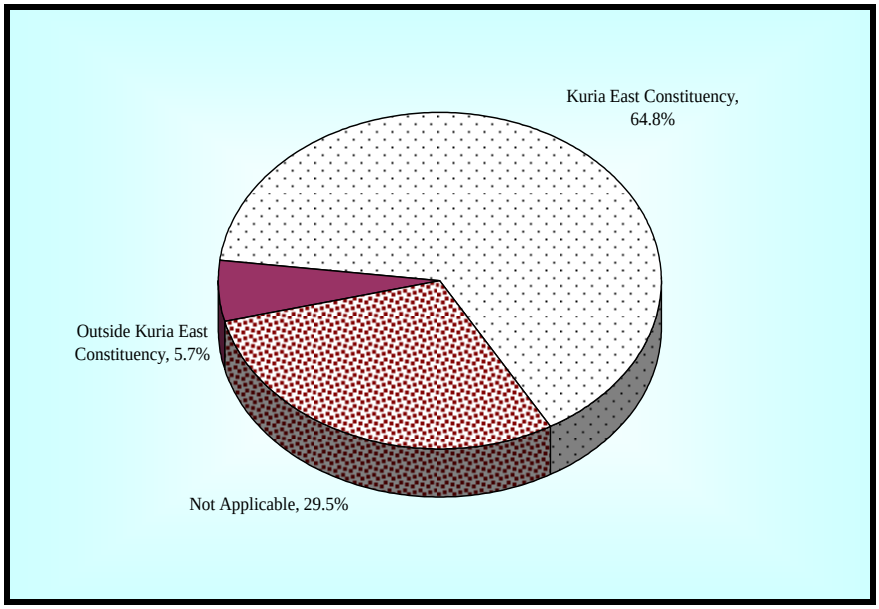
4.2.3 Constituency of Service before the FPE

The study posed the close ended question 'Where were you teaching before the Implementation of FPE?' to determine whether the teachers had been teaching in Kuria East Constituency by the time FPE was rolled out countrywide in 2003.

The summary of the findings are illustrated in Figure 4.2 below. The study established that 64.8% respondents had been teaching in Kuria East Constituency by the time FPE

was introduced compared to 5.7% who were teaching elsewhere and 29.5% who had not commenced teaching.

Figure 4.2 Constituency of Service before the FPE



The fact that most teacher respondents had been teaching in the constituency of study at the onset of FPE, it meant they had made ample interactions with people in Kuria East Constituency and therefore understood the dynamics of the area including the progress that had been made in education that was relevant to the research topic.

4.2.4 Teachers Current Class of Teaching

As shown in table 4.2 below 36 (40.9%) teacher respondents taught in upper primary compared to 27 (30.7%) who taught in lower primary and 25 (28.4%) who taught in both upper and lower primary classes.

Table 4.2 Teachers Current Class of Teaching

Class	Frequency	Percentage (%)
Lower Primary	27	30.7
Upper Primary	36	40.9
Both	25	28.4
Total	**88**	**100**

4.3 Pupils Enrollment Trends

This section gives the findings on the pupil enrolment rate in Kuria East Constituency for the period under review.

4.3.1 Enrolment of Pupils into Public Primary Schools in Kuria East Constituency

Table 4.3 below gives a summary of the average enrolment per the sampled school in every administrative ward. Between the year 1998 and 2002 the average number of pupils enrolling into a school rose from 73 to 78 compared to a rise of 78 to 103 between 2002 and 2003 and a jump from 103 to 116 between 2003 and 2008. FPE had not been rolled out between 1998 and 2002 which explains the small change in enrollment per school which could have been consistent with the average population growth in the area. There was however a sharp increase in enrollment between 2002 and 2003 (of 25 pupils per class) after the introduction of FPE. This study sought to find out whether this increase in enrollment affected teacher effectiveness in terms of what and how the teachers taught and on the pupils' learning outcomes.

Table 4.3 Enrolment in Kuria East Constituency between 1998 – 2008

	YEAR										
Name of Ward	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Nyabasi West	316	312	319	328	312	438	441	449	447	438	454
Ntimaru West	372	369	367	401	404	530	570	580	605	613	619
Ntimaru East	181	191	188	192	189	256	261	239	252	261	260
Getambwega	265	304	280	288	289	364	404	413	410	430	444
Nyabasi East	250	245	256	277	287	369	415	423	432	416	425
Total Enrolment	**1,384**	**1,421**	**1,410**	**1,486**	**1,481**	**1,957**	**2,091**	**2,104**	**2,146**	**2,158**	**2,202**
Average enrolment per school	**73**	**75**	**74**	**78**	**78**	**103**	**110**	**111**	**113**	**114**	**116**

Table 4.3 above was used to calculate the percentage increases in enrolment before and after the introduction of FPE, and a summary of the results are tabulated in table 4.4 below.

Table 4.4 Percentage change in enrolment in Kuria East Constituency

	1998 - 2001 (%)	**2002 - 2003 (%)**	**2004 - 2008**
Ntimaru East	6.1	35.5	-0.4
Nyabasi East	10.8	28.6	2.4
Nyabasi West	3.8	40.4	2.9
Ntimaru West	7.8	31.2	8.6
Getambwega	8.7	26.0	9.9
Average	**7**	**32**	**5**

From table 4.4 it can be seen that between the years 1998 – 2001 Nyabasi East Ward witnessed the highest percentage enrolment rate of 10.8% compared to Getambwegaward (8.7%), Ntimaru West (7.8%), and Ntimaru East (6.1%) while Nyabasi West had 3.8%

enrolment increase. The average increase of pupils' enrolment for the entire constituency during this period was 7%.

After the introduction of FPE education in 2003, all the primary schools in the five wards of Kuria East Constituency experienced a surge in pupil enrolment. Nyabasi West had the highest enrolment increase of 40.4%, followed by Ntimaru East with 35.5%, Ntimaru West experienced with 31.2%, Nyabasi East with 26.0% and Getambwega with 26.0% increase. On average the entire Kuria East Constituency experienced a 32% increase in enrolment.

Between the years 2004 – 2008 Getambwega experienced the highest percentage increase in enrolment of 9.9%, followed by Ntimaru West experienced 8.6% rise, Nyabasi West 2.9% and Nyabasi East 2.4%. Within this period, Ntimaru East was the only ward that experienced a 0.4% decline in enrolment. The study established that the Ntimaru East Ward which borders the Maasai and Kipsigis had been experiencing a lot of unrest arising from incessant cattle rustling and inter-tribal wars with the two neighbouring communities. As a consequence many of the residents of those areas had relocated to other wards, more specifically to the neighboring Ntimaru West Ward.

The research also sought to determine the influence of the introduction of FPE on gender enrolment in schools, and the results are summarized in table 4.5 below.

Table 4.5 Pupils Enrollment by Gender

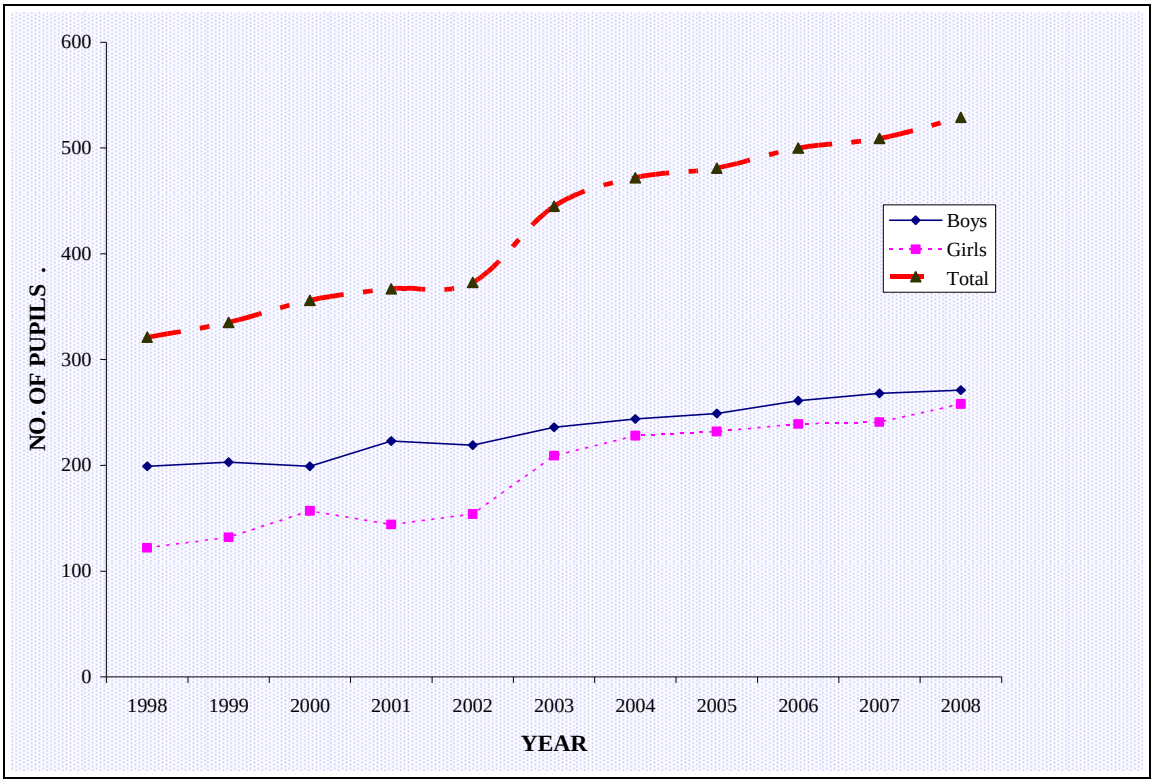
Year	Boys		Girls		Total	% Increase
	No.	% Increase	No.	% Increase		
1998	199		122		321	
1999	203	2.0	132	8.2	335	4.4
2000	211	3.9	145	9.8	356	6.3
2001	208	-1.4	159	9.7	367	3.1
2002	219	5.3	154	-3.1	373	1.6
2003	236	7.8	209	35.7	445	19.3
2004	244	3.4	228	9.1	472	6.1
2005	249	2.0	232	1.8	481	1.9
2006	261	4.8	239	3.0	500	4
2007	268	2.7	241	0.8	509	1.8
2008	271	1.1	258	7.1	529	3.9

The findings showed that before the introduction of FPE the percentage increase of school enrolment was higher for the girls compared to that of the boys. Between 1999 and 2002 the highest percentage increase for the boys was 5.3% while that for the girls was 9.8%. In 2003 the enrolment of girls improved from -3.1% recorded the previous year to 35.7% while that of the boys increased from 5.3% to 7.8% (see table 4.5 above and Fig. 4.3 below).

