

**INFLUENCE OF FREE PRIMARY EDUCATION ON KENYA CERTIFICATE OF
PRIMARY EDUCATION PERFORMANCE IN KITISE DIVISION, KATHONZWENI
SUB-COUNTY, MAKUENI**

By

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**A Research Project Presented in Partial Fulfillment for the Requirement of the Degree of
Master of Education in Curriculum Studies
South Eastern Kenya University**

2016

DECLARATION

This research project is my original work and has not been presented for degree award in any other university

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DEDICATION

This project is dedicated to my husband and children who have offered great support and encouragement all through the study period.

ACKNOWLEDGEMENTS

I would like to acknowledge the support and advice of my supervisors; Dr. Redempta Maithya and Dr. Anthony Mungai who have taken me this far. I would as well like to acknowledge the support of my head teacher, add school. I would not also forget to acknowledge my family members for their humility during the time I was compelled to be away from home as I worked on this project. Lastly, let me appreciate my lecturers and classmates for their constant support and encouragement.

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ABBREVIATIONS AND ACRONYMS

CBN	Central Bank of Nigeria
EFA	Education For All
FPE	Free Primary Education
GER	Gross Enrolment Rate
GOK	Government of Kenya
KCPE	Kenya Certificate of Primary Education
KCSE	Kenya Certificate of Secondary Education
KNUT	Kenya National Union of Teachers
MDGs	Millennium Development Goals
MOEST	Ministry of Education Science and Technology
NACOSTI	National Commission for Science, Technology and Innovation
NARC	National Rainbow Coalition
OPEC	Organization of the Petroleum Exporting Countries
PTR	Pupil Teacher Ratio
SACMEQ	Southern and Eastern Africa Consortium for Monitoring Educational Quality
SAGE	Student Achievement Guarantee in Education
STAR	Student-Teacher Achievement Ratio
UN	United Nations
UNESCO	United Nations Educational Social Cultural Organization
UNICEF	United Nations Children's Fund
UPE	Universal Primary Education
USAID	United States Aid
WEI	World Economic Indicators

ABSTRACT

The purpose of this study was to investigate the influence of Free Primary Education (FPE) on Kenya Certificate of Primary Education (KCPE) performance in Kitise Division, Kathonzweni Sub-County, Makueni County. Four research objectives were formulated: to assess the influence of pupils' enrollment on KCPE performance; determine the influence of quality of teaching on pupils' KCPE performance; establish the influence of teaching learning resources on KCPE performance and lastly investigate the influence of pupil teacher ratio on KCPE performance in Kitise Division, Kathonzweni Sub-County. The study was carried out using descriptive survey design. The target population comprised of 24 head teachers and 172 teachers. The sample for the study was 24 head teachers and 119 teachers. This study used questionnaires to collect data while descriptive statistics were used to analyse data. Findings revealed that pupil's enrollment affected KCPE performance. Findings also revealed that quality of teaching affected pupils' KCPE performance. It was also revealed that inadequate teaching learning resources on KCPE performance in the division. Findings further revealed that pupil teacher ratio in the schools affected KCPE performance. Based on the findings of the study, the study concluded that pupil's enrollment had an influence on KCPE performance and that quality of teaching negatively affected pupils' KCPE performance. The study also concluded that teaching learning resources were inadequate and thus affected KCPE performance in the division. . The study recommended that the government should employ more teachers to counteract the high number of pupils in schools so that performance can be improved. Teachers should be encouraged to undergo professional growth which will help them to have skills so as to be able to cope with the challenges facing the schools as a result of FPE. The researcher suggested that a study be carried out on parental involvement and its influence on pupils' academic performance.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Education is often viewed as one of the primary drivers of economic development. In conjunction with donors and non-governmental organizations, developing countries have invested heavily on efforts aimed at achieving the Millennium Development Goals (MDGs) of universal primary education by 2015. Education concerns itself with the acquisition of knowledge, skills and attitudes which are relevant to the survival of human beings. Education can make a positive contribution to the economic and social development of communities. The United Nations Educational Social Cultural Organisation (UNESCO, 2005) contended that up to 20% of income growth could be traced to education. According to United States Aid (USAID 2001), education is the key to sustaining democracies, improving health, increasing per capita income, and conserving environmental resources. In this context, education can be seen as an investment in human skills which help to foster economic growth, enhance productivity, contribute to national and social development, and reduce social inequality.

School fees have often been found to be a major deterrent to educational access, and to have large negative effects on take-up of educational services in a variety of settings (Holla & Kremer, 2008). Consequently, governments have instituted

policies that reduce or eliminate education fees in order to boost school enrollments. While developing countries in Latin America have generally chosen targeted fee reduction schemes, many African countries, in contrast, have eliminated public education fees for all students. The introduction of Free Primary Education (FPE) in Kenya in 2003 meant the abolition of school fees and levies for tuition. As a result, the Government and development partners were responsible for the costs of basic teaching and learning materials and wages for staff and co-curricular activities. Parents and communities were not required to build new schools. The policy expected them to refurbish and use existing facilities which included community and religious buildings. The development partners who have continuously funded the Free Primary Education (FPE) program in Kenya include the World Bank, the British Government through its international development agency Department for International Development (DfID), Organization of the Petroleum Exporting Countries (OPEC), UNESCO and the Swedish Government (GOK, 2005).

On the one hand FPE achieved its objective of increased participation in primary school learning. However, it created a myriad of problems also witnessed in other developing countries which were implementing it over the same period (Sifuna, 2007). These included insufficient teaching and learning facilities, overcrowding in class rooms, high pupil to teacher and pupil to text book ratios. Consequently in Kenya, these further led to reduced enrollment, poor quality of education and high

dropout rates of pupils from public primary schools, defeating the purpose of FPE (Sifuna & Sawamura, 2008)

In India FPE led to the congestion of pupils in classrooms, making teaching and learning, uncomfortable. Physical facilities were over stretched while teaching aids were inadequate (Riddell, 2004). In contrast, a study conducted in Nigeria indicated that enrolment in schools represented the largest component of investment in human capital (Schultz, 2002). According to Central Bank of Nigeria (CBN, 2000), school's enrolment increased from 5.0% to 24.9% in Nigeria. Girls' percentage increased from 48.5% to 49.0% with teacher to pupil ratio of 1:30. This led to an increase in enrolment from 74.3% in 2000 to 135% in 2001. As a result of this, classrooms were congested, the teacher –pupil ratio and pupil –textbook ratios rose to 1:55 and 1:4 respectively (Obasi, 2000)

Free Primary Education (FPE) is not a new phenomenon in Kenya. Vos, Bedi, Kimalu, Manda, Nafula and Kimenyi (2004) observe that since independence in 1963 the Kenya government has committed itself to providing education to all primary school age going children. UNESCO (2002) though notes that the original FPE can be traced back to the 1948 Declaration of Human Rights where article 26 stipulates that 'elementary' education shall be free and compulsory. The National Rainbow Coalition (NARC) government abolished the user charges in primary education and was committed to supporting FPE by providing instructional materials, teachers, and quality assurance services (Irin, 2006). This

move resulted to an increase of about 1.3 million children in public primary schools in 2003 that translates to a Gross Enrolment Rate (GER) of 104 percent (RoK, 2005b). There was little time for consultations with the stakeholders. The thrust of the FPE was ‘equity and socio economic agenda’ essentially aimed at narrowing the gaps of inequality in the country (RoK, 2009).

Kenya is one of the 189 United Nations (UN) member states which have committed themselves to achieving the Millennium Development Goals (MDGs) whose second goal is to achieve Universal Primary Education (UPE). The target of this goal was to ensure that by 2015, children everywhere, boys and girls alike were able to complete a full course of primary school (RoK, 2005). This reaffirms the commitment to provide Education For All (EFA) made by the same countries during the World Education Forum at Jomtein, Thailand, in 1990; and the Dakar Education Forum in 2000 (Kitamura, 2005). In the first two decades of independence the primary school level of education was characterized by non-enrolment, high dropout rates, low completion and transition rates, which could largely be attributed to the high cost of education that was worsened by the cost sharing policy that came into effect in 1980s (UNESCO, 2005).

In Kenya, since 1990’s the country has been facing a daunting challenge of increasing pupil-teacher ratio (PTR) due to escalating teacher shortages. The situation grew worse with the introduction of FPE in 2003. The implementation of FPE programme witnessed a 10% increase in enrolment in primary schools

nationally (MOEST, 2006). A record 1.3 million children registered in various schools across the country, raising the enrolment from 5.9 million in 2002 to 7.2 million in 2003 (MOEST, 2009). This sharp increase in enrolment rejuvenated into challenges of FPE in the country (Wamukuru, Kamau & Ocholla, 2006). For instance, the number of pupils exceeded the available human and physical facilities in the country while the (PTR) steadily increased from the recommended 40:1 to between 60:1 and 90:1 (MOEST, 2009).

High enrolments were experienced in all primary schools in Kenya as the government introduced cost-free schooling. This noble idea came with many challenges such as lack of clear policy on the school going age, overcrowded classrooms, insufficient infrastructural facilities and shortage of teachers. The Kenya government was very positive in meeting the challenges and undertook major reforms in the education sector and also partnered with other stakeholders to ensure success in providing free primary education to all children (Wamukuru, et al, 2006). The increase in enrolment occurred in the background of unexpanding teaching force (GOK, 2005). This saw several facilities being overstretched, including the human resource which was then thin on the ground following freezing of teacher recruitment in 1997. Since 1997, the Teachers' Service Commission (TSC) has been recruiting teachers to replace those exiting through natural attrition.

The PTR in public primary schools was 34:1 in 2002 and increased to 44:1 in 2007 and 45:1 in 2008 (MOEST, 2009). This is a clear indication that either the number of teachers is declining or the number of pupils is growing at a much faster rate than that of the teachers which may have serious negative implications on performance. The ratio may grow even worse with introduction of the new constitution which provides that 'Education is a basic right'. The recommended PTR for public primary schools in Kenya is 40:1 (TSC, 2006) which is also ideal ratio set by UNESCO and other international standards. This is not the case since the situation is grimmer in arid and semi-arid areas as well as in the slums of urban areas where the ratio is over 100 pupils per teacher (United Nations Children's Fund (UNICEF, 2005). The quality of education in Kenyan primary schools was once again brought into focus by the September 2010 teachers strike countrywide. The Kenya National Union of Teachers (KNUT) national secretary was quoted saying that schools have continued to post poor results in KCPE with high PTR taking the blame (Daily Nation, 2011).

In Kenya, there has been an increase of over 130,000 KCPE candidates representing 24.35 percent since the inception of FPE; which strongly indicates that many school drop-outs have re-entered school at various levels of education (MOEST, 2006). In the face of increased enrolment, the quality of primary education is at jeopardy especially in schools with shortage of teachers and limited textbooks (MOEST, 2003a). Although the government's policy on FPE is laudable, its implementation is besieged by a multitude of challenges that include

unavailability of physical facilities, school furniture, equipment and teachers (Vos et al, 2004).

Education system in Kenya has been stressing on performance as an integral part of quality education emphasized in the Sessional Paper No.1 of 2005 (Republic of Kenya, 2005). The provision of quality education and subsequent high performance in school is inevitable for the realization of the millennium development goals (MDGs) and the vision 2030. Currently in Kenya, problems facing FPE are further compounded by low budgetary allocation by the government. Since FPE started, enrolment has been rising but the resources have not increased (Ministry of Education, 2007). The Government of Kenya introduced Free Primary Education in 2003. Enrolment shot up from 5.9 million pupils to 7.6 million pupils representing 29% enrolment increase between 2002 and 2003 (UNESCO, 2005).

According to Morumbwa (2006), enrolment rose from 6,314,726 to 7,614,326 by the year 2003. The foregoing observation noted that the national mean standard score in the Kenya Certificate of Primary Education (KCPE) examination performance averaged at 245.5 marks out of 500 marks between 2005 and 2007 (Ministry of Education, 2007). Out of 77,614 pupils who sat for KCPE examinations in 2011, only 48.28% attained 250 marks and above and only 5,806 representing 0.75% scored over 400 marks (Obasi, 2000). Pupils' KCPE examinations performance in the study area (Kitise Division) averaged 230 marks

between 2003 and 2012 (Kathonzweni Sub County Education Office, 2012). In view of this, enrolment trends, pupils to teacher ratio, pupils to textbook ratio and physical facilities undermine KCPE examinations performance in the region

In Kenya's education system, passing examinations is the only benchmark for learning and performance. In primary schools examinations which are not national, for instance end term examinations, are not used in the final assessment of the pupil. Thus Kenya relies on examinations as a valid measure of achievement (Maiyo & Ashioya, 2009). For instance Secondary school placement and to some extent admissions depend on performance of Kenya Certificate of Primary Education (KCPE) in standard eight (Barasa & Ngugi, 2011). Although the introduction of (FPE) has occasioned the provision of funds to the public primary schools, they continue to perform poorer in KCPE than pupils from private primary schools who pay high school fees. Thus most pupils admitted to National schools are from private schools (Barasa & Ngugi, 2011).

Nationally the mean standard score in the KCPE examinations ranged from 245.5 marks out of 500 marks between 2005 and 2007 (Ministry of Education, 2007). Out of 77,614 who sat for KCPE Examination in 2011, only 48.28% attained 250 marks and 5,806 scored over 400 marks. However the performance in KCPE examinations in Kathonzweni Sub County where Kitise Division is situated has been poor all along. For instance in 2009 out of 1374 candidates who sat for examination in Kathonzweni Sub County, none gained admission to secondary

schools. KCPE results of Kitise Division have been poorer than the overall results of the Kathonzweni Sub County. Statistics in performance in KCPE examinations in Kathonzweni Sub County indicated that the sub county recorded a mean score of 232 marks between 2003 and 2012 while in Kitise Division it has been recording an average score of 230 marks in KCPE which is below the sub county mean over the same period (Kathonzweni District Education Office, 2014).

1.2 Statement of the problem

The Government of Kenya introduced (FPE) in 2003. Enrolment shot up from 5.9 million pupils to 7.6 million pupils representing 29% enrolment increase between 2002 and 2003 (UNESCO, 2005). By 2011, enrolment had shot up to 9.6 million pupils representing a 63% increase in nine years (Republic of Kenya, 2011). The phenomena has led to issues surrounding KCPE examinations performance including enrolment trends, high teacher to pupil ratio, pupil to text book ratio and physical facilities. For instance, nationally, between 2010 and 2013 the average national mean standard score in the KCPE examinations performance was 245.5 marks out of 500 marks (Republic of Kenya, 2014). Out of 77,614 who sat for KCPE Examination in 2013 only 48.28% attained 250 marks while 5,806 scored over 400 marks.

The statistics in performance in KCPE examinations in Kathonzweni sub-county indicate that the sub county recorded a mean score of 221 marks between 2010

and 2014 while in Kitise Division it has been recording an average score of 201 marks in KCPE which is below the sub county mean over the same period (Kathonzweni Sub County Education Office, 2014). This study therefore sought to investigate the influence of Free Primary Education on Kenya Certificate of Primary Education (KCPE) performance in Kitise Division, Kathonzweni Sub-County, Makueni County.. Specifically the study sought seek to assess the influence of pupils' enrollment, quality of teaching, teaching learning resources, and pupil teacher ratio on KCPE performance in Kitise Division, Kathonzweni Sub-County.

1.3 Purpose of the study

The purpose of this study was to investigate the influence of Free Primary Education on KCPE performance in Kitise Division, Kathonzweni Sub-County, Makueni County.

1.4 Objectives of the study

The study was guided by the following objectives

- i. To assess the influence of pupils enrollment on KCPE performance in Kitise Division, Kathonzweni Sub-County
- ii. To determine the influence of quality of teaching on KCPE performance in Kitise Division, Kathonzweni Sub-County

- iii. To establish the influence of teaching learning resources on KCPE performance in Kitise Division, Kathonzwani Sub-County
- iv. To investigate the influence of pupil teacher ratio on KCPE performance in Kitise Division, Kathonzwani Sub-County

1.5 Research questions

The study was based on the following research questions

- i. To what extent does pupils' enrolment influence KCPE performance in Kitise Division, Kathonzwani Sub-County?
- ii. What is the influence of quality of teaching on KCPE performance in Kitise Division, Kathonzwani Sub-County?
- iii. To what extent does teaching learning resources influence KCPE performance in Kitise Division, Kathonzwani Sub-County?
- iv. How does pupil teacher ratio influence KCPE performance in Kitise Division, Kathonzwani Sub-County?

1.6 Significance of the study

The study may be significant in a number of ways. First, the study may provide insights to the government and headteachers of primary schools on the factors that affect pupil performance in public schools during the implementation of FPE. Secondly, the findings of study are expected to be of great significance to the teachers who may need to understand the current strategies that need to be put in place for effective implementation of FPE. The findings may also be important to

training stakeholders on seeking for ways of empowering teachers so that they are able to handle issues of FPE that affect performance. The study is expected to contribute to the advancement of existing knowledge about performance enhancement in Kenyan schools.

1.7 Limitations of the study

According to Best and Kahn (1998), limitations are conditions beyond the control of the researcher that may place restrictions on the conclusions of the study and their application to other situations. According to Best and Kahn (2008), limitations are conditions beyond the control of the researcher that may place restrictions on the conclusions of the study and their application to other situations. The study was limited by the fact that it was not possible to control some intervening variables. For example, there were variations in the capacity of the principals due to experience and training. However, the researcher used questionnaires which are anonymous where the respondents would feel free to fill them. Some respondents were hesitant to fill in the questionnaires due to fear of victimization. The researcher however sensitized the respondents on the importance of filling the questionnaires. Data was collected only from head teachers and teachers involved in school since they are best placed in explaining the influence of Free Primary Education on KCPE performance in Kitise Division, Kathonzi Sub-County, Makueni County.

1.8 Delimitations of the study

According to Mugenda and Mugenda (2003), delimitations are boundaries of the study. This study focused on public primary schools in Kitise Division, Kathonzwi Sub-County, Makueni County. The respondents included head teachers and teachers. The study did not cover private schools because they are administered differently depending on proprietors' inclination hence applying different supervision practices and may not be uniform across the schools. Data was collected from head teachers and teachers of the sampled primary schools in Kitise Division, Kathonzwi Sub-County only. Although there were many other factors that affect KCPE performance in schools the study only concentrated on pupils' enrollment, quality of teaching, teaching learning resources and pupil-teacher ratio.

1.9 Assumptions of the study

The following were the assumptions of the study:

- i. All respondents had relevant information on the factors influencing the implementation of KCPE performance
- ii. That all the respondents gave genuine, truthful and honest responses to questionnaires.
- iii. All Primary schools in Kitise Division, Kathonzwi Sub-County receive Free Primary Education funding.

- iv. That the challenges faced by school head teachers in all the primary schools are similar.

1.10 Definition of significant terms

Enrolment refers to the number of pupils enrolled in a class in primary schools.

Free Primary Education refers to education provided to all children in primary schools free of charge because the government shoulders the financing of education.

Performance refers to the mean scores in KCPE

Pupil teacher ratio refers to the number of pupils enrolled in a primary school divided by the number of the primary school teachers in the school

Quality of teaching refers to how teachers prepare for teaching and how they execute teaching in the classroom.

Teaching and learning resources refers to resources which facilitate effective teaching and include teachers and instructional materials such as classrooms, sanitation and recreational facilities.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the literature review of the study. The chapter focusses on pupils enrollment and pupils' academic performance, quality of teaching and pupils' performance, learning resources and pupils' performance and pupil teacher ratio and pupils academic achievement. The chapter also presents the theoretical and conceptual framework for the study.

2.2 Pupils enrollment and pupils' academic performance

The declaration of Free Primary Education (FPE) in Kenya led to a rise in pupils' enrolment which has an implication on teaching and learning. Management of schools is the key to realizing the national educational goals. The immediate effect of the FPE was increase in enrolment in primary schools. The Gross Enrolment Rate (GER) of the school age population increased from 92 per cent in 2002 to 104 per cent in 2003 (Republic of Kenya, 2007). The enrolment of girls rose by 17 per cent from 3 million in 2002 to 3.5 million in 2003, while that of boys rose by 18 percent from 3.1 to 3.7 million in the same period. By 2006, the total enrolment in primary schools was 7.63 million up from 7.59 million in 2005. It is also important to note that some of the students enrolling were adults.

The dramatic rise in enrolment rates in schools presented a number of challenges. For example, there was overcrowding in classrooms as most schools did not have adequate classrooms to accommodate the large number of pupils that enrolled under the FPE (UNESCO, 2005). The pupil teacher ratio increased from 35:1 in 2000 to 43:1 in 2004. In many schools, the classroom sizes, especially in the lower classes, rose from an average of 40 to 120 pupils, resulting in overburdened teachers while pupils were forced to study under trees or in the open. There were also shortages of desks and other equipment and supplies (Republic of Kenya, 2006).

Despite the fact that free primary education was introduced in 2003, parents continued to contribute funds towards the study of their children in public primary schools in form of activity and examination fee respectively (Sifuna, 2000). A study by Chepchieng and Kiboss (2010) in a selected number of developing countries for instance Nigeria and India; showed that there was a wide range in pupil teacher ratio of between 1:30 to 1:80 in public primary schools. This is in sharp contrast to a pupil teacher ratio of 1:25 commonly observed in developed countries. In under developed and developing countries, high enrolment rates have made it difficult to achieve a similar ratio as that observed in developed countries. The high enrolment rates have led to poor examination performance which could be due to the fact that the high number of pupils has strained educational resources which were meant for a lower enrolment rate. (Chepchieng & Kiboss, 2010).

A study by Chimombo (2005) in Malawi showed that one teacher was assigned 240 pupils while another one was assigned 150 pupils with teaching undertaken under a tree. A similar study by Alubisia (2005) in Nigeria indicated that high enrolment in public primary schools brought about challenges in management of classes. A study in Nigeria on FPE showed similar effects of free primary education on enrolment and teacher pupil ratio. According to the World Bank (2006), in Nigeria, school's enrolment increased from 5.0% to 24.9% after the introduction of FPE. However, in some schools the ratio was high than the national average. Further this ratio and enrolment rate varied from region to region. Information on this variation in enrolment and teacher to pupil ratio on a continual basis is scanty.

In Kenya enrolment shot up from 5.9 million pupils to 7.6 million pupils representing 29% enrolment increase between 2002 and 2003 (UNESCO, 2005). By 2011, school enrolment had shot up to 9.6 million pupils representing a 63% increase in nine years (Republic of Kenya, 2011). According to MOEST, (2003); enrolment rose from 6,314,726 to 7,614,326 by the year 2003 There is therefore need to carry out region specific studies to monitor changes in teacher to pupil ratio and enrolment trends so as to obtain information that can be used in providing appropriate teacher to pupil ratios in public primary schools.

Werunga, Chepkwony, Kihumba and Sindabi (2012) carried out a study on the influence of FPE on Kenya Certificate of Primary Education performance in

Kenya. The study aimed at determining the influence of high enrolment on the ability of teachers to offer quality instruction; learning resources; management of pupils' discipline and suggestion on how to improve FPE in light of KCPE performance. The study was carried out in Kaptama Division, Mt. Elgon District, Kenya. The researcher used descriptive survey design. A sample of 310 respondents consisting of 253 standard eight pupils, 40 teachers, 13 head teachers and 4 education officers was used. The main tools of data collection were a questionnaire and interview schedule. Document analysis was also used in the study. Data analysis involved the use of frequencies, percentages, tables, charts and graphs.

The findings of the study established that implementation of FPE led to high enrolment which witnessed high pupil-teacher ratio and ill-discipline among pupils. It has also led to inadequate learning facilities such as classrooms, desks and chairs; fewer tests for pupils which lack in content and depth; and increased work load among teachers. This has in turn compromised KCPE performance.

Ocharo and Mokeira, (2015) carried out a study to: determine the effects of enrolment of pupils on KCPE on performance, determine the effects of pupil to teacher ratio on KCPE performance, find out the effects of pupil to textbook ratio on KCPE performance, and to find out the effects of physical facilities on KCPE performance in public primary schools in Kenya. The study used stratified random sampling and descriptive survey design. The instruments used were

questionnaires, interview schedules, focused group discussions and observations checklist. The total target population was 18 primary schools, 8326 pupils, 204 teachers 18 Head teachers, 180 school committee members and 2 education officers. The total population sampled was 372. The sample size constituted of 250 pupils, 80 teachers, 30 committee members, 10 Head teachers and 2 education officers in the Division.

The study found out that enrolment was high, schools had uneven distribution of teachers, pupil to textbook ratio was inadequate and that physical facilities were not enough. Chi square analysis showed no significant improvement in KCPE performance in the schools studied after the introduction of FPE. The study recommended that disbursement of funds be sent in time to cater for high enrolment, teacher to pupil ratio to be improved, pupil to textbook ratio to be at 1:1, physical facilities to be improved to ensure quality education and good KCPE results. The results obtained in this study would be useful in informing policy on the improvement of the KCPE performance in Kitise Division, Makueni County

2.3 Quality of teaching and pupils' performance

Quality of teaching is a process that facilitates changes in learners (Nasibi, 2001). A teacher therefore is considered not to have taught until a pupil has learned. A Global Monitoring Report on Education in 2006 projected that the number of Primary school children will increase by 24 million pupils (24 per cent) in Sub-

Saharan Africa, and an additional 5 million pupils (13 per cent) in Arab states between 2000 and 2015 (UNESCO, 2006). Abagi and Odipo (1997) associate quality of education with students' levels of academic performance in national examinations. According to them, if the student's achievement is low then the school is purported to be of low quality. Booker (2008) is of the opinion that in higher achieving schools, teachers tended to use more instructional activities in which groups of students competed as teams rather than individuals.

Adams (1971) also points out that low quality teaching can result in frustration and boredom of the learner who may eventually drop out of school. In a comparative study of low and high achievement among pupils in rural and urban schools in Malawi, Salamba and Zaman (2007) found out that teachers qualification affect pupils' performance. UNESCO (2005) reports that 30 million teachers are needed to achieve EFA by 2015, and as a result, some countries are recruiting low paid and poorly trained 'voluntary' teachers. The Kenya government should therefore move faster in addressing the inadequacy of the teaching force since according to Wasanga, Ambia and Mwai (2011), at the present; Kenya has a deficit of 80,000 teachers in primary schools. Thus the Kenyan government has resolved to hire 20,000 annually on contract to address the 80,000 deficit

In a study on school sizes in Nairobi area of Korogocho, Viwandani, Jericho and Harambee on quality of primary education in urban schools. Ngware, Oketch and Ezeh (2008) noted that the teaching load in schools varied by school ownership

and location. They revealed that teachers in public schools had a huge workload compared to their counterparts in private schools. This was in line with findings by Arnold (2000) who revealed that large schools experience wider gaps in achievement. He also noted that because high workload leads to less communication, interaction, and coordination throughout the school; this contributes to lower student achievement. While comparing large schools and small schools, Arnold, Gaddy & Dean (2004) argued that in small schools, the curriculum is limited and directed to average pupil rather than the full range of pupils with varied learning needs. This study therefore set out to investigate the influence of quality of teaching on pupils' performance in Kitise Division, Makueni County.