Figure 4.3 is a graphical presentation of the total enrolment trends as well as those for boys and for girls between 1998 and 2008. The graph shows that there has been a steady increment in overall pupils' enrolment over the years. There was however a decrease in enrolment for boys in 2001 (-1.4%) and for girls in 2002 (-3.1%). The research observed that though the schools experienced on overall increase enrolment for both boys and girls, the number of boys enrolled in all the years under investigation were always more than

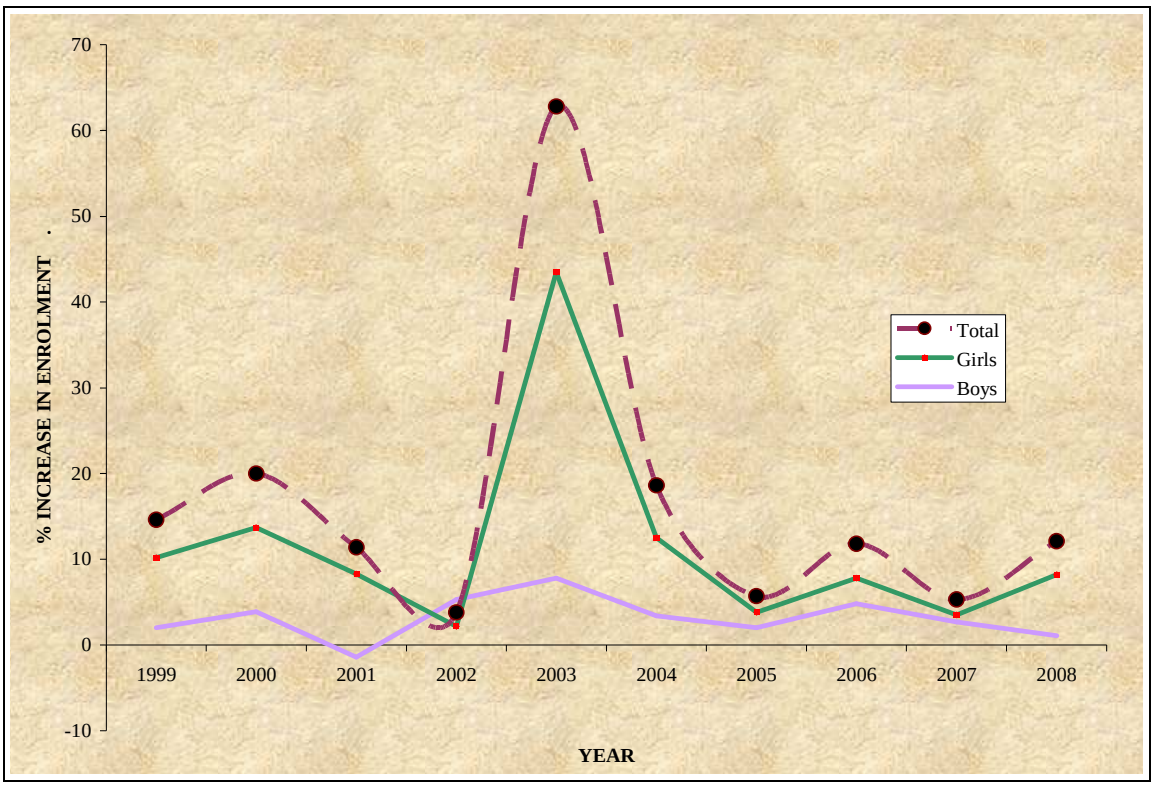
girls. However results in Fig. 4.3 show that the gap between boys' and girls' enrolment narrowed after 2003 and the trend was maintained in the subsequent years.

Figure 4.3: Trends of boys and girls enrolment between 1998 and 2008



The graph indicates that that there was a sharp rise in the rate of school enrolment after the introduction of FPE in 2003 with girls' enrolment hitting a high of 35.7%. The growth in school enrolment has since become steady but on the upward trend. On the overall the school enrolment increased by 32% between 2002 and 2008. These results are close to those obtained by Chuck in 2009 that showed an increase of the national enrolment of 29.2% in 2003.

Figure 4.4 Percentage Increase in Enrolment of Kuria East Constituency



Again Fig. 4.4 shows that the highest percentage increase in pupils' enrolment was experienced in 2003 with the girls showing a remarkable increase in enrolment at 35.7%. As can be seen from the graph there was a steep increase in pupils' enrolment after the introduction of FPE (19.3%) but it slowed down in 2004 to 6.1%. The reason behind this decline could have been the fact that most of the pupils who had dropped out of schools due to lack of fees resumed learning after the introduction of FPE. Increase in enrolment in the subsequent years was only witnessed in standard one intake meaning that parents were not letting their children stay home once they attained school going age.

As noted by Ondiek (2010) lack of education or poor participation of girls in the process of formal education is quite detrimental to national and human resource development of

any nation. The introduction of FPE went a long way in fostering the inclusion of girls in formal education in Kuria East.

4.4 Pupil - Teacher Ratio in Kuria East Constituency (Before and After the FPE)

In this section the research dwells on the analysis of the ratio of the pupil to the teacher in Kuria East Constituency for the period 1998 – 2008. The data that was used to calculate the pupil-teacher ratio was obtained from the head teachers who participated in this research. The results are summarised in table 4.6 below.

4.4.1 Pupil -Teacher Ratio during the study period

Table 4.6 Average Number of Pupils per Class

Average	Frequency	Percentage (%)
Below 40	7	8
41 – 60	26	29.5
Over 60	55	62.5
Total	**88**	**100**

The data in table 4.6 indicates that most teachers 55 (62.5%) in Kuria East Constituency handled classes with over 60 pupils compared to 26 (29.5%) teachers who taught classes with between 41 – 60 pupils, while only 7 (8%) teachers taught classes less than 40 pupils. Hence only 8% of the sampled teachers enjoyed the national recommended pupil-teacher ratio of 40:1 or below. From these results, it was inferred that teachers were unable to carry out their teaching duties effectively because of overcrowded classrooms and high pupil-teacher ratio. These findings concurred with the 2005 education sector report which stated that Free Primary Education Policy put pressure on teachers who had to handle large class sizes (UNESCO, 2005).

4.4.2 Pupil -Teacher Ratio during 1998 - 2008

The pupil - teacher ratio during the study period are summarised in table 4.7 below. The study used SPSS research software to generate the teacher-pupil ratio from computations of field data.

Table 4.7 Pupil - Teacher ratio in Kuria East Constituency from 1998 to 2008

Year	No. of Pupils	No. of Teachers	Pupil Teacher Ratio
1998	6458	154	42:1
1999	6774	159	43:1
2000	7101	159	45:1
2001	7247	160	45:1
2002	7298	169	43:1
2003	8592	162	53:1
2004	9159	166	55:1
2005	9313	158	59:1
2006	10012	166	60:1
2007	9817	174	56:1
2008	10224	174	59:1

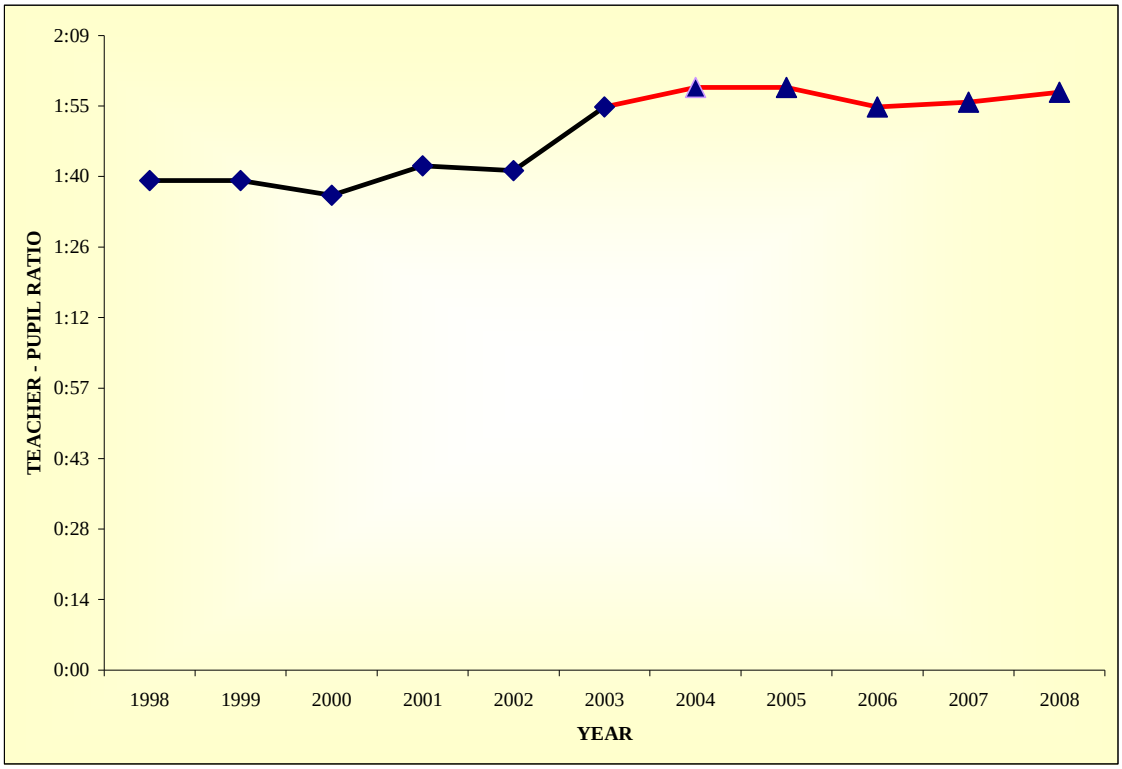
The summary of the results in table 4.7 above was extracted from data in Appendix VII. The pupil - teacher ratio in Kuria East Constituency for the year 1998 stood at 42:1 and rose to 43:1 in 1999 and again to 45:1 in 2000. This ratio remained the same in 2001 but it declined to 43:1 in 2002 but again rose sharply to 53:1 in 2003. The pupil-teacher ratio was again on the rise for the years 2004, 2005 and 2006 hitting highs of 55:1, 59:1, and 60:1 respectively. However the pupil-teacher ratio declined to 56:1 in 2007 but rose again to 59:1. (See appendix VII). The results indicate that indeed the FPE policy brought about increased pupils' enrollment in Kuria East Constituency but this increment was not followed by an increment in the deployment of teachers in the area.

Information gathered from questionnaires that were administered to the head teachers indicated that there were significant discrepancies in the pupil-teacher ratio in the public primary schools in Kuria East Constituency. Before the introduction of FPE there were schools that had a pupil -teacher ratio of 33:1 on the favourable end while others had a pupil - teacher ratio of 51:1 on the unfavourable one. After the introduction of the FPE there was an evident increase in the pupil – teacher ratio with the highest pupil teacher ratio between 2003 – 2008 being 60:1 in 2006 and the lowest pupil teacher ratio being 53:1 in 2003.

Several head teachers indicated that before the FPE the teacher-pupil ratio was considerably high compared to period after the introduction of the FPE. Most respondents reported that management of pupils in the classroom was easier before the FPE than after the introduction of FPE because the roll out of the program meant increase in class sizes. The teachers felt that they were more effective prior to the introduction of FPE than after as they were overworked during the latter period and were never compensated for the extra workload.

The data in table 4.7 was used to generate the teacher-pupil ratio trend during the period under study as illustrated in Fig. 4.5 below.

Figure 4.5 Trend of the Pupil – Teacher Ratio



The period before the introduction of FPE covering 1998-2002 is shown in the first section of the graph depicted in a black line with rhombus points. The variation in the teacher-pupil ratio was fairly small but took a dip in 2003 when it went below 1:50. In the subsequent years after the increase the teacher - pupil ratio has remained relatively low with the lowest ratio of 1:60 recorded in 2006.

Fig. 4.5 shows that the teacher-pupil ratio remained stable from 2003 after the introduction of Free Primary Education. This is an indication that pupil enrolment has been constant, whereas deployment of extra teachers to the constituency has not increased despite the large number of pupils. This is a clear indication that the teachers are overwhelmed as they now have to handle more pupils.