2.4 Learning resources and pupils' performance

Instructional resources refer to those materials that support or aid the learner in understanding of the concepts or ideas presented to the learner in a learning environment or situation. These are the materials that teachers use to assist learning and also increase interest in learning. Teachers use resources to enhance learner's participation in class activities for effective learning (Klier, 2005). For the purpose of this study the term instructional materials, teaching resources and audio visual aids have the same meaning. Since learners' interest and abilities are varied, the teacher needs to select and use a wide variety of resources in teaching in order to take care of individual differences in class. Such resources include

learners printed materials such as magazines, books and journals which are crucial in their learning process (Sushila, 2012).

According to Agosiobo (2007), the use of teaching resources is important because they motivate learners to learn as they offer stimulus variation and assist in sustaining learners' attention through out the lesson. Learning resources clarify information because sometimes a concept may be complex and words alone cannot offer a clear explanation. In addition, instructional materials stimulate lively class discussion. They also challenge independent thinking especially when used individually in an assignment or as a class activity (Miller & Seller, 2007). Miller and Seller (2007) also indicate that learning resources also increases learning. In addition, learning resources generate more interest and create a situation where the learner would fully engage in classroom and outdoor activities. The adequate use of learning resources also gives the learner a practical experience which can help in making the selection of learning concepts more easily. Utilization of learning resources and performance are closely related because learners are able to master the content faster.

Lowe (2009) recommends that learners should be allowed to learn in a way which suits the preferred style of learning. Through the use of variety of learning resources, learners are given an opportunity to learn their own learning style. In the year 2002, the Ministry of Education Science and Technology (MOEST) in conjunction with UNICEF in Kenya launched the child centered interactive

approach to teaching and learning. According to the Ministry of Education (MOE, 2001) the performance of learners can be affected by availability, distribution and utilization of learning resources. Other factors, which have effects on performance, include the frequency of use of the resources as well as the time allowed for their use.

According to Agosiobo (2007), the use of teaching resources is important because they motivate learners to learn as they offer stimulus variation and assist in sustaining learners' attention throughout the lesson. Instructional materials stimulate lively class discussion and also challenge independent thinking especially when used individually. In a class activity, learning resources generate more interest and create a situation where the learner would fully engage in classroom and outdoor activities. The adequate use of learning resources also gives the learner a practical experience which can help in the selection of learning concepts more easily. Miller and Seller (2006) assert that instructional materials are critical ingredients in learning and that the intended programme cannot be easily implemented without them.

Instructional materials provide information and opportunities for pupils to use what they have learnt. Without resource materials and facilities, the teacher may not be able to set the objectives that students need to attain. It would mean therefore that pupils cannot be taught without using the most suitable methods for a given topic. In case of lack of resources and facilities the teacher should be

innovative enough to improvise and provide alternatives using locally available materials the study by Lowe (2009) on effective teaching and learning resources in South Africa, found that lack of relevant teaching materials caused dismal students' performance in National Examinations. The study found out that students' poor achievement is mainly caused by lack of relevant textbooks which are tailored to the requirements of the curriculum and lack of other handbooks. Therefore when learners come to school with their own learning materials; it is the responsibility of the teachers to use what the learners come with to improve learning.

Mwamwenda and Mwamwenda (1987), reporting on the study carried out on the effects of a school's physical facilities on the performance of standard seven pupils in examinations in Malawi, established that availability of such facilities had a direct link with the performance of pupils. Such findings are in consensus with Heinemann's (1984) study which evaluated the impact of availability of textbooks in the teaching of Pilipino, mathematics and science and found out that there exists a positive relationship between the availability of textbooks and academic performance.

Teachers use resources to enhance learner's participation in class activities for effective learning. Since learners' interest and abilities are varied, the teacher needs to select and use a wide variety of resources in teaching in order to take care of individual differences in class such resources include learners printed

materials such as magazines, books and journals which are crucial in their learning process. Mumasi (2013) carried out a study on School based factors influencing students' performance at Kenya Certificate of Secondary Education in Narok – North District, Kenya. The study adopted a descriptive survey design. Complaints about the poor performance in Kenya Certificate of Secondary Education examinations from parents, teachers and stakeholders made this area of study one of interest to the researcher. The target population comprised of 19 public secondary schools with a total population of 901 form four students, 240 teachers and 19 principals.

The study, further used stratified sampling to select 201 students", simple random sampling to select 48 teachers, 6 principals were selected using purposive sampling technique. Findings of the study revealed that factors which influence students 'performance were inadequate instructional materials. Some of the schools in the district did not have adequate teachers. In addition, the study revealed that most of the schools had inadequate physical facilities like the libraries, laboratories, classrooms and dormitories. Based on the findings, the study made recommendations to arrest the school based factors which affect performance.

Wachira, Mwenda, Muthaa, and Mbugua (2011) carried out another study on impact of FPE on management of primary schools in Embu West District in Kenya. The study aimed at investigating the impact of high enrolment on the

management of pupils, teachers, physical resources and curriculum implementation. The sample comprised of sixteen head teachers (16), forty six (46) teachers and two (2) education officers. Data was collected using questionnaires and an interview schedule. Results obtained indicated that FPE has negatively impacted on the management of physical resources. The study recommended that the government should be concerned with provision of learning resources for successful implementation of FPE if national education goals and objectives are to be achieved. This study therefore set out to assess the influence of pupils enrolment on KCPE Performance, determine the influence of quality teaching on pupils KCPE performance, establish the influence of teaching learning resources on KCPE performance and investigate the influence of pupil-teacher ratio on KCPE performance in Kitise Division, Kathonzwi Sub-County.

2.5 Pupil teacher ratio and pupils academic achievement

While increased enrolments may suggest school systems have increased their capacity to accommodate more children, this did not necessarily translate into improved educational quality. The FPE was a noble idea, but the intended gains are being eroded by lack of effective teaching-learning process (Daily Nation, 2011: 19). Though developing countries have been able to improve the percentage of literacy to impress the international fraternity, the quality of education provided has been a major concern due to congested classrooms resulting from high enrolments. One of the major indicators of quality is the pupil-teacher ratio

(PTR). The primary school PTR did not keep pace with rapid increase in enrolments. The greatest challenge facing developing countries in their efforts to attain the international goals of EFA and the MDGs have therefore been provision of quality education.

The PTR in most developing countries is in a worrying state. UNESCO (2006) estimated that over 84 per cent of classrooms in developing countries had over 40 pupils per teacher. Majority of the countries that have PTR exceeding 40:1 are in Sub-Saharan Africa and Asia. Sub-Saharan Africa has the largest PTR with Congo having a PTR of 54:1, Mali 55:1, Mozambique 67:1, Rwanda 65:1, Ethiopia and Malawi hovering around 70:1, South Asian countries such as Afghanistan with 83:1, Cambodia 50:1, and Bangladesh 50:1. (UNESCO, Institute of statistics, 2008). The high PTR in many developing countries is as a result of large enrolments following the quest for universal primary education and the increasing teacher shortages. With such enrolments and reduced number of teachers, the available teachers face serious obstacles in an attempt to deal with over-crowded classes. These high enrolments have caused low efficiency in the schools which is one of the main reasons for the poor quality of education offered in many primary schools in the developing countries (UNESCO, 2006).

The classroom conditions are particularly acute in a number of developing countries where large class sizes often swell up and go beyond 100 pupils (Ron, 2003). The reality, however, is that high PTR due to overcrowded classrooms

affect the quality of education in resource poor schools. Brewé, Gamoran, Ehrenberg & Willms (2000) noted that PTR is a global measure of human resources brought to bear, both directly and indirectly, on children's learning. For the last one decade the debate on PTR and teacher shortage in public schools in developing countries has caused much concern in both political and educational arena. Over the same period concerns have been particularly raised regarding the alarming shortage of teachers, increased enrolments and raising PTR. This has been pointed to have detrimental impact on the quality of education pupils receive and has from time to time been addressed by political and educational leaders. The figures on PTR have been growing and the reasons for teachers leaving the profession are mounting thus compromising quality of education and performance in national examinations.

According to Benbow, Oliver & Said (2007) an ideal pupil-teacher ratio should be 40:1. In a study done in Ethiopia, Verwimp (1999) argued that there is a negative correlation between the quality of teaching and the pupil-teacher ratio. However, the Ethiopian study was quick to acknowledge that class-size is not a relevant variable in the quality debate. A study covering 11 of the 19 countries in the World Economic Indicators (WEI) programmes reported a lower pupil-teacher ratio for the participating countries. Most WEI- countries (India, Philippines, Malaysia, Sri Lanka Tunisia, Peru, Argentina, Brazil, Chile, Paraguay & Uruguay) had in average a Pupil-teacher ratio in the range of 20 to 30. India had

the highest number (59) especially in the villages while Malaysia had the lowest number, with a Pupil-teacher ratio of 18. In the WEI-Countries Zhang Postlethwaite and Grisay (2008) revealed that there was slight difference in students' achievements across the countries despite variations in Pupil-teacher ratio. The Pupil-teacher ratio in public primary schools in Kenya was 43 in 2005 and 50 in 2007 (GOK, 2008). An indication that either the number of teachers is declining or the number of pupils is growing at a much faster rate than that of the teachers.

A teacher in the classroom is a main instrument for bringing about qualitative improvement in teaching and learning activities. Such quality is maximized where there are enabling and supportive environments where the pupils participate actively in the process and where pupils, teachers and schools have opportunities for institutional growth. The pupil-teacher ratio in primary school in Tanzania was last reported at 50 and 76 in 2010, according to a World Bank report (2012). The official Basic Education Statistics in Tanzania (2010) indicates that, there has been a steady increase in pupil teacher ratios in recent years from 1:50 to 1:60 in 2011. Benjamin (2005) indicates pupil-teacher ratios in some regions in Tanzania are: 1:71 to 1:79 in both rural and urban areas. The government had set a target by the year 2002 – 2006, that the teacher –pupil ratio should be 1:40, but this has not yet been achieved due to the inconsistency with the current primary school staffing formulas of eight teachers for seven classes in rural schools and nine teachers for seven classes in urban schools.

A study in Kenya by Duflo, Dupas and Kremer (2008) revealed that at the sample mean, in lower grades, reducing class size from 80 to 40 without any change does not lead to a significant increase in test scores. A similar finding was reported by Banerjee et al (2007) in India where no impact of the reduction in class size was achieved through the hiring of remedial education teachers for students who remained with a regular teacher. Sweeney (2004) asserted that in Mississippi the problem of teaching mathematics needed adequate and qualified teachers and recommended to the Ministry of Education to equip schools with enough teachers. Teacher shortage in South Africa was found to be the stumbling block to performance in mathematics (Mji & Makgato, 2006). A study on the effect of class size on classroom interaction after the implementation of FPE in Kenya revealed that increased enrolments in schools created increased class sizes and high pupil-teacher ratio, factors that hindered Teacher-pupil interaction and negatively affected performance in national examinations (Majanga, Masanga & Syliva, 2010).

From the previous studies that were conducted in different parts of the world on the impact of class-size and pupil-teacher ratio on students' achievement, there seems to be lack of consensus on the existence of significant relationship between the two variables. Some studies such as the Tennessee Student-Teacher Achievement Ratio (STAR) experiment, the Student Achievement Guarantee in Education (SAGE) program in Wisconsin and the study done in Nyamaiya Division in Kenya revealed a negative relationship between small Student-

Teacher Ratio (STR) and student academic achievement. The findings of these studies asserted that low student-teacher ratio creates an enabling environment for optimal student-teacher interaction. These studies have supported for small number of students per teacher in order to improve performance.

The Tennessee-STAR experiment for example showed that each year, the small-class students exceeded the large-class students on all cognitive and most non-cognitive measures. Accordingly gains were cumulative and stronger for students who had spent more years in small classes. The debates on class-size and learning achievement therefore have not been conclusive with different studies pointing different directions (Kitavi, 2011). Many studies so far have compared the performance of pupils in classes of different sizes in such cognitive subjects as reading and mathematics, but studies on the effects of pupil-teacher ratio on pupil's performance have not reached definitive conclusions. Based on this argument therefore there is need for a study in a different region to fill the gap and clarify the relationship between low student- teacher ratio and performance. The concern of this study was to assess the influence of pupils enrolment on KCPE performance, determine the influence of quality teaching on pupils KCPE performance, establish the influence of teaching learning resources on KCPE performance and investigate the influence of pupil-teacher ratio on KCPE performance in Kitise Division, Kathonzwi Sub-County.

2.6 Summary of Literature Review

Past researches have shown a relationship between academic performance and enrolment, quality of teaching, teaching and learning resources and pupil- teacher ratio. Examples of such researches include Ocharo and Mokera (2015), Ngware Okech and Ezeh (2008), Werunga, Chepkwony Kihumba and Sindabi (2012) and also Majanga, Masanga & Silvia (2010). In the above researches it has been pointed out that high enrolments have been implicated with low achievements of learners. With the onset of FPE, the quality of teaching was as well compromised as teachers were unable to cater for individuals needs of learners. In previous studies, inadequacy of teaching and learning resources was cited as the main cause of poor performance in Kenya Certificate of Primary Education (KCPE).

The increasing pupil teacher ratio due to FPE has hindered teacher pupil interaction, hence negatively affecting performance in national examinations.

The extent to which this applies to Kitise division was yet to be determined and thus the rationale for this study.

2.7 Theoretical framework

This study was guided by the Human Capital theory. Human capital can be defined as knowledge, skills, attitudes, and other acquired traits contributing to production. Skills represent individual capacities contributing to production as an

argument in the production function. According to Blundell, Dearden, Meghir, & Sianesi (1999), there are two main components of human capital with strong complementarity: early ability (whether acquired or innate) and skills acquired through formal education or training on the job. Human capital differs from other assets because it yields market returns only in proportion to the worker's supply of labor (Hall and Johnson, 1980)). Ishikawa and Ryan (2002) suggest that it is the stock of human capital that predominantly determines the earnings of individuals. An extensive review of the theory of human capital is given by Cahuc and Zylberberg (2004).

The theory was used in this study to discuss how FPE affects KCPE academic performance. The theory holds that education is a necessary investment for the social good or benefit of the entire society (Schultz 1961). According to Schultz (1961), by investing in them, people can enlarge the range of choice available to them. It is one way that free men can enhance their welfare. He highlighted that measured by what labor contributes to output; the productive capacity of human beings is now vastly larger than all other forms of wealth taken together (Schultz 1961). Hence, human capital theory is the prime motivator for FPE because education is seen as critical for alleviating poverty and promoting social welfare of a society.

According to this theory, education empowers citizens to participate in the democratic and legal processes and to pursue values such as equality, justice and

liberty. Even though human capital investment includes health and nutrition, education often comes out as the main human capital investment for empirical analysis because it contributes to improvements in health and nutrition. The second reason is that education can be quantitatively measured in monetary terms and in terms of years of tenure or schooling. Given that these are all-embracing benefits of education, the focus has shifted from cost-sharing to Free Primary Education, as it is a foundation for preparing citizens in poorer countries to participate in the global knowledge economy.

Formal education is crucial in improving the production capacity of a nation, implying that investment in human capital should be a priority of any country. In this context universalizing primary education should not merely be seen as a filter for secondary education and that the prospects of a minority that succeeds should not blind us to the fate of the majority who fail. Statistically the quality of education has a far greater positive effect on economic growth than the association between the quantity of education and growth (Tikly & Barret, 2011). This theory concedes well with the country's effort to provide FPE in endeavor to invest in its citizens. As a result if learners are adequately provided with teaching and learning resources and enough teachers as per the right ratio, success in academic performance is guaranteed. This study sought to find out if this has been the case in Kitise Division in relation to pupil enrolment, quality of teaching, availability of teaching and learning resources and pupil-teacher ratio.

2.8 Conceptual framework

The conceptual framework for the study is presented in figure 2.1

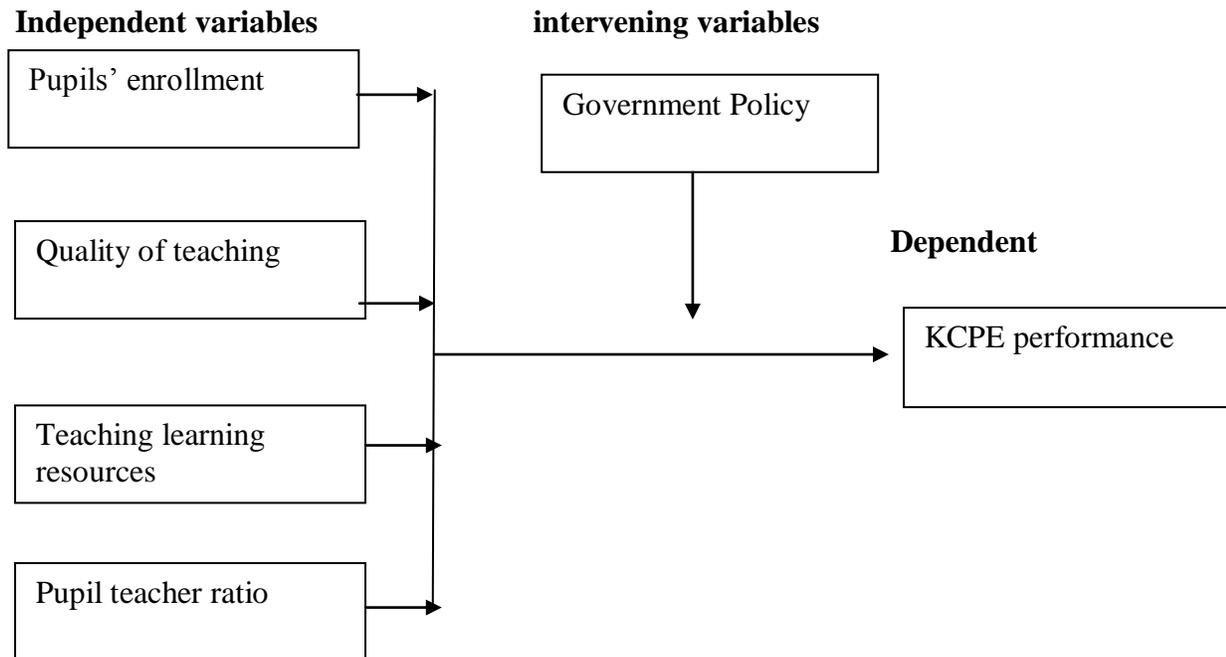


Figure 2.1 Interrelationship among variables in the influence of FPE on KCPE performance

Source: Researcher's design

The conceptual framework for the study as presented in figure 2.1 shows the interrelationship among variables in the influence of FPE on KCPE performance in Kitise Division, Kathonzwani Sub-County, Makueni County, Kenya. The framework shows that performance in KCPE is influenced by among other variables, pupils' enrollment, quality of teaching, teaching learning resources and pupil teacher ratio. These factors that influence KCPE are the independent variables while the dependent variable in the study is the final outcome, KCPE performance. The intervening variable is Government policy on FPE; a variable

that explains the relationship between the independent variables and the dependent variable. The relationship among the variables shows that when the pupils' enrolment does not supersede the capacity of the school, when there is high quality teaching, when the schools are provided with adequate teaching and learning resources and when the pupil teacher ratio is checked, there will be improved performance in KCPE.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The section focuses on the research design, target population, sample and sampling procedures, research instruments, validity of the instruments, reliability of the instruments, data collection procedures and data analysis.

3.2 Research design

According to Kombo and Tromp (2006) research design can be regarded as an arrangement of conditions for the collection and analysis of data in a manner that aims to combine relevance with research purpose. It is the conceptual structure within which research is conducted. The study was carried out using descriptive survey design. Kothari (2007) notes that descriptive survey research is intended to produce statistical information about aspects of education that interest policy makers and educators. The choice of the descriptive survey design was made based on the fact that in this study the researcher was interested in the state of affairs already existing in the field and no variable was manipulated. Descriptive survey design therefore was appropriate because it enabled the researcher to gather information to describe the influence of FPE on KCPE performance in Kitise Division, Kathonzwani Sub-County, Makueni County.

3.3 Target population

Mugenda and Mugenda (2003) define target population as an entire group of individuals, events or objects having common characteristics. It is the sum total of all that conforms to a given specifications. Johnson and Christensen (2012) define target populations as the larger population to study. The study was carried out in Kitise Division, Makueni County. Kitise Division being one of the four Divisions of Kathonzi Sub-County. The target population was 24 head teachers and 172 teachers in public primary schools in Kitise Division.

3.4 Sample and sampling procedures

According to Kombo and Tromp (2006), sampling is the process of collecting data from a number of individuals or objects from a population such that the selected group contains elements representative of the characteristics found in the entire group. Cohen and Morrison (2000) define a sample as a small proportion of the total population that is selected for observation and analysis. Since the number of head teachers was less than 30, all of them were selected. This is according to Wiersema (2009) who states that when the number is 30 or less, the whole population should be taken for the study.

In order to obtain a sample for the teachers, the table by Krejcie and Morgan was used. In the table, out of a sample of 172 teachers, 119 should be selected. The sample for the study was therefore 24 head teachers and 119 teachers. To pick up

specific teachers for the study, the 119 was divided by the number of schools (119/24) which means that in every school, 5 teachers selected. This was done by use of simple random sampling.

3.5 Research instruments

This study used questionnaires to collect data. Questionnaires enable the researcher to collect both qualitative and quantitative data for research (Wiersema, 2009). A questionnaire is a written set of questions that are cheap to administer to respondents scattered over a large area and convenient for collecting information from a large population within a short span of time. In addition, the respondents feel free to give frank answers to sensitive or embarrassing questions especially if they are not required to disclose their identity. The questionnaire had five sections. Section A presented the demographic data of the respondents; section B had items on the influence of pupils enrollment on KCPE performance; Section C had items that sought to determine the influence of quality of teaching on pupils' KCPE performance ; section D had questions seeking to establish the influence of teaching learning resources on KCPE performance K while section E had items on the influence of pupil teacher ratio on KCPE performance in Kitise Division, Kathonzweni Sub-County.

3.6 Validity of the instruments

Validity is that quality of a data gathering instrument or procedure that enables it to measure what it is supposed to measure. Validity refers to the utility of a tool, data or information. To validate the research instruments, the researcher used content validity to check whether the items in the questionnaire answered the research objectives. The researcher also sought assistance from the supervisors who helped to improve the validity of the instrument.

3.7 Reliability of the instruments

Mugenda and Mugenda (2003) define reliability as a measure of the degree to which a research instrument yields consistent results or data after repeated tests when administered a number of times. To enhance the reliability of the instrument, a pre-test was conducted in two schools in the neighboring division in the sub county. The schools were not included in the main study. The aim of pre-testing was to gauge the clarity and relevance of the instrument items so that those items found to be inadequate for measuring variables were either discarded or modified to improve the quality of the research instruments. The procedure for extracting an estimate of reliability was obtained from the administration of test-retest reliability method which involves administering the same instrument twice to the same group of subjects with a 2 weeks' time lapse between the first and second test. Cronbach's Alpha Co-efficient was used to compute reliability of the data using the following formula:

$$r = \frac{N\sum xy - (\sum x)(\sum y)}{\sqrt{[N\sum(x)^2 - (\sum x)^2][N\sum(y)^2 - (\sum y)^2]}}$$

The reliability was calculated and using Cronbach's Coefficient for each questionnaire. A correlation coefficient of above 0.7 deemed the instrument reliable. The correlation coefficient was 0.723 for headteachers and 0.712 for teachers hence the questionnaires were deemed reliable for data collection.

3.8 Data collection procedures

The researcher obtained an introductory letter from the Board of Post Graduate Studies (BPS) in South Eastern Kenya University, which was used to introduce her to and allow her get the research permit from the National Commission for Science, Technology and Innovation (NACOSTI). The researcher also sought permissions from the County Director of Education (CDE) Kathonzwani Sub County. The researcher booked appointments with the head teachers and teachers of the sampled schools to confirm on when she could visit the schools and collect data. The selected schools were visited and the questionnaires were administered to the respondents after the researcher created rapport with the respondents and assured them that strict confidentiality would be maintained in dealing with their identities. The completed questionnaires were collected immediately after completion by the researcher.

3.9 Data analysis techniques

This study generated quantitative data. Quantitative data was arranged and aligned to particular research questions. Data was analyzed using computer programme, Statistical Package for Social Sciences (SPSS). This processed the frequencies and percentages which were used to discuss the findings. Descriptive statistics methods such as frequencies and percentages were used to present data related to the influence of Free Primary Education on KCPE performance in Kitise Division, Kathonzwani Sub-County, Makueni County, Kenya.

3.10 Ethical considerations

Ethics in research is usually put in place to control the relationship between the researchers and participants and between the researchers and the fields they wish to study (Bulger, 2002). The researcher observed and adhered to research ethics. In adhering to the ethical issues, the researcher safeguarded against doing anything that would harm the participants in the study. The researcher also sought permission from the participants to have them participate in the study; and made sure that participants are informed, to the extent possible, about the nature of the study. Informed consent allows the respondents to choose to participate or not (Kombo & Tromp (2006). In this study the participants' informed consent was sought when sampling the participants. The participants were given the freedom to choose to participate or not to in the study. Confidentiality and anonymity was achieved by not asking participants to write their names on the questionnaires.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATION AND DISCUSSION OF FINDINGS

4.1 Introduction

This chapter presents the data analysis, interpretation and discussion of findings. The chapter covers response rate, demographic information of the headteachers, demographic information for the teachers, and influence of pupils' enrollment on KCPE performance; influence of quality of teaching on pupils' KCPE performance, influence of teaching learning resources on KCPE performance and lastly the influence of pupil teacher ratio on KCPE performance.

4.2 Response rate

Response rate is the proportion of the data collection tools that are returned after being administered to the respondents. In this study, out of the 24 questionnaires administered to the head teachers, only 20 (83.3%) were returned; while out of 172 questionnaires administered to the teachers; 165 (95.9%) were returned. The response rates were therefore 83.3 and 95.9 percent respectively and hence were deemed adequate for data analysis. This can be related to Mugenda and Mugenda (2003) who said that a 50% response rate is adequate, 60 percent good and above 70 percent rated very good..