4.4.3 Teacher-Pupil Ratio in the Target Schools as of 2012

Table 4.8 shows that 26% of the sampled schools had a pupil-teacher ratio of 51:1 – 55:1 in the year 2012. Another 16% schools had a pupil-teacher ratio of 66:1, while another 16% schools had a pupil teacher ratio of 56:1-60:1 and yet another 16% had a pupil teacher ratio of 61:1 – 65:1.

Table 4.8 Schools' Pupil - Teacher Ratio in 2012

Pupil :Teacher Ratio	Number of Schools	Percentage (%)
31 :1 – 35:1	2	11
36:1 - 40:1	1	5
41:1 - 45:1	0	0
46:1 -50:1	2	11
51:1 -55:1	5	26
56:1 -60:1	3	16
61:1 -65:1	3	16
66 and higher	3	16
Total	**19**	**100**

Further 11% of the sampled schools had a pupil teacher ratio of 46:1-50:1, while 5% of the schools had a pupil teacher ratio of 36:1 – 40:1. Only 11% of the schools had a pupil-teacher ratio of 31:1-35:1. From the above tabulation we find that the number of schools that had the recommended pupil teacher ratio of not more than 40:1 was only 16%. The above table has been derived from Appendix V.

Hubball and Laria (2008) states that when a class is large, teachers tend to use lecture method in teaching and thus dominate the situation and this gives students little contact with the teacher. According to Eshiwani (1993) UPE led to high enrolment of pupils in primary schools. This created a shortage of teachers and there was a declining ratio of

teachers to pupils which had a negative effect on the quality of education as well as performance. Eshiwani (1993) further states “School factors such as streaming and class size influence achievement in school. The recommended number of pupils is 35, when the size is increased to seventy or eighty there will be a negative effect on learning and teaching”.

The findings of this study are in line with those of Mugo (2006) that revealed that the government policy to freeze the employment of teachers except in replacement of those teachers who leave the service either by natural attrition or other reasons, has a negative effect on teacher - pupils ratio in many schools (Mugo, 2006). This is the case in Kuria East Constituency where there is currently very low teacher – pupil ratio which has a negative effect on the teacher effectiveness in the classroom.

By the time of the study, the number of teachers for the sampled school was 196 while the pupil population was 11,101.

This gives a pupil teacher ratio of $\frac{11,101}{196} = 56.6:1 \approx 57:1$

Therefore, to achieve the recommended UN standard of Pupil Teacher Ratio of 40:1

$\frac{11,101}{40}$ -196 teachers would need to be hired.

$= 278 – 196$

$= 82$ more teachers need to be hired.

4.5 Average Performance of Primary Schools in K.C.P.E in Kuria East between 1998 – 2008

Appendix VI shows the average performance of primary schools in K.C.P.E in Kuria East between the years 1998 to 2008. Before the introduction of FPE the schools showed a mixed performance with some schools improving their KCPE mean score and others were declining. But no sooner was FPE introduced in 2003 a whopping 31.6% (6) of the schools immediately dropped in performance. However, there seems to be a steady improvement, since then.

All the head teachers informed the study that after the introduction of FPE in 2003 school administrations were faced with a myriad of challenges that greatly disoriented the teaching staff which in turn influenced the output of the teachers. Some of the schools did not even have enough facilities in the first place and some pupils had to be taught outside the classroom under trees. In one case in Teachers who had specialized in teaching only the upper classes and preparing the standard eight pupils for K.C.P.E were forced to juggle classes with some of them teaching in the lower classes.

Seventy three percent (73%) of the teachers noted that the manner in which the FPE was introduced disoriented their teaching as it created a sudden unexpected surge in the teachers' workload and teaching program. This was made worse by the fact that there were no prior teacher preparations on how they were to handle FPE with issues being tackled as they arose. In the end this negatively affected the teachers' effectiveness leading to dismal performance of candidates.

Several teachers also reported that dismal performance within this period was partly attributed to those who had dropped out of school who decided to join school after school fees were abolished. Some rejoined school in standard 7 and 8 and this negatively contributed to the general performance of the schools.

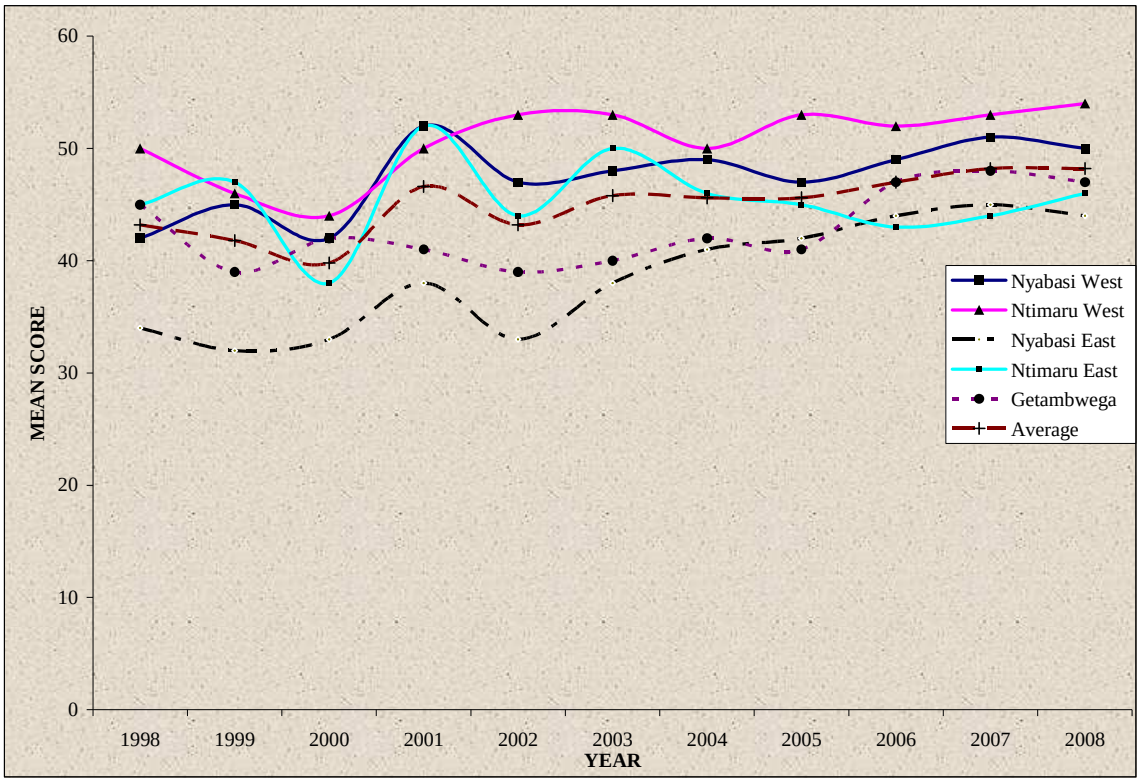
The study also noted that within the year that the schools performed dismally the lowest score was 207 and ranked the highest among the lowest scores during the FPE period. The researcher made a follow up on this and pointed it to the District Education officer. However the D.E.O expressed surprise and stated that there was no reason that could be linked to the performance and added that the reverse should have been the case.

Table 4.9 Ward's Performance in KCPE between 1998 - 2008

Name of Ward	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Mean
Nyabasi W.	42	45	42	52	47	48	49	47	49	51	50	47
Ntimaru W.	50	46	44	50	53	53	50	53	52	53	54	51
Nyabasi E.	34	32	33	38	33	38	41	42	44	45	44	39
Ntimaru E.	45	47	38	52	44	50	46	45	43	44	46	45
Getambwega	45	39	42	41	39	40	42	41	47	48	47	43
Mean	**43**	**42**	**40**	**47**	**43**	**46**	**46**	**46**	**47**	**48**	**48**	

Table 4.9 above indicates the performance of schools in Kuria East Constituency according to the wards where they are located. Ntimaru West Ward ranked as the overall best performing ward in the constituency. Over the period of 11 years, schools in the ward had a mean score of 51. Within the same period schools in Nyabasi West had a mean score 47, Ntimaru East had a mean of 45, Getambwega had a mean of 43 and Nyabasi East had a mean of 39. The trend on these performances is highlighted in figure 4.6.

Figure 4.6 Trend of Primary Schools Performance in K.C.P.E between 1998 - 2008



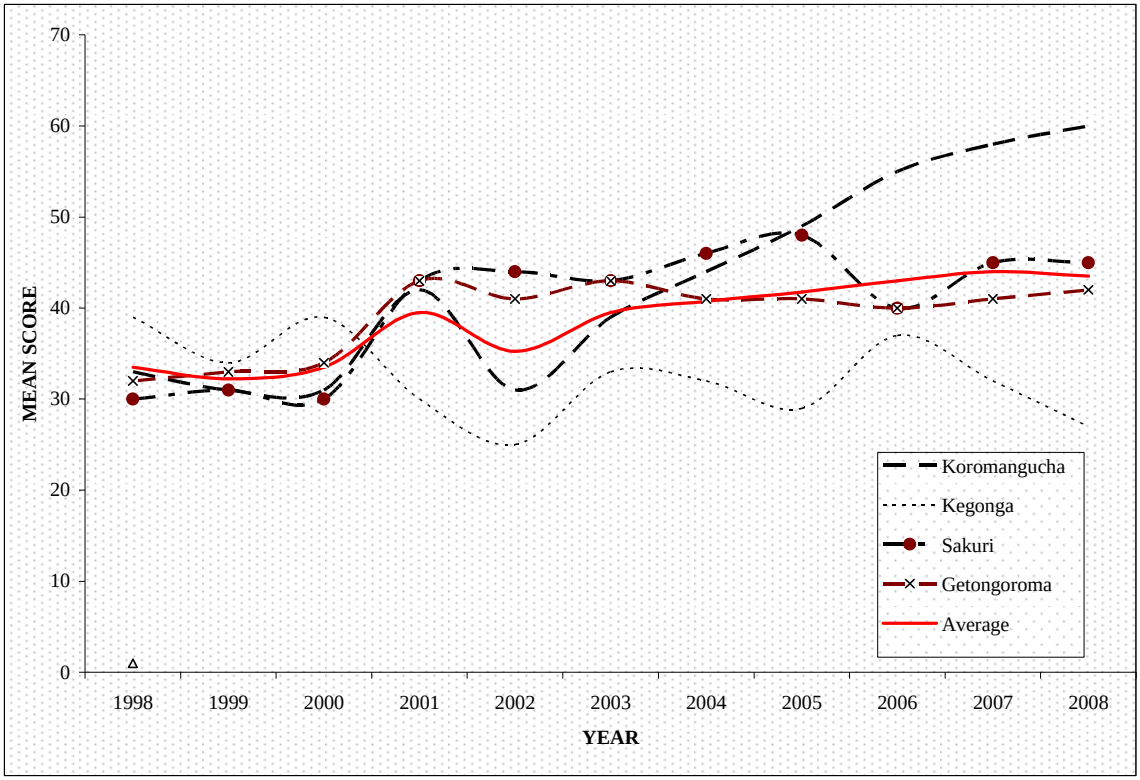
When the 1998 to 2008 scores are combined and analyzed longitudinally, the scores in the entire constituency are found to be dismal, as the mean score is below the average (below 50 marks). The graph however shows that the performance of schools in Ntimaru East and Ntimaru West was steadily improving.

4.5.1 K.C.P.E Performance in the Kuria East Constituency per Ward

In addition to analyzing the K.C.P.E performance trends in Kuria East Constituency, the researcher went ahead to analyze the performance according to the five wards under the study.