4.3 Demographic information

The demographic data sought in the study included general profile of the study's respondents with regard to gender, age, professional qualification, duration of stay for head teachers and the teachers in the schools. This section presents the demographic information of the head teachers and also the teachers. It was necessary to get the demographic information of the respondents so that the study samples the experiences of respondents who understand the real situation in their schools regarding the influence of Free Primary Education on KCPE performance in Kitise Division, Kathonzweni Sub-County, Makueni County..

4.3.1 Demographic information of the headteachers

The headteachers were asked to indicate their gender. The data is presented in Table 4.1.

Table 4.1 Distribution of head teachers by gender

Gender	F	%
Male	15	75.0
Female	5	25.0
Total	20	100.0

The study sought to establish the gender of the head teachers in the study, Data from the head teacher responses as in Table 4.1 indicated that 15 (75%)

were male while 5 (25%) were female. The data shows that there was gender imbalance in terms of gender distribution. The headteachers were also asked to indicate their age in years. The data is presented in table 4.2.

Table 4.2 Distribution of head teachers by age

Age in years	F	%
41-45 years	15	75.0
51years and above	5	25.0
Total	20	100.0

As shown in Table 4.2, data on the age of the headteachers showed that 15 or 75 percent were aged between 41 and 45 years while 5 or 25 percent were aged between 51 years and above. The data shows that majority of the head teachers were well advanced in age. From this finding, it can be deduced that majority of the respondents were mature enough; an indication that they had worked for long enough. This made them suitable to understand the influence of Free Primary Education (FPE) on KCPE performance in Kitise Division, Kathonzwi Sub-County, Makueni County. This also implies that the teachers in the selected primary schools were mature enough to handle their teaching professionally.

The researcher was also interested in establishing the highest professional qualifications of the headteachers. The data is presented in table 4.3.

Table 4.3 Distribution of head teachers by highest professional qualifications

Professional qualifications	F	%
P.1	8	40.0
Diploma	7	35.0
Degree	5	25.0
Total	20	100.0

Table 4.3 shows that data on the professional qualification of the headteachers indicated that 8 (40%) were P1 holders, 7 (35%) were diploma holders and five (25%) were degree holders. The data shows that all the headteachers were professionally trained and thus able to understand the influence of Free Primary Education on KCPE performance in Kitise Division, Kathonzweni Sub-County, Makueni County.

The headteachers were further asked to indicate their professional experience. Their responses are presented in Table 4.4.

Table 4.4 Professional experience of the headteachers

Professional experience	F	%
5-10 years	1	5.0
11-15 years	13	65.0
16-20 years	5	25.0
21-25 years	1	5.0
Total	20	100.0

Data on the professional experience of the head teachers (Table 4.4) indicated that majority, 13 (65%) had been in the profession for between 11 and 15 years. Overall 95 percent of the headteachers had been in the teaching profession for over 11 years. This is a duration of time that could be deemed adequate for them to understand and explain the influence of Free Primary Education on KCPE performance in Kitise Division, Kathonzwani Sub-County, Makeni County.

4.3.2 Demographic information for the teachers

The demographic data of the teachers focussed on teachers with regards to gender, age, professional qualification, and duration for head teachers and the teachers in the schools. The teachers were asked to indicate their gender. The data is presented in Table 4.5.

Table 4.5 Distribution of teachers by gender

Gender	F	%
Male	109	66.1
Female	56	33.9
Total	165	100.0

As shown in Table 4.5, data on the gender of the teachers indicated that 109 (66.1%) were male while 56 (33.9%) were female. The data shows that there was gender disparity in terms of gender representation of the teaching personnel in the division. The teachers were further asked to indicate their age in years. The data is presented in Table 4.6

Table 4.6 Distribution of teachers by age

Age	F	%
Below 25 years	21	12.7
25-30 years	11	6.7
31-35 years	57	34.5
41-45 years	76	46.1
Total	165	100.0

Data in table 4.6 revealed that almost half the number of teachers 76 (46.1%) were aged between 41 and 45 years, 57 (34.5%) were aged between 31 and 35 years while 11 (6.7%) were aged between 25 and 30 years. The data shows

that almost all the teachers in the sample were relatively old. This may have given them a chance to be in schools for long and hence able to understand and explain the influence of Free Primary Education on KCPE performance in Kitise Division, Kathonzwi Sub-County, Makueni County.

The researcher further sought to find out the professional qualifications of the teachers. The data is presented in Table 4.7

Table 4.7 Distribution of teachers by professional qualifications

Professional qualifications	F	%
P.1	101	61.2
Diploma	24	14.5
Degree	33	20.0
Masters	7	4.2
Total	165	100.0

Based on data in Table 4.7; findings on the professional qualifications of the teachers showed that majority; 101 (61.2%) were P1 holders, 24 (14.5%) were diploma holders while 33 (20%) were degree holders. A few, 7 (4.2%) were holders of a Master’s degree. The data shows that all the teachers had the minimum professional qualifications and hence are able to understand and explain the influence of Free Primary Education on KCPE performance in Kitise Division.

The study also sought to establish the duration that teachers had been in the school. The data is presented in Table 4.8.

Table 4.8 Distribution of teachers by duration at school

Duration	F	%
Below 5 years	64	38.8
5-10 years	46	27.9
11-15 years	16	9.7
16-20 years	10	6.1
21-25 years	29	17.6
Total	165	100.0

Data on the duration that teachers had been in the school as in Table 4.8, indicate that most of them; 64(38.8%) had been in the current school for below 5 years, 46 (27.9%) had been in the school for between 5 and 10 years, 16 (9.7%) had been in the school for between 11 and 15 years while 39 (23.7%) had been in the school for over 16 years. The data shows that teachers were in the current schools for duration of time adequate for them to establish how FPE affected performance in the schools.

4.4 Influence of pupils enrollment on KCPE performance

The first objective sought to establish the influence of enrollment of pupils on KCPE performance. The head teachers as respondents were therefore asked to

indicate the extent to which they agreed on the statement on the influence of FPE on KCPE performance. Table 4.9 presents the data.

Table 4.9 Head teachers' responses on the influence of enrollment on KCPE performance

Statement	SA		A		D	
	F	%	F	%	F	%
High number of pupils after the introduction of FPE has led to poor performance	10	50.0	10	50.0	0	00
The number of pupils has been high in this school	9	45.0	11	55.0	0	00
The high enrolment has not been proportional to the number of teachers	20	100.0	0	00	0	00
Teachers are not able to cope with the high number of pupils during teaching and learning	8	40.0	8	40.0	4	20.0
Effective teaching has been hampered by the high number of pupils	6	30.0	5	25.0	9	45.0

Data from Table 4.9 revealed that all the 20 head teachers or 100 percent agreed that high number of pupils after the introduction of FPE has led to poor performance. It was also agreed by all the headteacher respondents that the number of pupils has been high in their schools. A further majority (20 or 100%) also agreed that the high enrolment has not been proportional to the number of teachers while 16 (80%) agreed that teachers were not able to cope with the high number of pupils during teaching and learning. Lastly in the items, 11 (55%) agreed that effective teaching has been hampered by the high number of pupils. These findings show that head teachers were all in agreement that high pupil enrolment affected KCPE performance.

These findings concur with Ocharo and Mokeira, (2015) who carried out a study whose objectives were to: determine the effects of enrolment of pupils on KCPE examinations performance, determine the effects of pupil to teacher ratio on KCPE examinations performance, find out the effects of pupil to textbook ratio on KCPE examinations performance and to determine whether there is any significant improvement in performance of KCPE in public primary schools of Kemera Division. The study found out that enrolment was high, schools had uneven distribution of teachers, pupil to textbook ratio was inadequate and physical facilities were not enough. Chi square analysis showed no significant improvement in KCPE performance in the schools of the Division after the introduction of FPE which is in agreement with the findings of this study.

The teacher respondents were therefore asked to indicate the extent to which they agreed on the statements on the influence of FPE on KCPE performance. Table 4.10 presents the data.

Table 4.10 teachers' responses on the influence of enrolment on KCPE performance

Statement	SA		A		D		SD	
	F	%	F	%	F	%	F	%
High number of pupils after the introduction of FPE has led to poor performance	59	35.8	71	43.0	35	21.2	0	00
The number of pupils has been high in this school	63	38.2	53	32.1	14	8.5	35	21.2
The high enrolment has not been proportional to the number of teachers	53	32.1	58	35.2	40	24.2	14	8.5
Teachers are not able to cope with the high number of pupils during teaching and learning	42	25.5	63	38.2	32	19.4	28	17.0
Effective teaching has been hampered by the high number of pupils	40	24.2	81	49.1	16	9.7	28	17.0

As shown in Table 4.10, data on the influence of enrolment on KCPE performance revealed that majority of the teachers agreed that high number of pupils after the introduction of FPE has led to poor performance. This was shown by 59(35.8%) teachers who strongly agreed and 71(43%) who agreed to the statement respectively. Further, 63 (38.2%) of the teachers strongly agreed that the number of pupils has been high in their schools while 53 (32.1%) agreed to the statement. Further investigation showed that 53 (32.1%) strongly agreed that the high enrolment has not been proportional to the number of teachers, while 58 (35.2%) agreed. Moreover, 63 (38.2%) agreed that teachers were not able to cope with the high number of pupils during teaching and learning where 42 (25.5%) strongly agreed. On the same realm,

almost half the number of teachers as represented by 81 (49.1%) agreed that effective teaching has been hampered by the high number of pupils, while 40 (24.2%) strongly agreed on the same. These findings concur with the responses of the head teachers that enrolment as a result of FPE had increased the number of pupils in schools hence affecting KCPE performance. According to the Republic of Kenya (2007) the declaration of Free Primary Education in Kenya led to a rise in pupils' enrolment which has an implication on teaching and learning.

The dramatic rise in enrolment rates in schools as a result of FPE presented a number of challenges. For example, there was overcrowding in classrooms as most schools did not have adequate classrooms to accommodate the large number of pupils that enrolled under the FPE (UNESCO, 2005). The findings of this study are in line with a study by Chepchieng and Kiboss (2010) in a selected number of developing countries. For instance in Nigeria and India the study showed that there was a wide gap in pupil teacher ratio of between 1:30 to 1:80 in public primary schools. This is in sharp contrast to a pupil teacher ratio of 1:25 commonly observed in developed countries. The sudden increase in the number of pupils in class did not go hand in hand with the increase in the number of teachers which compromised the quality of teaching hence affecting pupil performance.

4.5 Influence of quality of teaching on pupils' KCPE performance

The study also sought to establish the influence of teaching on pupils' KCPE performance. . The headteachers were therefore asked to indicate the extent to which they agreed or disagreed with the statements seeking information on the same. The data is presented in Table 4.11.

Table 4.11 Headteachers responses on the influence of quality of teaching on KCPE performance

Statement	SA		A		D	
	F	%	F	%	F	%
FPE has affected the quality of teaching negatively	7	35.0	4	20.0	9	45.0
Teachers are not able to control the high number of teachers in the classrooms	1	5.0	11	55.0	8	40.0
Poor quality of teaching due to high number has hampered pupils' performance	6	30.0	10	50.0	4	20.0
Overcrowded classes has reduced teachers individual attention to pupils	16	80.0	4	20.0	0	00
FPE has negatively affected the quality of teaching in schools	11	55.0	6	30.0	3	15.0

Table 4.11 presents data on the influence of quality of teaching on KCPE performance. The data revealed that 7 (53%) strongly agreed that FPE has affected the quality of teaching negatively while 4 (20%) agreed to the statement. In addition, more than half the number of headteachers 11 (55%) agreed that teachers are not able to control the high number of teachers in the classrooms. It was also agreed by majority of the headteachers, 16 (80%) that, poor quality of teaching due to high student numbers has hampered pupils'

performance. Data also showed that overcrowded classes have reduced teachers individual attention to pupils as it was strongly agreed so by 16 (80%) and 4 (20%) who agreed. The data also revealed that FPE had negatively affected the quality of teaching in schools. This was shown by 11 (55%) who strongly agreed and 6 (30%) who agreed to the statement.

The teachers were also asked to indicate the extent to which they agreed or disagreed with the statements seeking information related to quality of teaching and KCPE performance. The data is presented in Table 4.12.

Table 4.12 Teachers’ responses on the influence of quality of teaching on KCPE performance

Statement	SA		A		D		SD	
	F	%	F	%	F	%	F	%
FPE has affected the quality of teaching negatively	51	30.9	56	33.9	44	26.7	14	8.5
Teachers are not able to control the high number of teachers in the classrooms	39	23.6	53	32.1	37	22.4	36	21.8
Poor quality of teaching due to high number has hampered pupils’ performance	45	27.3	74	44.8	26	15.8	20	12.1
Overcrowded classes has reduced teachers individual attention to pupils	43	26.1	55	33.3	25	15.2	42	25.5
FPE has negatively affected the quality of teaching in schools	54	32.7	51	30.9	37	22.4	23	13.9

Data on the influence of quality of teaching on KCPE performance (Table 4.12) as reported by the teachers indicated that 51 (30.9%) strongly agreed that FPE

has affected the quality of teaching negatively while 56 (33.9%) agreed to the statement. Further while 39 (23.6%) teachers strongly agreed that teachers were not able to control the high number of pupils in the classrooms, 53 (32.1%) strongly agreed to the statement. It was revealed by 45(27.3%) teachers that poor quality of teaching due to high enrolment has hampered pupils' performance while 74 (44.8%) of the teachers agreed to the statement. Teachers either agreed or even strongly agreed that overcrowded classes had reduced teachers' individual attention to pupils. This was shown by 43 (26.1%) teachers who strongly agreed and 55 (33.3%) who agreed. Teachers were also in agreement that FPE had negatively affected the quality of teaching in schools as shows by 54 (32.7%) who strongly agreed and 51 (30.9%) who agreed to the statement. The findings of the teachers seemed to agree with the findings of the head teachers that poor quality of teaching affected KCPE performance.