4.5.1.1 Nyabasi East Ward K.C.P.E Performance Trends (1998-2008)

Figure 4.7 K.C.P.E Performance Trends in Nyabasi East Ward



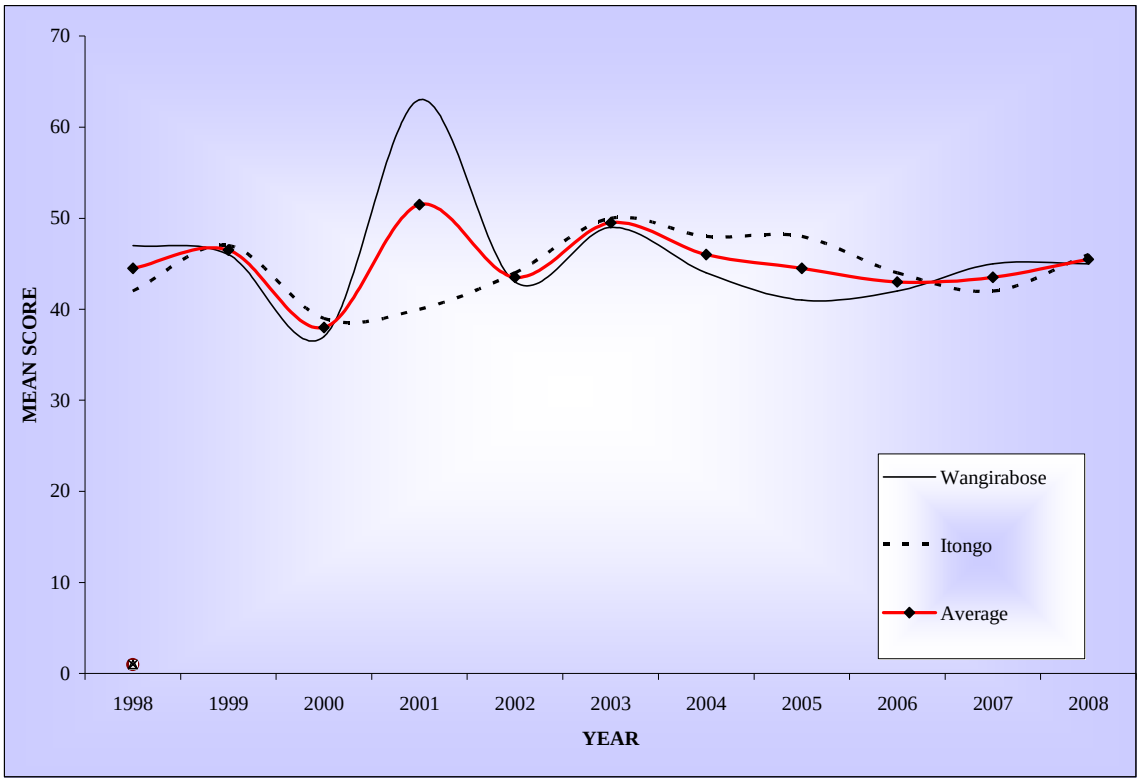
As seen on Figure 4.7, four of the schools in Nyabasi East recorded better performance over the years. Of significance is the perfomance of the schools in the 2001 KCPE examination. Apart from Kegonga, all the other three school showed a remarkable improvement in perfomance for the year 2001. The study attributes this improvement to the change of mode of examination where KCPE was ranked from seven subjects to five subjects. This study notes that reduced workload on the part of the pupils could have contributed to the remarkable improvement in perfomance. Best performance in the ward was recorded in Koromangucha in 2008 (60%) while the worst performance was in Kegonga in 2005 (29%).

After FPE, most schools performance in the ward steadily improved. Koromangucha Primary School, which was also the best perfoming school in the ward with an average of 43%, witnessed a continuous increase in performance after the intoduction of FPE. Kegonga Primary School on the other hand has had a flactuating performance trend during the period under study. It was also the worst perfoming school with an average of 32.5%. It is interesting to note that the performance of Sakuri and Nguruna Primary Schools improved in spite of the introduction of FPE.

Despite the fact that Nyabasi East had the lowest average pupil- teacher ratio, it is difficult to explain why it had the poorest performance of the five wards (38.5%). This could however be attributed to the fact that there could be a lot of other underlying issues that might affect teaching and learning. Possibly the the frequent tribal clashes between the Kuria people and the Kipsigis on one hand and the with the Maasai on the other hand may have a bearing on pupils performance in KCPE in this ward that borders the two counties of Bomet and Narok.

4.5.1.2 Ntimaru East Ward K.C.P.E Performance Trends (1998-2008)

Figure 4.8 K.C.P.E Performance Trends in Ntimaru East Ward



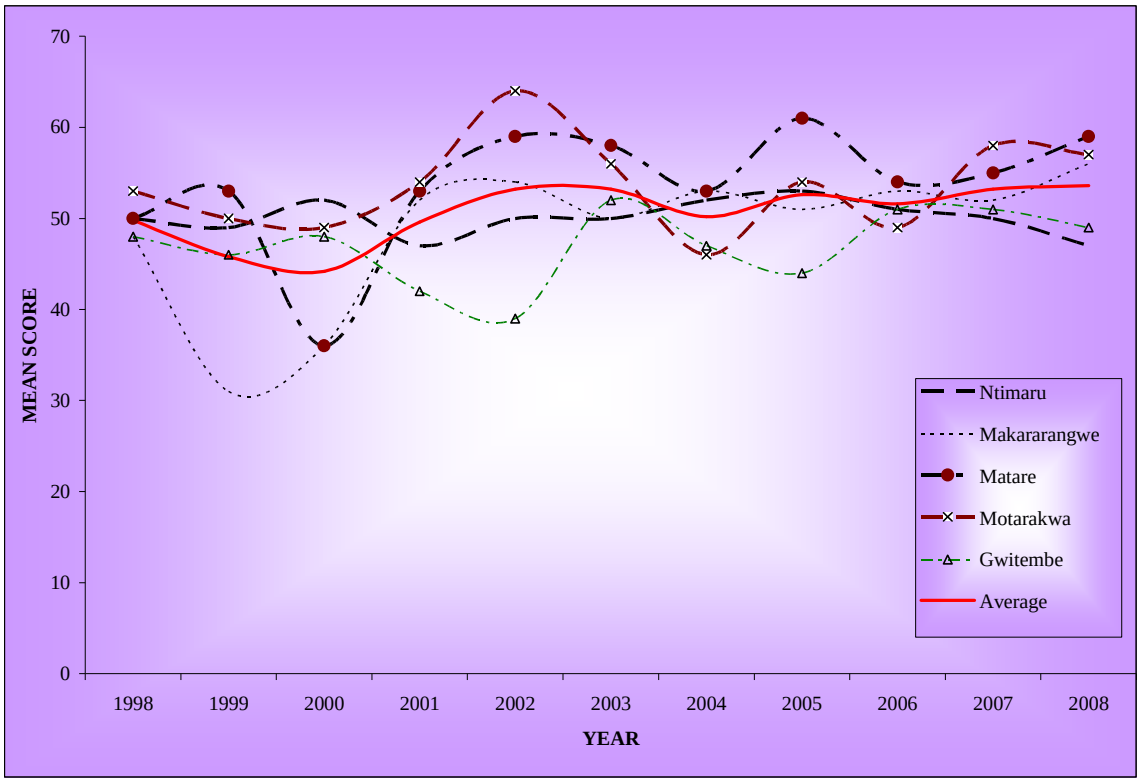
Performance trends in K.C.P.E in Ntimaru East have averaged the same for all the schools in the ward. The schools in the ward had the best average performance in 2001 with an average of 52%. The worst performance in the ward was recorded in 2000 with an average of 38%. The dismal performance in the ward in 2000 could be attributed to the fact that the Bwirege clan whose members reside in the ward had a major circumcision ceremony in 2000 and most of the pupils who sat for the KCPE exam in the year participated in that ritual.

On examining the individual schools the research found that Wangirabose was the overall best performing school in the ward with an average of 45.64% during the period under investigation. The school recorded its best performance in 2001 posting an average of

63% while its worst performance was in 2000 when it attained an average of 37% which was consistent with the poor performance in the ward. Itongo primary school had an average performance of 44.55% during the study period. It recorded its highest performance in 2003 at 50% and its lowest performance in 2000 at 39%. It is important to note that with the introduction of Free Primary Education, performance slightly decreased in all the sampled schools in the ward. Between 2004 and 2007, the schools' performance dropped but improved slightly in 2008. See Fig. 4.8 above.

4.5.1.3 Ntimaru West Ward K.C.P.E Performance Trends (1998-2008)

Figure 4.9 K.C.P.E Performance Trends in Ntimaru West Ward

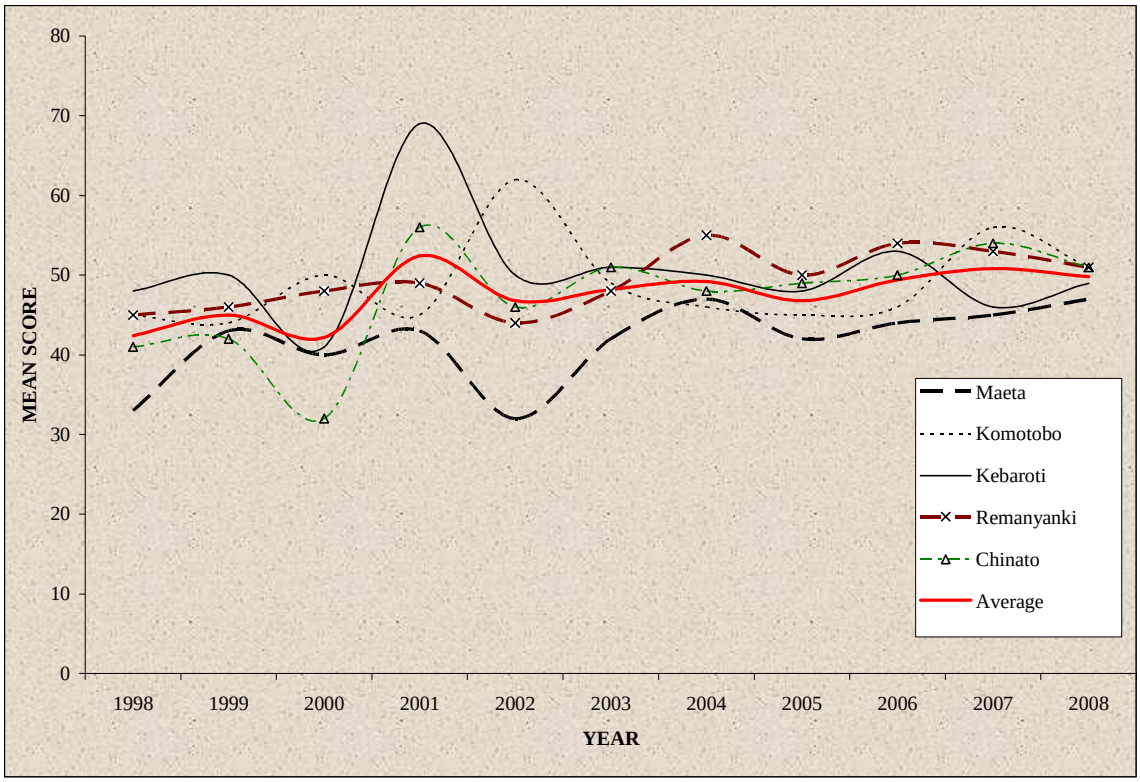


From the graph in Fig. 4.9 above performance in Ntimaru West ward primary schools has shown no major variation but witnessed a drop in the years leading up to 2003, when FPE was introduced. The schools in the ward recorded the best average performance during

the study period (50.7%). The ward's best performance was witnessed in 2008 (54%) while the worst performance was recorded in 2000 at 44%. The best score in the ward was recorded at Motarakwa Primary School in 2002 (64%) while the worst performance during the period under study was at Makararangwe Primary School in 1999 at 31%. The overall best performing school in the ward was Matare with an average score of 53.7%. The study was informed that the good performance in this school was attributed to continuous good leadership. The worst performing school in the ward was recorded by Gwitembe Primary School with an average of 47%. This could be attributed to the fact that the school is located in the area neighboring Trans Mara District, an area that has occasionally experienced inter-tribal wars.

4.5.1.4 Nyabasi West Ward K.C.P.E Performance Trends (1998-2008)

Figure 4.10 K.C.P.E Performance Trends in Nyabasi West Ward

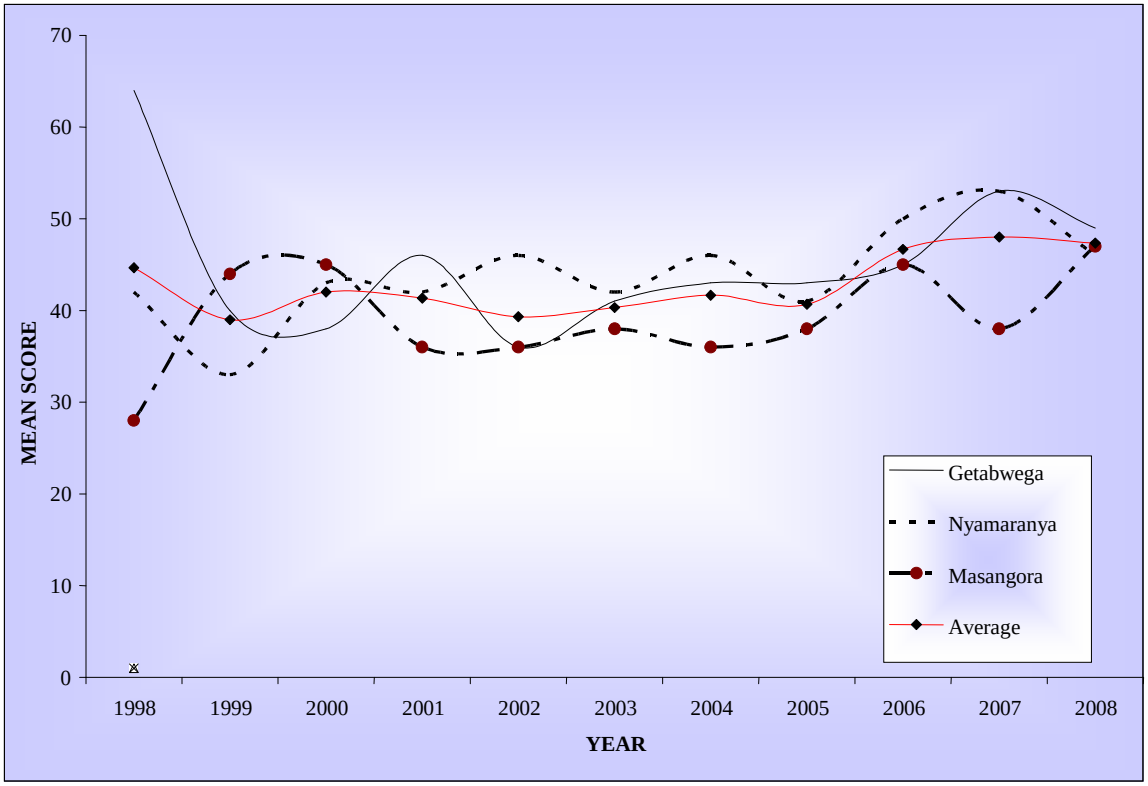


As seen in Fig. 4.10 Nyabasi West Ward was the second best performing ward with an average score of 47.5%. The graph also shows that the performance of the schools in the ward has been fluctuating. The introduction of FPE saw more than 70% of the schools performance decline.

The best average performance in the ward was witnessed in 2001 (52%) the year examinable subjects in KCPE were reduced from seven to five. The worst performance in the ward was recorded in 2000 (42%). The best performance recorded during the study period was in 2001 at 69% in Kebaroti Primary. Worst performances in the ward were at 32% recorded in Chinato and Maeta Primary Schools in 2000 and 2002 respectively. The best performing school in the ward was Kebaroti Primary School with an average score of 50.5% while the worst performing school was Maeta with an average score of 37.7%. It is important to note that performance in Komotobo Primary School has been fairly good compared to the other schools in the ward despite the fact that it is an integrated school.

4.5.1.5 Gokeharaka/Getambwega Ward K.C.P.E Performance Trends (1998-2008)

Figure 4.11 K.C.P.E Performance Trends in Gekeharaka/Getambwega Ward



As shown in Fig. 4.11 the schools' K.C.P.E performance trend in Getambwega Ward oscillated at around the national average of slightly below a mean score of 50%. This performance got a knock in 2002 and got worse in 2003 after the introduction of FPE shortly before picking again in 2006. With the exception of Masangora primary school whose performance was always below the Ward's average the performance of the rest of the sampled schools remained stable thereafter. Getambwega ward was ranked fourth out of the five wards with an average score of 42.8%. The best performing school in the ward was Getambwega Primary School with a score of 45.3% while the worst performing school was Masangora with a score of 39.2%. Best score during the study period was 64% recorded by Getambwega in 1998 while the worst performance was at 28% recorded

in Masangora in the same year. Nyamaranya and Masangora Primary Schools had a fluctuating performance since the introduction of FPE. Masangora primary school's performance was always below the Ward's average.

4.5.2 Spearman's Correlation between KCPE performance and Pupil- teacher ratio

Bivariate correlation analysis was used to examine this hypothesis and to determine the degree of relationship between the KCPE mean score and the pupil-teacher ratio. Considering that the data for these two variables are not at the interval or ratio level of measurement, the Spearman's Rho Correlation was chosen. Charles Spearman's rank correlation coefficient is quite simply the linear correlation of the ranks of the observations and a measure of association for ordinal variables. It is quite simply the linear correlation of the sample ranks (Spearman, 1904).

Table 4.10 Spearman's Rho Correlation between the KCPE Mean Scores and Pupil Teacher Ratio

Correlations

			KCPE mean Score	Pupil- Teacher ratio
Spearman's rho	KCPE mean Score	Correlation Coefficient	1.000	-.307**
		Sig. (2-tailed)	.	.010
		N	19	19
	Pupil - teacher ratio	Correlation Coefficient	-.307**	1.000
		Sig. (2-tailed)	.010	.
		N	19	19

**. Correlation is significant at the 0.01 level (2-tailed).

As shown in table 5.8.1 above the results give a negative significant correlation between the mean score in KCPE and the pupil-teacher ratio that is, the higher the pupil-teacher ratio, the lower the KCPE mean score.

4.5.3 Pearson Correlation Product Moment (r) for School Size and KCPE Performance (1998 – 2008)

Table 4.11 Pearson Correlation Product Moment (r) for School Size and KCPE Performance (1998 – 2008)

SCHOOL SIZE		AVERAGE SCORE IN KCPE										
		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
1998	Pearson Correlation Sig. (2-tailed) N	0.27 0.191 19										
1999	Pearson Correlation Sig. (2-tailed) N		.807** 0 19									
2000	Pearson Correlation Sig. (2-tailed) N			.790** 0 19								
2001	Pearson Correlation Sig. (2-tailed) N				.640** 0.001 19							
2002	Pearson Correlation Sig. (2-tailed) N					.412* 0.041 19						
2003	Pearson Correlation Sig. (2-tailed) N						.541** 0.005 19					
2004	Pearson Correlation Sig. (2-tailed) N							.615** 0.001 19				
2005	Pearson Correlation Sig. (2-tailed) N								.680** 0 19			
2006	Pearson Correlation Sig. (2-tailed) N									0.162 0.44 19		
2007	Pearson Correlation Sig. (2-tailed) N										.716** 0 19	
2008	Pearson Correlation Sig. (2-tailed) N											.407* 0.043 19

*. Correlation is significant at the 0.05 level (2-tailed).**. Correlation is significant at the 0.01 level (2-tailed)

A correlation is the existence of a relationship between two or more variables. This implies that if a modification in one of the variables causes an alteration in the other, the variables are correlated. As indicated earlier, one of the major impacts of FPE was an increase in the enrollment of pupils into primary schools which had an impact on the school size. Having this in mind the researcher used the Pearson Correlation r product-moment to determine the relationship between two quantitative and continuous variables; class size and school performance.

Table 4.11 gives the results of the analysis for the 11 years (1998 – 2008). The results indicate that there exists a significance correlation between the class size and the school performance. Out of the 11 years that data was gathered, there existed significant correlation at 0.05 (2-tailed) in 9 of the years. In other words 82% of the cases gave an indication that there exist a significant correlation between the school size and school performance. The study therefore makes a conclusion that the size of the school and the school performance are correlated.

4.6 Teacher Teaching Methods Before and After FPE

4.6.1 Teachers perceptions on teaching Standards

Table 4.12 Teachers Perceptions on Teaching Standards

Response	Frequency	Percentage (%)
Greatly Improved	24	27.3
Not changed	22	25.0
Has declined	42	47.7
Total	**88**	**100**

As illustrated in table 4.12 above most of the teachers felt that the introduction of FPE has led to the decline in the teaching standards in the schools. Forty seven point seven percent (47.7%) respondents perceived the standards of teaching to have declined compared to 27.3% who felt that standards had improved and 25% who felt that standards had not changed.

Most teacher respondents indicated that with increased class sizes they had resulted to the lecture method as the main method of communicating to their pupils. They said that prior to the introduction of FPE they were able to adopt various teaching methods as classes were small. They added that many classes were now overcrowded and that has limited the movement of teachers within the classroom forcing many of them to resort to the lecture method. The respondents also complained that they no longer marked pupils assignments and cannot give random quizzes like they did before the introduction of FPE because of the increased number of pupils. The combination of these factors has negatively affected the quality of teaching in many of the public primary schools in Kuria East Constituency.

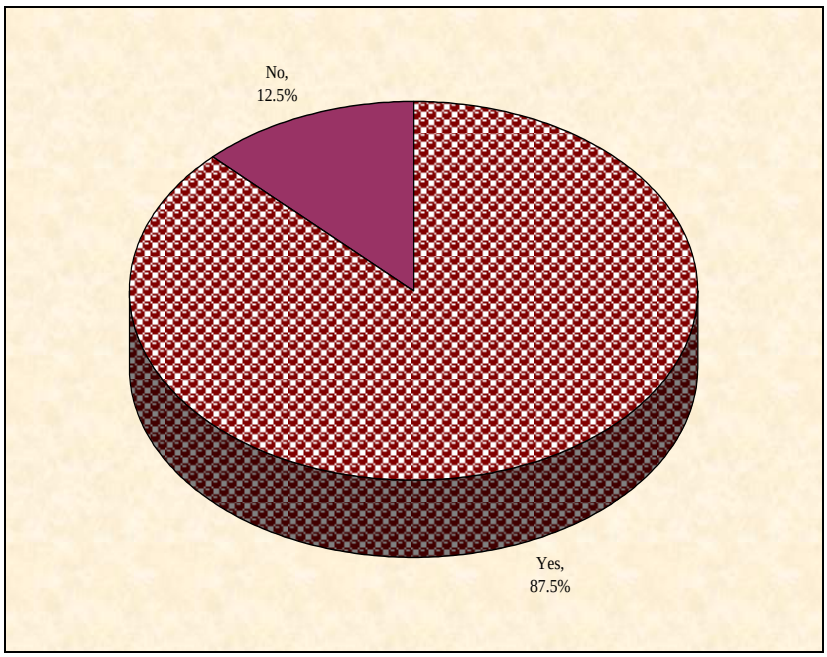
The respondents informed this study that due to the large class sizes, they have resorted to having pupils exchange their assignments and mark for each other while the teacher reads out the answers. As a result individualized training for weak students has declined and remedial classes have come to an end.