The above findings are consistent with Ngware Oketch and Ezeh (2008) who noted that the teaching load in schools varied by school ownership and location. They revealed that teachers in public schools had huge workload compared to their counterparts in private schools. On the other hand Arnold (2000) revealed that large schools experience wider gaps in academic achievement. He noted that because huge workload results in less communication, interaction, and coordination throughout the school this contributes to lower student achievement.

4.6 Influence of teaching learning resources on KCPE performance

. The study also sought to establish the influence of teaching learning resources on KCPE performance. The headteachers were asked to indicate the extent to which they agreed or disagreed with statements that sought to establish how the availability of teaching and learning resources affected KCPE performance. The data is presented in Table 4.13.

Table 4.13 Headteachers' responses on the influence of teaching learning resources on KCPE performance

Statement	Available		Adequate		Inadequate		Not Available	
	F	%	F	%	F	%	F	%
Text books	1	5.0	3	15.0	10	50.0	6	30.0
Black board and chalks	15	75.0	5	25.0	0	00	0	00
Pens and pencils	6	30.0	0	00	14	70.0	0	00
Pupils exercise books	0	00	7	35.0	13	65.0	0	00
Teachers reference books	5	25.0	6	30.0	9	45.0	0	00
School library	0	00	0	00	0	00	20	100.0

Data in Table 4.13 showed that half the number of headteachers (50%) indicated that text books were either inadequate (50%) or were not available (30%). It was also revealed by 14 (70%) of the headteachers that pens and pencils were inadequate in the schools. A further 13 (65%) of the headteachers indicated that pupils exercise books were inadequate. Teacher's reference books were deemed as inadequate by almost half (45%) the number of headteachers while all the headteachers indicated that they did not have a school library in their schools. According to Agosiobo (2007), the use of teaching resources is important because

they motivate learners to learn as they offer stimulus variation and assist in sustaining learners' attention throughout the lesson. Learning resources clarify information, sometimes a concept may be complex and words alone cannot offer a clean explanation.

The teachers were asked to indicate the extent to which they agreed or disagreed with statements that sought to establish how the availability of teaching and learning resources affected KCPE performance. The data is presented in Table 4.14.

Table 4.14 Teachers' responses on the influence of teaching learning resources on KCPE performance

Statement	Available		Adequate		Inadequate		Not available	
	F	%	F	%	F	%	F	%
Text books	11	6.7	4	2.4	115	69.7	35	21.2
Black board and chalks	86	52.1	63	38.2	16	9.7	0	00
Pens and pencils	14	8.5	74	44.8	77	46.7	0	00
Pupils exercise books	14	8.5	50	30.3	101	61.2	0	00
Teachers reference books	7	4.2	61	37.0	83	50.3	14	8.5
Teachers guide books	35	21.2	0	00	116	70.3	14	8.5
School library	7	4.2	14	8.5	87	52.7	57	34.5

As shown in Table 4.14, teachers' responses on the influence of teaching learning resources on KCPE performance revealed that majority of the teachers 115 (69.7%) indicated that text books were inadequate, 101 (61.2%) indicated that pupils text books were inadequate while half the number of teachers 83 (50.3%)

indicated that teachers' reference books were inadequate. It was noted by 116 (70.3%) that teachers' guide books were inadequate while 87 (52.7%) indicated that they had no school library. The results of the teachers were in agreement with the findings of the headteachers concerning the availability of resources in the schools. These findings concur with those of a study a study by Lowe (2009) on effective teaching and learning resources in South Africa, who found that, lack of relevant teaching materials caused dismal students' performance in National Examinations. Teaching and learning activities can be obtained through cultivating students' creativity and motivation by way of linking the classroom with natural and social environment. The study also found out that students' poor achievement is mainly caused by lack of relevant textbooks which are tailored to the requirements of the curriculum and lack of other publications and handbooks. Therefore when learners come to school with their own learning materials; it is the responsibility of the teachers to use what the learners come with to improve learning. The findings of this study are in line with Mwamwenda and Mwamwenda (1987), reporting on the study carried out on the effects of a school's physical facilities on the performance of standard seven pupils in examinations, in Malawi which established that availability of such facilities had a direct link with the performance of pupils.

The study also agree with Werunga, Chepkwony, Kihumba and Sindabi (2012) who carried out a study on the influence of free primary education on Kenya

certificate of primary education performance in Kenya. The findings of the study established that implementation of FPE led to inadequate learning facilities (classrooms, desks and chairs), fewer tests for pupils which lack in content and depth and increased work load among teachers. This has in turn compromised KCPE performance. The findings also agree with Wachira, Mwenda, Muthaa, and Mbugua (2011) who carried out another study on Impact of Free Primary Education on management of primary schools in Embu West District in Kenya. Results obtained indicated that FPE has negatively impacted on the management of physical resources

4.7 Influence of pupil teacher ratio on KCPE performance

The final objective of the study sought to establish the influence of pupil teacher ratio on KCPE performance. Increased enrolments may suggest school systems have increased their capacity to accommodate more children although this does not necessarily translate into improved educational quality. The study therefore sought to establish the Influence of pupil teacher ratio on KCPE performance.

The respondents were asked to indicate the extent to which they agreed or disagreed with statements pertaining to the influence of pupil teacher ratio on KCPE performance. The data is presented in Table 4.15.

Table 4.15 Head teachers' responses on the influence of pupil teacher ratio on KCPE performance

Statement	Strongly Agree		Agree		Disagree	
	F	%	F	%	F	%
The number of teachers is not enough in this school	13	65.0	7	35.0	0	00
Teachers are forced to handle high number of pupils in this school	4	20.0	12	60.0	4	20.0
Pupil teacher ratio is very high in this school	3	15.0	11	55.0	6	30.0
Performance has been affected by the high number of pupil teacher ratio in this school	6	30.0	11	55.0	3	15.0
There is need to increase the number of teachers if performance is to improve	11	55.0	9	45.0	0	00

Data presented on table 4.15 revealed that majority; 13 (65%) strongly agreed that the number of teachers were not enough in their school with 7 (35%) agreeing to the statement. While 12 (60%) agreed that teachers are forced to handle high number of pupils in their school; only 4 (20%) strongly agreed to the statement. Eleven (55%) agreed that pupil teacher ratio is very high in their schools, while 6 (30%) agreed. It was also reported by 11 (55%) head teachers that performance has been affected by the high number of pupil teacher ratio in schools, while only 6 (30%) agreed to the statement. On the item that there is need to increase the number of teachers if performance is to improve, 11 (55%) strongly agreed while only 9 (46%) agreed.

The researcher also asked the teachers to indicate the extent to which they agreed or disagreed with statements on the influence of pupil teacher ratio on KCPE performance. The data is presented in Table 4.16.

Table 4.16 Teachers' responses on the influence of pupil teacher ratio on KCPE performance

Statement	Strongly Agree		Agree		Disagree		Strongly Disagree	
	F	%	F	%	F	%	F	%
The number of teachers is not enough in this school	12	7.3	85	51.5	49	29.7	19	11.5
Teachers are forced to handle high number of pupils in this school	67	40.6	64	38.8	27	16.4	7	4.2
Pupil teacher ratio is very high in this school	57	34.5	61	37.0	47	28.5	0	00
Performance has been affected by the high number of pupil teacher ratio in this school	71	43.0	20	12.1	25	15.2	49	29.7
There is need to increase the number of pupils if performance is to improve	0	00	0	00	53	32.1	112	67.9

Data on the influence of pupil teacher ratio on KCPE performance as in Table 4.16 revealed that majority of the teachers 85 (51.5%) indicated that the number of teachers was not enough in their school while on the same item, 12 (7.3%) strongly agreed. While 67 (40.6%) strongly agreed that teachers are forced to handle high number of pupils in the school, 64 (38.8%) agreed to the statement. In addition, majority of the teachers, 57 (34.5%) strongly agreed that Pupil teacher ratio is very high in the school, while 61 (37.0%) agreed.

All in all, the teachers were in agreement that KCPE performance has been affected by the high number of pupil teacher ratio in the schools as it was reported by 71 (43%) who strongly agreed and 20 (12.1%) who agreed. All the teachers

disagreed that there is need to increase the number of pupils if performance is to improve as reported by 53 (32.1%) who disagreed and 112 (67.9%) who disagreed. The results of the teachers and the headteachers were in agreement that teacher pupil ratio had an influence on KCPE performance. According to Benbow, Oliver & Said (2007) an ideal Pupil-teacher ratio should be 40:1. In a study done in Ethiopia, Verwimp (1999) argued that there is a negative correlation between the quality of teaching and the Pupil-teacher ratio. Another study in Kenya by Duflo, Dupas and Kremer (2008) revealed that in lower grades, reducing class size from 80 to 40 without any change does not lead to a significant increase in test scores. A similar finding was reported by Banerjee et al (2007) in India where no impact of the reduction in class size was achieved through the hiring of remedial education teachers for students who remained with a regular teacher.

CHAPTER FIVE

SUMMARY CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter highlights the findings of the study based on the data collected from respondents. The chapter presents the summary of the study, summary of findings, conclusions, recommendations and suggestions for further research.

5.2 Summary of the study

The purpose of this study was to investigate the influence of Free Primary Education on KCPE performance in Kitise Division, Kathonzwi Sub-County, Makueni County, Kenya. The study was guided by four objectives. Objective one sought to assess the influence of pupils enrolment on KCPE performance in Kitise Division, Kathonzwi Sub-County; objective two sought to determine the influence of quality of teaching on pupils' KCPE performance in Kitise Division, Kathonzwi Sub-County; objective three aimed at establishing the influence of teaching learning resources on KCPE performance in Kitise Division, Kathonzwi Sub-County while the fourth objective sought to investigate the influence of pupil teacher ratio on KCPE performance in Kitise Division, Kathonzwi Sub-County.

The literature review focused on pupils enrolment and pupils' academic performance, quality of teaching and pupils' performance, learning resources and pupils' performance and pupil teacher ratio and pupils academic achievement. The chapter also presents the theoretical and conceptual frameworks for the study.

The study was carried out using descriptive survey design which Kothari (2007) notes that the design is intended to produce statistical information about aspects of education that interest policy makers and educators. The study was carried out in Kitise Division, Makueni County. Kitise Division being one of the four Divisions of Kathonzwi Sub-County. The target population comprised of 24 head teachers and 172 teachers. The sample for the study was 24 head teachers and 119 teachers. This study used questionnaires to collect data. Content validity on the other hand was used by the researcher to check whether the items in the questionnaire answered the research questions. The correlation coefficient was 0.723 for headteachers and 0.712 for teachers hence the questionnaires were deemed reliable for data collection. Descriptive statistical methods such as frequencies and percentages were used to analyse and present the data.

5.3 Summary of findings

The summary of the findings are presented on the basis of the research objectives.

5.3.1 To assess the influence of pupils enrolment on KCPE performance in Kitise Division, Kathonzwi Sub-County

Findings on the influence of pupils' enrolment on KCPE performance in Kitise Division, Kathonzi Sub-County revealed that all the 20(100%) headteachers agreed that high number of pupils after the introduction of FPE has led to poor performance. It was also agreed by all the headteacher respondents that the number of pupils has been high in their schools. A further majority also agreed that the high enrolment has not been proportional to the number of teachers; while 16 (80%) agreed that teachers were not able to cope with the high number of pupils during teaching and learning. Majority of the teachers agreed that high number of pupils after the introduction of FPE has led to poor performance. This was shown by 59(35.8%) who strongly agreed and 71(43%) who agreed to the statement. It was also revealed by 63 (38.2%) who strongly agreed that the number of pupils has been high in their school while 53 (32.1%) agreed to the statement.

The findings of this study are in line with a study by Chepchieng and Kiboss (2010) in a selected number of developing countries. For instance in Nigeria and India the study showed that there was a wide gap in pupil teacher ratio of between 1:30 to 1:80 in public primary schools. This is in sharp contrast to a pupil teacher ratio of 1:25 commonly observed in developed countries. The sudden increase in the number of pupils in class did not go hand in hand with the increase in the number of teachers which compromised the quality of teaching hence affecting pupil performance.

5.3.2 To determine the influence of quality of teaching on pupils' KCPE performance in Kitise Division, Kathonzwi Sub-County

Findings on second research objective revealed that 7 (53%) strongly agreed that FPE has affected the quality of teaching negatively, while 4 (20%) agreed to the statement. More than half the number of headteachers 11 (55%) agreed that teachers are not able to control the high number of pupils in the classroom. It was also agreed by majority of the headteachers 16 (80%) that poor quality of teaching due to high number of pupils has hampered pupils' performance. Data also showed that overcrowded classes has reduced teachers individual attention to pupils as it was strongly agreed so by 16 (80%) and 4 (20%) who agreed. The data also revealed that FPE had negatively affected the quality of teaching in schools. This was shown by 11 (55%) who strongly agreed and 6 (30%) who agreed to the statement.

Findings from the teachers responses indicated that 51 (30.9%) strongly agreed that FPE has affected the quality of teaching negatively while 56 (33.9%) agreed to the statement. Further while 39 (23.6%) teachers strongly agreed that teachers were not able to control the high number of pupils in the classrooms, 53 (32.1%) strongly agreed to the statement. It was revealed by 45 (27.3%) that poor quality of teaching due to high number of pupils has hampered pupils' performance while 74 (44.8%) of the teachers agreed to the statement. Teachers either agreed or even strongly agreed that overcrowded classes had reduced teachers' individual

attention to pupils. This was shown by 43 (26.1%) who strongly agreed and 55 (33.3%) who agreed.

The above findings are consistent with Ngware Oketch and Ezeh (2008) who noted that the teaching load in schools varied by school ownership and location. They revealed that teachers in public schools had huge workload compared to their counterparts in private schools. On the other hand Arnold (2000) revealed that large schools experience wider gaps in academic achievement. He noted that because huge workloads result in less communication, interaction, and coordination throughout the school this contributes to lower student achievement.

5.3.3 To establish the influence of teaching learning resources on KCPE performance in Kitise Division, Kathonzwani Sub-County

Results on the influence of teaching learning resources on KCPE performance in Kitise Division, Kathonzwani Sub-County revealed that half the number of headteachers (50%) indicated that text books were either inadequate (50%) or were not available (30%). It was also revealed by 14 (70%) of the headteachers that pens and pencils were inadequate in the schools. A further 13 (65%) of the headteachers indicated that pupils exercise books were inadequate. Teachers reference books were also said to be inadequate by almost half (45%) the number of headteachers while all the head teachers (20 or 100%) indicated that they did not have a school library in their schools. Majority of the teachers 115 (69.7%)

indicated that text books were inadequate where 101(61.2%) of the teachers indicated that pupils text books were inadequate while half the number of teachers 83 (50.3%) indicated that teachers reference books were inadequate. It was noted by 116 (70.3%) teachers that teachers guide books were inadequate while 87 (52.7%) indicated that they had no school library

The above findings agree with those of Werunga, Chepkwony, Kihumba and Sindabi (2012) who carried out a study on the influence of free primary education on Kenya certificate of primary education performance in Kenya. The findings of the study established that implementation of FPE led to inadequate learning facilities (classrooms, desks and chairs), fewer tests for pupils which lack in content and depth and increased work load among teachers. This has in turn compromised KCPE performance. The findings also agree with Wachira, Mwenda, Muthaa, and Mbugua (2011) who carried out another study on Impact of Free Primary Education on management of primary schools in Embu West District in Kenya. Results obtained indicated that FPE has negatively impacted on the management of physical resources

5.3.4 To investigate the influence of pupil teacher ratio on KCPE performance in Kitise Division, Kathonzwi Sub-County

Results on the influence of pupil teacher ratio on KCPE performance in Kitise Division, Kathonzwi Sub-County showed that majority 13 (65%) of the head teachers strongly agreed that the number of teachers was not enough in their

schools, with 7 (35%) agreeing to the statement while 12 (60%) agreed that teachers are forced to handle high number of pupils in the school, where 4 (20%) strongly agreed to the statement. Eleven (55%) head teachers agreed that pupil teacher ratio is very high in their schools while 6 (30%) agreed. It was also reported by 11 (55%) who strongly agreed that academic performance has been affected by the high number of pupil teacher ratio in the schools, while 6 (30%) agreed. In the item that there is need to increase the number of teachers if performance is to improve, 11 (55%) strongly agreed with 9 (46%) agreed.

Just like the head teachers, majority of the teachers 85 (51.5%), indicated that the number of teachers was not enough in the school.. While 67 (40.6%) strongly agreed that teachers are forced to handle high number of pupils in the school, 64 (38.8%) agreed to the statement. Majority of the teachers 57 (34.5%) also strongly agreed that pupil teacher ratio is very high in the school while 61 (37.0%) agreed. The teachers were in agreement with the head teachers that performance has been affected by the high number of pupil teacher ratio in their schools as it was reported by 71 (43%) who strongly agreed and 20 (12.1%) who agreed. All the teachers disagreed that there was need to increase the number of pupils if performance is to improve as reported by 53 (32.1%) who strongly disagreed and 112 (67.9%) who disagreed.

According to Benbow, Oliver & Said (2007) an ideal Pupil-teacher ratio should be 40:1. In a study done in Ethiopia, Verwimp (1999) argued that there is a

negative correlation between the quality of teaching and the Pupil-teacher ratio. Another study in Kenya by Duflo, Dupas and Kremer (2008) revealed that in lower grades, reducing class size from 80 to 40 without any change does not lead to a significant increase in test scores. A similar finding was reported by Banerjee et al (2007) in India where no impact of the reduction in class size was achieved through the hiring of remedial education teachers for students who remained with a regular teacher.

5.4 Conclusions

Based on the findings of the study, the study concluded that pupil's enrollment had an influence on KCPE performance in Kitise Division, Kathonzwi Sub-County. This was shown by the fact that FPE has led to increased number of pupils who impacted negatively on the teaching and learning process hence poor performance in KCPE. The high enrolment has not been proportional to the number of teachers and that teachers were not able to cope with the high number of pupils during teaching and learning. Majority of the head teachers and teachers agreed that a high number of pupils after the introduction of FPE has led to poor performance. The study also concluded that poor quality of teaching affected pupils' KCPE performance in Kitise Division, Kathonzwi Sub-County. The headteachers and teachers were of the opinion that FPE has negatively affected the quality of teaching, teachers are not able to control the high number of pupils in the classrooms, and poor quality of teaching due to high number of pupil has

hampered pupils' performance. In addition, overcrowded classes had reduced teachers' individual attention to pupils. All these affected quality of teaching hence leading to poor performance in KCPE.

The study further concluded that teaching learning resources affected KCPE performance in Kitise Division, Kathonzwi Sub-County. Both headteachers and teachers agreed that text books were inadequate and in some cases were not available while pens and pencils were inadequate in the schools in addition to pupils' exercise books which were inadequate. All the headteachers and teachers indicated that they did not have a school library in their schools. Inadequacy of teaching and learning resources had thus a negative influence on KCPE performance. The study also concluded that pupil teacher ratio affected KCPE performance in Kitise Division, Kathonzwi Sub-County. This was revealed by majority of headteachers and teachers who indicated that the number of teachers was not enough and that teachers were forced to handle high number of pupils hence leading to poor KCPE performance.

5.5 Recommendations

Based on the findings of the study, the following were the recommendations:

- i. There is need for the government to build more schools that can accommodate the large number of pupils in primary schools in Kitise division in Makueni County.

- ii. That the government should empower teachers by providing them with in-service courses to improve their teaching hence improving quality of teaching and learning and ultimately improving pupils performance in KCPE.
- iii. There is need for the government to provide more funds to schools and to monitor its use to ensure that primary schools are equipped with teaching / learning resources such as desks/ tables, classrooms and libraries. This will also boost academic performance.
- iv. There is need for the government to employ more teachers in the right ratio to counteract the high number of pupils in primary schools. This will ensure individual learners' needs are taken care of and that high academic standards are realized.

5.6 Suggestions for further studies

The researcher suggests that a study be carried on parental involvement and its influence on pupils' academic performance in KCPE in Kitise division.

The study also suggests that another study should be carried out to examine the effect of social economic factors on school KCPE performance in the Kitise division. This will be important because the social economic factors of the region seem to affect indirectly the students' attitudes towards learning.

REFERENCES

- Abagi, O, & Odipo, G. (1997). Efficiency of Primary Education in Kenya: Situational Analysis and Implications for Educational Reform. Discussion Paper No. DP004/97.
- Abagi, O. & Olweya, J. (1999). Achieving Primary Education Universal 2015 – Where the reality lies: Challenges & Future Strategies, Nairobi, IPAR
- Adams, D. (1971). Education in National Development, Ed. London.
- Agosiobo, C. (2007). Effective Teaching in Schools: Theory and Practise 2 nd Edition. Deltal Place: Stanley Thornes Ltd.
- Alubisia, A. (2004). UPE Myth or Reality, Discussion paper, Oxfam GB and ANCEFA.
- Arnold, J. (1991). Work Psychology. London: Pitman Printing Press.
- Arnold. L, Gaddy, B. & Dean, C. B. (2004). A look at the condition of rural education research: Setting a direction for future research. Aurora: *Mid-Continent Research for Education and Learning*.
- Banerjee, A., Cole, S. Duflo, E. & Linden, L. (2007). ‘‘Remedying Education: Evidence from Two Randomized Experiments in India’’, *Quarterly Journal of Economics*
- Barasa, M.N. & Ngugi, N. (2011). Educational Administration. Nairobi: Nairobi University Press.
- Benjamin, K. (2005). Education for all or enrolment for all. Unpublished Dissertation, Vaxjo University.
- Brewer, K., Gamoran, T. Ehrenberg & Willms, J. (2001). The class size controversy (CHERI working paper) No.14 .Cornel University, ILR school.
- Bulger, R.E. (2002). Research with Human Beings. In Bulger, R.E., Heitman, I., & Reiser, J. (Ed.). The Ethical Dimensions of the Biological and Health Sciences (pp. 117-125). New York: Cambridge University Press.
- Chepcheng, A. & Kiboss, P. (2010). Recruiting Retaining and Retraining Secondary Schools. Teachers and Principals in Sub – Saharan African:

Secondary Education in Africa. Thematic Study No. 4. Ireland: World Bank.

Chimombo, J. P. G. (2005). Quantity verses quality in education: Case Studies in Malawi.” *International Review of Education*, 51,155-172.

Chuck, A. (2009). Disparities in the System: The effects of Free Primary Education in Quality of Education in Nairobi Public Schools. *SIT Kenya: Development, Health and Society*, 20, 102-104.

Cohen, L. M., & Morrison, K. (2000). *Research Methods in Education*. Routledge Falmer Publishers, New York.

Daily Nation (2011). Teachers strike brings into focus Kenya’s poor quality of education.

Daily Nation Newspaper 9th Sept. 2011, Nairobi, Nation Media Group.

Duflo, E., P. Dupas & Kremer, M. (2007). Peer Effects, Pupil-Teacher Ratios, and Teacher Incentives: Evidence from a Randomized Evaluation in Kenya. *Mimeo*.

Garry, B. (2010). *The effect of School Resources on Student Achievement and Adult Success*, Washington D.C: Brookings Institution

GOK (2005). *A policy Framework for Education, Training & Research, Meeting the challenges of Education, Training and Research paper No.10,MOEST, Nairobi*.

GOK (2008). *Education Sector Report 2008: Realizing vision 2030 goals through effective and efficient spending*. Nairobi: Ministry of Education.

GOK (2010). *Education Sector Report 2010: Realizing vision 2030 goals through effective and efficient spending*. Nairobi: Ministry of Education.

Greenwald, R., Hedges, L. & Lain, D. R. (1996) ‘The effect of school resources on student achievement’” *Review of Educational Research* 66 no.3 pp 361-396

Hanushek, E.K. (1999). “Some findings from an Independent Investigation of the Tennessee STAR Experiment and from other Investigation of size effects”, *Education Evaluation and Policy Analysis*, 21(2):143-163

- Holla M. & Kremer, A. (2008). *Increasing the quantity and quality of human capital investment in the developing world.*
- Irin, (2006). Kenya: The Challenges of Providing Free Primary Education. <http://www.irinnews.org/report>. Accessed 14/6/2011 Kenya
- Kathonzweni Sub County Education Office (2014). KCPE 2003-2012 Examination Results Analysis.
- Kitamura, Y. (2005). Financing Basic Education in Developing Countries: An Analysis of International Commitments to the EFA Fast-Track Initiative, Discussion Paper, Negoya University.
- Kitavi, M. J. (2011). *An investigation of the factors influencing performance in KCPE in Kathonzweni Division, Makueni District.*
- Klier, A. (2005). *Girls and Schools in Sub-Saharan Africa: From Analysis to Action.* Washington DC: World Bank.
- Kombo, D. K. & Tromp, D. L. A. (2006). *Proposal and Thesis Writing.* Nairobi: Pauline Publications.
- Kothari, C.R. (2007). *Research Methodology: Methods and Techniques.* New Delhi: Willey Eastern Ltd.
- Lowe W. T. (2009). *Structure and social studies.* Ithasa. Irudon. Cornell University press.
- Maiyo, J. A., & Ashioya, L.A. (2009). "Poverty Alleviation: The Educational Planning Perspective." Department of Educational planning and Management. Unpublished MED Thesis. Masinde Muliro University of Science and Technology.
- Majanga, E. K Masonga, J, W & Sylvia, V. K (2010). *The effects of class size on classroom interaction Mathematics Discourse in the wake of FPE. A study of public primary school in Nakuru municipality, Kenya.*
- Margo, R. (2010). Kenya, Lesotho, Malawi and Uganda: Impact of Universal Primary Education. Washington, D.C: World Bank.
- Miller. D. & Sellar (2007). School Facilities and Pupils' Academic Achievements. Transkei University Research Study, South Africa: Unpublished.