4.6.2 The Influence of FPE on Teacher Teaching Methods

As indicated in Fig. 4.12 below 87.5% of the teacher respondents indicated that the introduction of FPE influenced their teaching methods. The remaining 12.5% respondents

indicated that the introduction of FPE did not have an influence on the teaching methods they chose. The teaching methods used by a teacher could either positively or negatively influence the learning outcomes of pupils. The study observed that the introduction of FPE policy disrupted how teachers organized their work. And as shown in Fig. 4.12 below this meant 87.5% respondents were of the view that they were no longer able to carry out their daily teaching duties as expected.

Figure 4.12 Presence of Influence of FPE on Teacher Teaching Methods



4.6.3 Impact of FPE on Teachers Performance

In the last section we examined the influence of FPE on the kind of teaching methods that the respondents adopted as a result of the increased number of pupils in a class. In this section the study examines the teachers' perceptions on why they felt that FPE had interfered with their work. A summary of the feelings of the teachers about some of the effects of Free Primary Education is presented in table 4.13 below.

Table 4.13 shows that 88.6% of the teachers stated that overcrowding in classes affected their teaching effectiveness, 84.1% indicated that they overwhelmed by increased workload, 70.5% indicated that they experienced increased demand from pupils, 68.2% said they faced more responsibilities, and 64.8% said they worked for long hours to cope with increased workload. Similarly many teachers 55.7% were of the view that FPE was introduced against a backdrop of inadequate pupils' learning resources.

Table 4.13 Impact of FPE on Teachers Performance

		Response		Total
		Yes	No	
Too much workload	**Frequency**	74	14	88
	(%)	84.1	15.9	100
Too many pupils in class	**Frequency**	78	10	88
	(%)	88.6	11.4	100
Increased Workload	**Frequency**	57	31	88
	(%)	64.8	35.2	100
Increased demand from pupils	**Frequency**	62	26	88
	(%)	70.5	29.5	100
Having more responsibilities	**Frequency**	60	28	88
	(%)	68.2	31.8	100
Longer Working Hours	**Frequency**	57	31	88
	(%)	64.8	35.2	100
Inadequate Learning resources for pupils	**Frequency**	49	39	88
	(%)	55.7	44.3	100
Lack of time for one's self	**Frequency**	52	36	88
	(%)	59.1	40.9	100

The study also found out that increased workload was progressively making the teachers less motivated to teach. They complained that they did not have enough time to complete the syllabus and schedule revision time. They also complained that the number of pupils were too many which made it difficult for pupils' individual attention considering they handled more than 50 pupils per class. The teachers said they no longer gave assignments because they could not mark all of them. Teachers felt frustrated with the government

and were of the view that it was taking them for a ride. They complained that the government was aware of increased enrolment rates but was reluctant to employ more teachers. This study concurs with Nkinyangi's 2005 findings that due to large classes and congestion, teachers were not able to teach effectively and pupils were unable to concentrate for learning.

Eight (32%) of the head teachers complained of increased cases of indiscipline in schools especially among the newly enrolled and over-age pupils. This was the case at Nyamaranya and Makararangwe Primary Schools. The head teachers agreed that these cases of indiscipline were seen to demotivate the teachers as corporal punishment has been abolished. Teachers complained that guidance and counseling as a method of addressing indiscipline was not possible for classes with more than 50 pupils. Moreover, guidance and counseling departments had not been established in any of the sampled schools.

In most cases the morale of the teachers in the sampled schools was even more affected by the limited space of their staffrooms. Most of these staffrooms were non-finished semi-permanent buildings with poor-lighting. This low morale translated to poor classroom performance among teachers.

Head teachers viewed lack of proper training and preparedness on the teachers as a hindrance to effective teaching. They noted that teachers were never prepared to effectively manage large classes let alone communicate effectively with every pupil. They were ill-equipped to deal with a double-shift system that forced majority teachers handle both morning and afternoon shifts. Most teachers were already tired by lunch hour

and could not effectively teach pupils in the afternoon. Several teachers absconded classes while others told the pupils to read on their own and in the end most of the afternoon classes suffered immensely. The school administrators were of the opinion that FPE was only interested in the quantity of the learners but not on the quality of teaching.

From the interviews with the education officers and the quality education officers, the study found out that schools were no longer administering external mock exams, especially for class 8 K.C.P.E candidates. This was evident from the fact that in Kuria East Constituency there was no emphasis on the quality of education from the Ministry officials and such very little supervision was being done to ensure that the quality of teaching was up to standard.

4.6.4 Influence of FPE on Expected Teacher Duties

According to Creemers (1994), a teacher's behavior in the classroom is crucial in measuring their effectiveness. In this section the study sought to find out the impact of FPE on other teachers duties such as formulation of work plans and scheme of works which are aspects of clear goal setting as outlined by Creemers (1994). The findings are summarized in table 4.14 below. The findings show that with the introduction of FPE the performance of teachers in other expected duties significantly changed in terms of the number of teachers who adhered to the tasks. Before the introduction of FPE all the teachers drew lessons plans and nearly all of them also prepared schemes of work. With the introduction of FPE the number of teachers who prepared work plans and schemes of work fell to 88.6% and 89.8% respectively. Before FPE all the teachers used to mark their pupils assignments but these fell to 17% with the introduction of FPE. While 98.9% of the teachers gave tests to their pupils before introduction of FPE, only 73.9% did so

after introduction of FPE. The trend was the same for the teachers who marked the pupils register with 98.9% adhering to the same before FPE compared to 39.8% after FPE.

Table 4.14 Influence of FPE on Expected Teacher Duties

Expected Teacher Duties		Before FPE	After FPE
Drawing lesson plan	Frequency	88	78
	%	100	88.6
Drawing scheme of work	Frequency	87	79
	%	98.9	89.8
Marking pupils' assignments	Frequency	88	15
	%	100	17
Going through pupils' notes	Frequency	83	26
	%	94.3	29.5
Giving assignments	Frequency	85	75
	%	96.6	85.2
Giving tests	Frequency	87	65
	%	98.9	73.9
Providing personalized attention to every pupil	Frequency	79	15
	%	89.8	17
Marking the register	Frequency	87	35
	%	98.9	39.8
Having discussions/debates in class	Frequency	81	65
	%	92	73.9
Inspecting every pupils' cleanliness	Frequency	42	12
	%	47.7	13.6

Results in table 4.14 also indicate that the percentage of teachers providing personalized attention to every pupil dropped from 79% before FPE to 15% after FPE. The number of teachers who encouraged debates and discussions in the classrooms also declined from 92% to 73.9% after the introduction of FPE.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter gives the summary of the study, including summary of findings, conclusions and makes recommendations linking the results and findings to the general literature and its implications. The aim of the study was to determine the impact of Free Primary Education on teachers' effectiveness in Kuria East Constituency.

5.1 Summary

The United Nations Human Rights Charter affirms that education is a basic human right which should be provided to all people. Article 26 of the Declaration of Human Rights states that everyone has the right to education and that education shall be free, at least at the fundamental and elementary stages. The article further states that elementary education shall be compulsory (UNESCO, 2005). In Kenya, efforts to ensure that people access free basic education were not successful until 2003 when the NARC administration introduced the Free Primary Education program in fulfillment of one of its election pledges. The introduction of the Free Primary Education however was marred with a lot of difficulties. While on one hand it was laudable that it enabled school aged non-school going children access free primary school education, it on the other hand introduced a lot of new challenges in the education system. The challenges that stood out included increased pupil-teacher ratio and overcrowded classrooms which greatly impacted on the pupils' learning outcomes (UNESCO, 2005). These effects of FPE hampered classroom teaching in general and consequently teachers could not effectively carry out their mandate.

These difficulties that characterized the FPE program negatively affected teacher effectiveness in providing professional quality output. An appraisal on Free Primary Education program by UNESCO in 2005 acknowledged that teachers played a fundamental role in the implementation of FPE but fell short in discussing the impact of FPE on teacher effectiveness. The current study was provoked by the need to explore teacher effectiveness as it has a bearing on the academic performance of pupils.

The purpose of this study was to assess the impact of the FPE program on teacher effectiveness in Kuria East Constituency. The study period was confined between 1998 and 2008. So as to make informed conclusions, the study focused on four major objectives, namely: pupil enrolment trends before and after the introduction of FPE; teacher-pupil ratio before and after the introduction of FPE; teaching methods and performance of expected teacher duties before and after the introduction of FPE; and KCPE performance trends before and after FPE. The study was limited to public primary schools in Kuria East Constituency.

The study carried out a literature related to Free Primary Education in Kenya and beyond. The literature covered the background of Universal Primary Education, free primary education in Kenya, enrolment trends after introduction of free primary education, effects of class size on teacher-pupil ratio and pupil assessment as well as teaching and learning methods employed in the classrooms. The measure of teacher effectiveness used in previous studies was also reviewed and so was the KCPE performance after the introduction of FPE program. The study's theoretical framework focused on perspectives that deal with teacher effectiveness, operation of systems and efficacy of individuals. The three theories that supported the study were: Capital Theory of Effectiveness and

Improvement, the Systems Theory and the Self-Efficacy Theory. The conceptual framework employed by the study focused on the study objectives and used the three theories stated above to explain the conceptual framework. The study conceptual framework had Free Primary Education policy as the intervention that was introduced. The Independent variables were, increased enrolment, teaching methods of teachers and pupil-teacher ratio. The dependent variable was the pupil performance in KCPE which was also the variable used in the study to determine the effectiveness of teachers.

The methodology explored the study location, research design, target population, sampling procedures and sample size. The chapter also contains descriptions of the research instruments and how they were tested to ensure reliability and validity. Procedures relating to the collection and analysis of data are also discussed in this chapter. The study was conducted in Kuria East Constituency that had a total of 68 public primary schools. The study used mixed methodology that utilized both qualitative and quantitative research methods which ensured that a comprehensive account of the enquiry was achieved (Creswell, 2003). The targeted population for this study was all the head teachers (68), teachers (637) and constituency education officers as the key informants. Several sampling methods were used to get the sample for the study.

Stratified random sampling was used to identify 25 schools to take part in the study. Purposive sampling was used to target schools that had been in existence during the study period (1998-2008). Finally, simple random sampling was used to identify the teacher respondents which guaranteed that every teacher in the schools had an equal chance to be selected. The study used three instruments for data collection. These were the head teacher questionnaire, teacher questionnaire and an interview schedule for education

officers in the constituency. The use of the three instruments allowed for data triangulation technique to improve the validity of the findings. The use of the combined research instruments also compensated on the strengths and weaknesses of each instrument (Creswell, 2003).

Data generated from the study was both quantitative and qualitative. Quantitative data was analyzed with the help of SPSS version 17 and content analysis was used to analyse qualitative data. Analyzed data was summarized in frequency and percentage tables, graphs, charts and figures.

Findings of this study showed that there are many challenges that hampered teachers' effectiveness in Kuria East Constituency of Migori County. The summary of the findings are centered on the four objectives of the study.

The abolition of school fees encouraged parents to enroll their children in public primary schools. In fact the FPE policy has been billed as a pro-poor policy because of how it benefited poorer areas of the country, with most of them registering over 100% enrollment since 2003. According to Republic of Kenya (2005), the national Gross Enrolment Rate (GER) in public primary schools in the country rose to 98.1% in 2003 and to 101.5% in 2004. With the introduction of FPE the schools within Kuria East Constituency experienced increased enrolment. The details of this development are fully captured in the head teachers' questionnaire in Appendix VII. Additionally increased enrollment resulted in low teacher-pupil ratio which adversely affected teachers' effectiveness, as illustrated in Appendices VI and VII.

All teachers' respondents felt that the introduction of Free Primary Education influenced the type of methods they used for instruction. The teachers stated they were forced to resort to the lecture method as the mode of instruction and hardly used pupil oriented teaching methods because the class sizes were too large. Unlike before the introduction of FPE whereby teachers could personally mark assignments and offer guidance to individual pupils, free learning came with too much workload and demoralization for the teachers. The study found that overcrowded classrooms interfered with the teachers' movement around the classroom making it difficult for them to monitor pupils' work. The teachers felt that FPE was haphazardly introduced with little preparation going for its implementation. The teachers consider themselves central to the success of the FPE program and as such the government should have taken time to prepare them and provide more facilities to cater for the increased enrolment.

Findings for this research indicated that mean KCPE performance among the sampled schools in Kuria East Constituency did not show a decline in spite of the introduction of FPE (Appendix VII). Rather there has been a steady improvement even after the introduction of free learning. The slight improvement concurs with Opiata (2010) who observed that statistics for the 2009 KCPE results showed that the improvement in the performance of the primary school examination in Kenya had slowed since 2003. Teachers in Kuria East Constituency attributed this improved performance to individual pupil competition rather than improved methods of teaching. All teachers' respondents complained that the teaching methods in use were wanting.

The high pupil-teacher ratio in schools within Kuria East Constituency was exacerbated by understaffing. In spite of the increased enrolment which followed the introduction of

free primary learning in 2003, findings for this study established that most of the schools in the constituency did not receive extra teachers meaning that they few teachers were extremely overworked.

The enrolment of over age pupils contributed to class indiscipline, especially in class one, causing more headaches to the overworked teacher. This research found that most parents in the study area no longer take their children for pre-primary schooling thus even making the work of the overworked teacher even more straining. Some teacher respondents handling standard one pupils complained that some of the work they undertook to teach the new pupils was supposed to be done in the early childhood education.

5.2 Conclusions

From the literature review and the findings of this study it can be concluded that the FPE program was a major milestone in the country's education, as it opened doors to children who would have otherwise not accessed education in their lifetime.

Indeed, FPE programs in Kenya and other African countries have recorded mixed results; however, all developing countries should adopt the policy on free primary learning but re-examine the need to improve quality. From the results of this study it can be inferred that pupil enrollment is on an all-time high while teacher deployment to public primary schools remains the same; which has compromised their output.

The findings of this study also indicate that pupils were not assessed as often and adequately as the happened before the introduction of FPE; and this had a negative

impact on their overall performance at school. Large classes also made teachers to prefer the least involving method of assessment so as to avoid huge workloads.

In addition, study findings indicated that teachers felt that the introduction of FPE impacted on their performance in terms of increased workload, increased demand from pupils, longer working hours, all of which led to lack of time for one's self. These stressors at work made the teachers less motivated and in a way affected their self-confidence to execute their duties effectively despite the challenges they faced.

Lastly, the findings of this study indicated that, despite the many challenges associated with FPE, public primary schools in Kuria East Constituency slightly improved their average KCPE scores as detailed in section 4.5. The education officers in the area attributed this improved performance on individual effort of the pupils.

There is no doubt that children learn through concrete rather than abstract experiences. Poor performance by the teachers directly affects the students' performance thereby negating the principle purpose of education. Increase in student enrolment means an increase in the workload and responsibility on teachers. When teachers are faced with such circumstances they resort to teacher-centered teaching methods instead of pupil-centered teaching methods thus compromising the quality of instruction.

In the case of the FPE in Kenya, the situation was more compounded by lack of involvement of stakeholders and lack of preparedness on the part of the government when the program was rolled out in 2003. The teacher was not mentally and physically prepared prior to the program implementation, and this did not change his/her attitude towards large class sizes, affected his/her productivity, and greatly contributed to his/her

teaching effectiveness. If the teachers had been prepared for what was in stock regarding free primary learning they would have seen that other education stakeholders appreciate their role in educational development in Kenya. In turn the teachers would have designed ways to be more effective in their teaching despite the increased workloads.

5.3 Recommendations

Based on the findings and conclusions of this study, the researcher made the following recommendations to make teaching effective in the FPE era:

1. The government should set a minimum threshold of the teacher to pupil ratio and make sure that it is adhered to in all schools in the republic.
2. School administrators should consider having mentorship programs whereby teachers who have taught for longer can mentor new teachers as a way to boost their sense of self-efficacy.
3. Teachers working conditions have greatly deteriorated due to the presence of few teachers in schools. The few available teachers are overworked. The government should employ more teachers to meet this shortfall. This should however be done with the needs of pupils and schools in mind. The exercise should be carried out based on the number of pupils in a school, size of classroom and the subject requirement.
4. Teachers should be taken through in-service courses to train them on effective ways of teaching large and heterogeneous classes.
5. The use of performance contracts for the teachers would also go a long way in gauging the teachers teaching performance vis a vis their workload.

6. The Ministry of Education in collaboration with county education offices to establish a counseling program that provides services to teachers to ensure their emotional and psychological well-being is taken care of so as not to negatively impact on their work output.

5.4 Suggestions for Further Research

From the research findings and conclusions drawn, there are certain aspects of teacher effectiveness in Kuria East Constituency that need further investigation. The following are some of the areas that could be considered for further research:

1. There is need to replicate this study in other border constituencies in Kenya as these results cannot be generalized as true for those constituencies bordering Somalia or Ethiopia, for instance.
2. Research on how cultural practices like circumcision and early marriages impact on the performance of pupils in Kuria East Constituency in the FPE era should be encouraged.
3. There is also need to evaluate the role of the family on pupils performance in school as it could be the underlying factor of poor performance in cases where teachers are indeed effective.

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APPENDICES

APPENDIX I

HEAD TEACHER'S QUESTIONNAIRE

This research is for academic purposes. It will try to determine the effectiveness of primary school teachers in doing their work after the introduction of Free Primary Education. I will be grateful if you can find time to complete the survey as honestly and accurately as possible.

1. Total number of teachers in the school…….
2. Total number of non teaching staff in the school…….
3. State number of streams per class

Class	**Number of streams**
One	
Two	
Three	
Four	
Five	
Six	
Seven	
Eight	

4. Total number of pupils in the school……..

Class	**Number of pupils**
One	
Two	
Three	
Four	
Five	
Six	
Seven	
Eight	

5. How many pupils enrolled in your school in the following years?

Class	**Number of pupils**
1998	
1999	
2000	
2001	
2002	
2003	
2004	
2005	

6. Indicate the total number of pupils in your school in the following years

Year	**Number of pupils in the school**
1998	
1999	
2000	
2001	
2002	
2003	
2004	
2005	
2006	
2007	
2008	

7. Indicate the number of teachers in your school in the following years

Year	**Number of teachers in the school**
1998	
1999	
2000	
2001	
2002	
2003	
2004	
2005	
2006	
2007	
2008	

8. Indicate the average score in K.C.P.E in your school in the following years

Year	**Average scores in K.C.P.E**
1998	
1999	
2000	
2001	
2002	
2003	
2004	
2005	
2006	
2007	
2008	

9. Comment briefly on the effectiveness of teachers in your school in terms of doing their work before and after the introduction the Free Primary Education

(A) BEFORE THE INTRODUCTION ON FREE PRIMARY EDUCATION

……
……
……
……
……
……
……
……
……
……
……

(B) AFTER THE INTRODUCTION ON FREE PRIMARY EDUCATION

……
……
……
……
……
……
……
……
……
……

APPENDIX II

TEACHER'S QUESTIONNAIRE

This research is for academic purposes. It will try to determine the effectiveness of primary school teachers in doing their work after the introduction of Free Primary Education. I will be grateful if you can find time to complete the survey as honestly and accurately as possible.

1. Age

Age (years)	**(tick)**
Below 30	
31-40	
41-50	
Over 50	

2. Sex a. Male [ ] b. Female [ ]

3. Indicate your current academic qualification

Academic qualification	**(tick)**
P1	
Diploma	
BED	
BA/BSC	
BA/BSC with PGDE	
Masters	
Others	

4. How long have you been teaching?

Number of years	**(tick)**
Less than 15 years	
15-20 years	
21-25 years	
Over 25 years	

5. How many years have you taught in your current school?

Number of years	**(tick)**
Less than 5 years	
5-10 years	
11-15 years	
Over 15 years	

6. What grades do you teach?

Grade	**(tick)**
Lower (1-3)	
Upper (4-8	
Both	

7. What is the average number of pupils you teach in a class?

Number	**(tick)**
Below 40	
41-60	
Over 60	

8. How many subjects do you teach?

9. Are you a trained teacher in the subjects you teach?

Yes ☐ No ☐

10. For how long have you been teaching the subject(s) you teach?

a)1 – 3Year ☐ b) 4 – 6 Years ☐ c) 7 – 9 years ☐

d) Over 9 years ☐

11. Rate the following method of evaluation (assessment) according to how frequently you made use of them before and after the introduction of Free Primary Education

(A) BEFORE THE INTRODUCTION OF FPE

Method	Very Frequently	Frequently	Sometimes	Infrequently	Rarely	Never
Test and quizzes						
Examinations						
Oral questions						
Assignment						
Project work						

(B) AFTER THE INTRODUCTION OF FPE

Method	Very Frequently	Frequently	Sometimes	Infrequently	Rarely	Never
Test and quizzes						
Examinations						
Oral questions						
Assignment						
Project work						

12. Rate how frequently you perform(ed) the following before and after the introduction of Free Primary Education

(A) BEFORE THE INTRODUCTION OF FPE

Before introduction of FPE	**Very frequently**	**Frequently**	**Sometimes**	**Infrequently**	**Rarely**	**Never**
Drawing lesson plan						
Drawing scheme of work						
Marking pupils assignment						
Going through pupils' notes						
Giving assignments						
Giving tests						
Providing personalized attention to every pupil						
Marking the register						
Having discussion/debates in class						
Inspecting every pupils cleanliness						
Others (specify)						

(B) AFTER THE INTRODUCTION OF FPE

Before introduction of FPE	**Very frequently**	**Frequently**	**Sometimes**	**Infrequently**	**Seldom**	**Never**
Drawing lesson plan						
Drawing scheme of work						
Marking pupils assignment						
Going through pupils' notes						
Giving assignments						
Giving tests						
Providing personalized attention to every pupil						
Marking the register						
Having discussion/debates in class						
Inspecting every pupils cleanliness						
Others (specify						

13. Below is a list of some materials and resources used or needed in teaching of various subjects. Put a (√)) or (X) to show whether they are available for use in your school

Resource	Available	Not available
KIE Course book		
Teachers guides		
Syllabi		
Maps		
Geometrical sets		
Atlases		
Charts		
Graph Books		