- Mji, A. & Makgato. (2006). Factors that associate with high school learners' poor performance. Spotlight on Mathematics and Physical Sciences South Africa. *Journal of Education*. Vol 26.
- Ministry of Education, (2006). Millennium Development Goals: Need Assessment Report, achieving Universal Primary Education. Nairobi: Government printer.
- MOE (2009). Education Facts & Figures 2002-2008; Education Management Information Systems (EMIS). Nairobi
- MoEST. (2006). Education Insight for Quality Information, Education and Communication (January - February 2006).
- MoEST (2009). Free Primary Education, Every Child in School. Nairobi. Government Printer.
- Morumbwa, J. (2006). Factors influencing performance in Kenya Certificate of Primary Education (KCPE) in Nyamaiya Division, Nyamira District. MA thesis University of Nairobi.
- Mugenda, M. O. & Mugenda A.G. (2003). *Research methods: Quantitative and Qualitative Methods Approaches*. Nairobi: Acts Press
- Mumasi, R. R. (2012). The Effect of Teacher Qualification on Student Achievement Gain: Evidence from Fundescola schools in Brazil 1999-2003. Unpublished MED Thesis. Stanford University Brazil
- Mwamwenda & Mwamwenda (1987). Effects of Schools' Physical Facilities on the Performance of Standard Seven Pupils in Examinations, Botswana Inc.
- Nasibi, M. W. (2003). Instructional Methods: General Methods of Teaching across the Curriculum, Kenyatta University, Nairobi. Oxfam International (2003). Free Primary Education in Kenya. Oxfam International. Nairobi.
- Ngware, M., Oketch, & Ezeh, A. (2008) What Quality of Primary Education are Children in Urban Schols Receiving?, Nairobi: APHRC Working paper No.39,2008
- Obasi, E. (2000). The Impact of Economic Recession on UPE in Nigeria. *International Journal of Educational Development* 20(3), 189 – 207. Stanford University

- Ocharo C. M. & Mokeira, G. (2015). Implications of Free Primary Education on KCPE Examinations Performance In Public Primary Schools of Kemera Division, Manga Sub-County, Nyamira County, Kenya. *International Journal of Recent Research in Social Sciences and Humanities (IJRSSH) Vol. 2, Issue 3, pp: (52-64).*
- Republic of Kenya. (2005). Sessional paper No. 1 on Policy Framework for Education, Training and Research. Nairobi: Government Printer.
- Republic of Kenya. (2009). Education Sector Report: Realizing Vision 2030 Goals Through Effective and Efficient Public Spending. Kenya. Nairobi.
- RoK (2005b). Education Sector Report, Government Printer, Nairobi.
- Salamba, S., & H. Zaman (2007). Abolishing School Fees in Malawi: The Impact on Education Access and Equity, *Education Economics*, 15, 359-375.
- Schultz, T.P. (2002). Why Government should invest more to educate Girls” *World Development*, vol.30No.2 pp207-225.
- Sifuna, D.N & Sawamura, N. (2008) Universalizing primary Education in Kenya; is it beneficial and suitable? *Journal of International Cooperation in Education*.
- Sifuna, D.N. (2003). Free primary Education: Every child in school, Nairobi: MOEST,
- Sushila, S. J. (2012). *Factors affecting Students Performance in Kenya Certificate of Secondary Education examination in Public Secondary Schools in Maseno Division*. M.Ed Research Project, UON: unpublished.
- Sweeney, J. D. (2004). A study of some factors related to mathematical achievement in Mississippi High schools as measured on the American College test. Published PhD Thesis University of Mississippi, USA.
- The Daily Nation. Nairobi: Nation Media Group Ltd.
- TSC (2006). Policy on teacher recruitment and selection, Nairobi: Teachers Service Commission
- UNESCO (2005). Challenges of Implementing FPE in Kenya, UNESCO. Paris.
- UNESCO (2005). *EFA: The Quality Imperative; 2005; Monitoring Report*. Paris: EFA Secretariat.

- UNESCO. (2005). Challenges of implementing Free Primary Education in Kenya: Gender Perspectives and trends. Nairobi: UNESCO.
- UNICEF. (2005). Regional disparities threaten progress towards education for all. Retrieved from <http://www.unicef.org/infobycountry/Kenya/newsline.html>
- USAID. (2001). Issues Briefs from Africa Bureau Office of Sustainable Development. USAID. Nairobi.
- Verwimp, P. (1999). Measuring the quality of education at two levels: A case study of primary schools in rural Ethiopia'' *International Review of Education*, 45(2):6-19
- Vos, R., Bedi, R., Kimalu, P., Manda, D. K., Nafula, N. N., & Kimenyi, M. S. (2004). Achieving Universal Primary Education: Can Kenya afford it? Department of Economics. Working Paper Services, Storrs.
- Wachira, C. W. Mwenda E. G. Muthaa M. & Mbugua Z. K. (2011). Impact of Free Primary Education on management of primary schools in Embu West District in Kenya. *International Journal of Business, Humanities and Technology Vol. 1 No. 2; September 2011*
- Wamukuru, K., Kamau, D. & Ochola, O. (2006). Challenges Facing the Implementation of Free Primary Education: A teacher's perspective .Afr.Qual.Edu.3 pp 1-15
- Wasanga, P.; Ambia, G. & Mwai, N. (2010). Assessment for the 21st Century: Impact of School Management Factors on Academic Achievement of Primary School Pupils in Kenya. Paper Presented During the 36th IAFA Annual Conference in Bangkok, Thailand.
- Werunga R. K., Chepkwony, S. M. K., Kihumba G., & Sindabi, O. (2012). The influence of Free Primary Education on Kenya certificate of primary education performance in Kenya. *Problems of education in the 21st century Volume 39*, 2012.
- Word Bank report, D. I. (2012). School enrolment, primary; (% gross) in Tanzania. Word Education Forum, 2000. The dark framework for action education for all. Meeting collective commitments, Paris, and UNESCO.
- Zhang, Y., Postlethwaithe, T. N & Grisay, A. (2008). A view Inside Primary Schools: A world Education Indicators (WEI) cross- national study. Montreal: UNESCO Institute of Statistics.

APPENDICES

APPENDIX I: LETTER OF INTRODUCTION

The Headteacher

_____ Primary school

Dear Sir / Madam,

RE: REQUEST TO CARRY OUT RESEARCH IN YOUR SCHOOL

I am a master's student at South Eastern Kenya University carrying out a study on **“Influence of Free Primary Education on KCPE performance in Kitise Division, Kathonzwi Sub-County, Makueni County, Kenya”**. Your school has been selected as one of the few for the purpose of undertaking the study. I am hereby kindly requesting you to give your honest responses to the questionnaire items attached to this letter. Your response will be highly appreciated. . There is no wrong or right answer. Your identity will be treated with confidentiality and the information used strictly for academic purposes. Thank you in advance for the anticipated cooperation.

Yours faithfully,

Kanini Nyiwa

M.Ed student

APPENDIX II
QUESTIONNAIRE FOR HEADTEACHERS

This questionnaire is designed to gather information on “Influence of Free Primary Education on KCPE performance in Kitise Division, Kathonzwi Sub-County, Makueni County, Kenya. You are kindly requested to tick (✓) the appropriate response or respond as indicated. Do not put your name or any other form of identification. Your identity will be confidential and the information will only be used for the purpose of this study. Please respond to all items.

Section A: Demographic data

Please indicate the correct option by inserting a tick (✓) in appropriate space provided

1. What is your gender?

Female []

Male []

2. What is your age in years?

Below 25 [] 25 – 30 []

31 – 35 [] 36 – 40 []

41 – 45 [] 46– 50 []

51 and above []

3. What is your highest professional qualification?

P.1 [] Diploma []

Degree [] Masters []

Others specify _____

4. What is your professional experience?

Below 5 years [] 5 – 10 []

11 – 15 [] 16 – 20 years []

21 – 25 [] 16-20 []

26 and over []

5. Indicate the performance of in KCPE in your school in the following years

Year	2010	2011	2012	2014	2015
Marks out of 500 (mean)					

Section B: Pupils’ enrollment and KCPE performance

Indicate the extent to which you agree with the following statements

Key

4 = Strongly agree; 3 = Agree; 2 = Disagree; 1 = Strongly disagree

SN	Statement	4	3	2	1
1	High number of pupils after the introduction of FPE has led to poor performance				
2	The number of pupils has been high in this school				
3	The high enrolment has not been proportional to the number of teachers				
4	Teachers are not able to cope with the high number of pupils during teaching and learning				
5	Effective teaching has been hampered by the high number of pupils				

Section C: Quality of teaching KCPE performance

Indicate the extent to which you agree with the following statements

Key

4 = Strongly agree; 3 = Agree; 2 = Disagree; 1 = Strongly disagree

SN	Statement	4	3	2	1
1	FPE has affected the quality of teaching negatively				
2	Teachers are not able to control the high number of teachers in the classrooms				
3	Poor quality of teaching due to high number has hampered pupils' performance				
4	Overcrowded classes has reduced teachers individual attention to pupils				
5	FPE has negatively affected the quality of teaching in schools				

Section D: Teaching learning resources KCPE performance

Indicate the availability and adequacy of the following learning resources in your school

Resource	Available	adequate	inadequate	Not available
Text books				
Black board and chalks				
Pens and pencils				
Pupils exercise books				
Teachers text books				
Teachers guide books				
School library				

Section E: Pupil teacher ratio KCPE performance

Indicate the extent to which you agree with the following statements

Key

4 = Strongly agree; 3 = Agree; 2 = Disagree; 1 = Strongly disagree

SN	Statement	4	3	2	1
1	The number of teachers is not enough in this school				
2	Teachers are forced to handle high number of pupils in this school				
3	Pupil teacher ratio is very high in this school				
4	Performance has been affected by the high number of pupil teacher ratio in this school				
5	There is need to increase the number of pupils if performance is to improve				

APPENDIX III

QUESTIONNAIRE FOR TEACHERS

This questionnaire is designed to gather information on “Influence of Free Primary Education on KCPE performance in Kitise Division, Kathonzwani Sub-County, Makueni County, Kenya. You are kindly requested to tick (✓) the appropriate response or respond as indicated. Do not put your name or any other form of identification. Your identity will be confidential and the information will only be used for the purpose of this study. Please respond to all items.

Section A: Demographic data

Please indicate the correct option by inserting a tick (✓) in appropriate space provided

6. What is your gender?

Female []

Male []

7. What is your age in years?

Below 25 [] 25 – 30 []

31 – 35 [] 36 – 40 []

41 – 45 [] 46– 50 []

51 and above []

8. What is your highest professional qualification?

P.1 [] Diploma []

Degree [] Masters []

Others specify _____

9. How long have you been a teacher in your teaching profession?

Below 5 years [] 5 – 10 []

11 – 15 [] 16 – 20 years []

21 – 25 [] 16-20 []

26 and over []

10. How long have you been a teacher in this school?

Below 5 years [] 5 – 10 []

11 – 15 [] 16 – 20 years []

21 – 25 [] 16-20 []

26 and over []

Section B: Pupils' enrollment and KCPE performance

Indicate the extent to which you agree with the following statements

Key

4 = Strongly agree; 3 = Agree; 2 = Disagree; 1 = Strongly disagree

SN	Statement	4	3	2	1
1	High number of pupils after the introduction of FPE has led to poor performance				
2	The number of pupils has been high in this school				
3	The high enrolment has not been proportional to the number of teachers				
4	Teachers are not able to cope with the high number of pupils during teaching and learning				
5	Effective teaching has been hampered by the high number of pupils				

Section C: Quality of teaching and KCPE performance

Indicate the extent to which you agree with the following statements

Key

4 = Strongly agree; 3 = Agree; 2 = Disagree; 1 = Strongly disagree

SN	Statement	4	3	2	1
1	FPE has affected the quality of teaching negatively				
2	Teachers are not able to control the high number of teachers in the classrooms				
3	Poor quality of teaching due to high number has hampered pupils' performance				
4	Overcrowded classes has reduced teachers individual attention to pupils				
5	FPE has negatively affected the quality of teaching in schools				

Section D: Teaching learning resources KCPE performance

Indicate the availability and adequacy of the following learning resources in your school

Resource	Available	adequate	inadequate	Not available
Text books				
Black board and chalks				
Pens and pencils				
Pupils exercise books				
Teachers text books				
Teachers guide books				
School library				

Section E: Pupil teacher ratio KCPE performance

Indicate the extent to which you agree with the following statements

Key

4 = Strongly agree; 3 = Agree; 2 = Disagree; 1 = Strongly disagree

SN	Statement	4	3	2	1
1	The number of teachers is not enough in this school				
2	Teachers are forced to handle high number of pupils in this school				
3	Pupil teacher ratio is very high in this school				
4	Performance has been affected by the high number of pupil teacher ratio in this school				
5	There is need to increase the number of pupils if performance is to improve				

APPENDIX IV

TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN

POPULATION

N	S	N	S	N	S
10	10	220	140	1,200	291
15	14	230	144	1,300	297
20	19	240	148	1,400	302
25	24	250	152	1,500	306
30	28	260	155	1,600	310
35	32	270	159	1,700	313
40	36	280	162	1,800	317
45	40	290	165	1,900	320
50	44	300	169	2,000	322
55	48	320	175	2,200	327
60	52	340	181	2,400	331
65	56	360	186	2,600	335
70	59	380	191	2,800	338
75	63	400	196	3,000	341
80	66	420	201	3,500	346
85	70	440	205	4,000	351
90	73	460	210	4,500	354
95	76	480	214	5,000	357
100	80	500	217	6,000	361
110	86	550	226	7,000	364
120	92	600	234	8,000	367
130	97	650	242	9,000	368
140	103	700	248	10,000	370
150	108	750	254	15,000	375
160	113	800	260	20,000	377
170	118	850	265	30,000	379
180	123	900	269	40,000	380
190	127	950	274	50,000	381
200	132	1,000	278	50,000	382
210	136	1,000	285	100,000	384

N is Population size, S is Sample size.

Source: Krejcie. R.V. and Morgan, D. (1970).

APPENDIX V RESEARCH PERMIT

APPENDIX VI LETTER OF AUTHORIZATION