14. With the introduction of FPE, what can you say about the teaching and learning process?

1. Has greatly improved ( )
2. Not much has changed ( )
3. Has declined ( )

15. Give reasons for your answer in question 14.

16. Has of Free Primary Education interfered with your work? Yes ( ) No ( )

17. If yes, what aspects of Free Primary Education have interfered with your work?

Aspects	**(tick)**
Too much workload	
Too many pupils in class	
Not enough time to finish assignment (work)	
Increased demand from pupils	
Having more responsibilities	
Working long hours	
Inadequate learning resources for pupils	
Lack of time for one's self	
Others (Specify)	

18. Has Free Primary Education affected your career commitment? Yes ( ) No ( )

19. If yes, how?

Effect	**Tick**
Feel like quitting	
Feel over-worked	
Always look for excuses to absent myself from work	
Not ready to take other responsibilities in school	
Others (Specify)	

APPENDIX III

INTERVIEW SCHEDULE FOR AREA EDUCATION OFFICER

This research is for academic purposes. It will try to determine the effectiveness of primary school teachers in doing their work after the introduction of Free Primary Education. I will be grateful if you can find time to complete the survey as honestly and accurately as possible

1. Gender Male [ ] Female [ ]
2. What is your highest academic qualification?
   Master's Degree [ ] Bachelor's Degree [ ]
   Diploma [ ] Certificate [ ]
3. What is your professional qualification?
   M. Ed [ ] B. Ed [ ] Dip. Ed [ ]
   Certificate in Ed [ ]
4. For how long have you been an Area Education Officer? …….Years .
5. Have you served elsewhere in this capacity? Yes [ ] No [ ]
6. (a) Have you attended an in-service training concerning Free Primary Education ?
   Yes [ ] No [ ]
   (b) If yes, which one (s)_

7. What can you say about the admission policy with the introduction of Free Primary Education?

8. According to the FPE policy teaching and learning materials are supposed to be disbursed by the government to schools. Is the disbursement in schools in your division satisfactory?
   Yes [ ] No [ ]

9. Do you carry out school supervision on the quality of instruction at classroom level?
   Yes [ ] No [ ]

10. How often do you carry out school supervision of the quality of instruction at classroom level with this large number of FPE?
    Once per term [ ] Twice per term [ ] Many times per term [ ]

11. During your visits, what problems do you diagnose that teachers of FPE face?

12. How would you rate the K.C.P.E performance trends with the introduction of Free Primary Education?

Good [ ]
Satisfactory [ ]
Average [ ]
Below Average [ ]

13. As an Area Education Officer, what measures do you think should be taken to improve teacher effectiveness?

APPENDIX IV

LIST OF PUBLIC PRIMARY SCHOOLS IN KURIA EAST CONSTITUENCY BY WARD

Ntimaru East Ward	
Itongo Pr. School	Surveyed
WangirabosePr, School	Surveyed
Taragai Pr. School	
Siabai Pr. School	
Nyankongo Pr. School	
Minyere Pr. School	Surveyed
Makonge Pr. School	
Ntimaru West Ward	
Ntimaru Pr. School	Surveyed
Makararangwe Pr. School	Surveyed
Matare Pr. School	Surveyed
Kwibancha Pr. School	
IgenaItambe Pr. School	
Motarakwa Pr. School	Surveyed
Bongebo Pr. School	
Kohero Pr. School	
Gwitembe Pr. School	Surveyed
Kwiho Pr. School	
Mutiniti Pr. School	
GibomweNur. School	
Nyabasi East Ward	
Nyamagenga Pr. School	
Koromangucha Pr. School	Surveyed
Kugitimo Pr. School	
Nyakehomo Pr. School	
Kegonga Pr. School	Surveyed
Nyamanche Primary. School	
Sakuri Primary. School	Surveyed
Nyamagongwi Pr. School	
Nguruna Pr. School	Surveyed
Biasumwi Pr. School	
Girigiri Pr. School	
Getongoroma Pr. School	Surveyed
Kwigena Pr. School	
Nyamotobe Primary School	
Nyabasi West Ward	
Gibarori Pr. School	
Kendege Nur. School	

Nyaitara Pr. School	
Maeta Pr. School	Surveyed
Sanchawa Pr. School	
Nyabikongori Pr. School	Surveyed
Komotobo Pr. School	Surveyed
Kemakoba Pr. School	
Muswero Pr. School	
Nyaroha Pr. School	
Tebesi Pr. School	
Kionyo Pr. School	
Kebaroti Pr. School	Surveyed
Remanyanki Pr. School	Surveyed
Nyabosongo Centre	
KomoramaNur. School	
KebarisiaNur. School	
Chinato Pr. School	Surveyed
St. Cecilia Kegonche Pr. School	Surveyed
Kebore Pr. School	
Gekeharaka/Getambwega Ward	
Gokeharaka Pr. School	
Ihore Pr. School	
Nyamaranya Pr. School	Surveyed
NgukuMahando Pr. School	Surveyed
Nyamotambe Pr. Pr. School	
ChachaMarwa Pr. School	
Masangora Pr. School	Surveyed
Getambwega Pr. School	Surveyed
Simbori Pr. School	
Tungaini Pr. School	
Gureta Pr. School	
Kubinto Pr. School	
Wisdom Pr. School	Surveyed

APPENDIX V

Raw Data Sheets of the Calculation of the Teacher Pupil Ratio by the time of the Study

Name of Primary School	No. of Teachers	No. of Pupils	Pupil: Teacher Ratio
Komotobo	10	306	31
Kebaroti	11	350	32
Wisdom	9	291	32
Matare	13	505	39
Getongoroma	10	470	47
Nguruna	12	580	48
Koromangucha	11	556	51
St. Cecilia Kegonche	13	658	51
Remanyanki	8	415	52
Kegonga	11	575	52
Chinato	11	577	52
Makararangwe	13	703	54
Mutarakwa	12	681	57
Nyabikongori	13	752	58
Wangirabose	14	810	58
Sakuri	8	476	60
Minyere	9	558	62
Maeta	11	702	64
Nyamaranya	8	512	64
Ntimaru	12	784	65
Getambwega	8	540	68
Masangora	9	628	70
Itongo	9	630	70
NgukuMahando	9	636	71
Gwitembe	12	940	78

APPENDIX VI
KCPE MEAN SCORE OF THE SCHOOLS SURVEYED (1998 – 2008)

Name of Primary School	YEAR										
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
NYABASI WEST WARD											
Maeta	33	43	40	43	32	42	47	42	44	45	47
Komotobo	45	44	50	45	62	49	46	45	46	56	51
Kebaroti	48	50	41	69	50	51	50	48	53	46	49
Remanyanki	45	46	48	49	44	48	55	50	54	53	51
Chinato	41	42	32	56	46	51	48	49	50	54	51
Average	**42**	**45**	**42**	**52**	**47**	**48**	**49**	**47**	**49**	**51**	**50**
NTIMARU WEST WARD											
Ntimaru	50	49	52	47	50	50	52	53	51	50	47
Makararangwe	48	31	36	52	54	50	53	51	53	52	56
Matare	50	53	36	53	59	58	53	61	54	55	59
Motarakwa	53	50	49	54	64	56	46	54	49	58	57
Gwitembe	48	46	48	42	39	52	47	44	51	51	49
Average	**50**	**46**	**44**	**50**	**53**	**53**	**50**	**53**	**52**	**53**	**54**
NYABASI EAST WARD											
Koromangucha	33	31	31	42	31	39	44	49	55	58	60
Kegonga	39	34	39	30	25	33	32	29	37	32	27
Sakuri	30	31	30	43	44	43	46	48	40	45	45
Getongoroma	32	33	34	43	41	43	41	41	40	41	42
Average	**34**	**32**	**33**	**38**	**33**	**38**	**41**	**42**	**44**	**45**	**44**
NTIMARU EAST WARD											
Wangirabose	47	46	37	63	43	49	44	41	42	45	45
Itongo	42	47	39	40	44	50	48	48	44	42	46
Average	**45**	**47**	**38**	**52**	**44**	**50**	**46**	**45**	**43**	**44**	**46**
GETAMBWEGA WARD											
Getabwega	64	40	38	46	36	41	43	43	45	53	49
Nyamaranya	42	33	43	42	46	42	46	41	50	53	46
Masangara	28	44	45	36	36	38	36	38	45	38	47
Average	**45**	**39**	**42**	**41**	**39**	**40**	**42**	**41**	**47**	**48**	**47**

APPENDIX VII
PUPIL - TEACHER RATIO AGAINST SCHOOLS PERFORMANCE OF SCHOOLS

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
NYABASI WEST WARD											
No. of Pupils	1,678	1,659	1,761	1,747	1,561	2,191	2,203	2,244	2,310	2,302	2,343
No. of Teachers	40	41	44	43	47	45	48	48	47	45	47
Pupil Teacher Ratio	42:1	40:1	40:1	41:1	33:1	49:1	46:1	47:1	49:1	51:1	50:1
KCPE Mean Score	**42**	**45**	**42**	**52**	**47**	**48**	**49**	**47**	**49**	**51**	**50**
NTIMARU WEST WARD											
No. of Pupils	2,196	2,311	2,441	2,473	2,636	2,912	3,132	3,185	3,717	3,368	3,454
No. of Teachers	45	46	44	46	48	46	46	43	48	54	51
Pupil Teacher Ratio	49:1	50:1	55:1	54:1	55:1	63:1	68:1	74:1	77:1	62:1	68:1
KCPE Mean Score	**50**	**46**	**44**	**50**	**53**	**53**	**50**	**53**	**52**	**53**	**54**
NYABASI EAST WARD											
No. of Pupils	1,000	1,059	1,132	1,246	1,292	1,475	1,659	1,693	1,809	1,816	2,012
No. of Teachers	30	31	29	29	33	31	31	30	29	34	36
Pupil Teacher Ratio	33:1	34:1	39:1	43:1	39:1	48:1	54:1	56:1	62:1	53:1	56:1
KCPE Mean Score	**34**	**32**	**33**	**38**	**33**	**38**	**41**	**42**	**44**	**45**	**44**
NTIMARU EAST											
No. of Pupils	788	833	850	892	883	924	953	953	1,006	1,040	1,039
No. of Teachers	16	18	18	17	16	17	18	15	16	16	16
Pupil Teacher Ratio	49:1	46:1	47:1	52:1	55:1	54:1	53:1	64:1	63:1	65:1	65:1
KCPE Mean Score	**45**	**47**	**38**	**52**	**44**	**50**	**46**	**45**	**43**	**44**	**46**
GETAMBWEGA WARD											
No. of Pupils	796	912	917	889	926	1,090	1,212	1,238	1,170	1,291	1,376
No. of Teachers	23	23	24	25	25	23	23	22	26	25	24
Pupil Teacher Ratio	35:1	40:1	38:1	36:1	37:1	47:1	53:1	56:1	45:1	52:1	57:1
KCPE Mean Score	**45**	**39**	**42**	**41**	**39**	**40**	**42**	**41**	**47**	**48**	**47**
Total No. of Pupils	**6,458**	**6,774**	**7,101**	**7,247**	**7,298**	**8,592**	**9,159**	**9,313**	**10,012**	**9,817**	**10,224**
Total No. of Teachers	**154**	**159**	**159**	**160**	**169**	**162**	**166**	**158**	**166**	**174**	**174**
Pupil Teacher Ratio	**42:1**	**43:1**	**45:1**	**45:1**	**43:1**	**53:1**	**55:1**	**59:1**	**60:1**	**56:1**	**59:1**