# FACTORS AFFECTING THE IMPLEMENTATION OF FRI PRIMARY EDUCATION IN PUBLIC PRIMARY SCHOOLS RUMURUTI ZONE, LAIKIPIA DISTRICT, KENYA

CONVERSITY OF THE TOTAL

# By Ezekiel Mwangi Waithaka

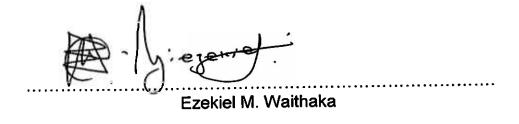
A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION IN EDUCATIONAL ADMINISTRATION.

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# **DECLARATION**

This project is my original work and has not been submitted for examination in any other university.



This project has been submitted for examination with my approvai as the university supervisor.

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I express my thanks to all teachers and school committee members who took part in the study. I record a deep sense of appreciation to friends, family members, relatives and colleagues who gave me their moral and professional support and co-operation in the course of this study.

Finally, I express my appreciation to the Ministry of Science and Technology for granting me the authority to carry out the study in Kenya.

# **DEDICATION**

I dedicate this work to my wife Beth and our son Daniel.

#### **ABSTRACT**

The purpose of this study was to identify the nature of the chailenges that affect Free Primary Education (FPE) in marginalized areas. The study also sought to determine the extent to which each challenge imparts on FPE.

The study's objectives sought to determine the challenges that affect FPE in marginal areas of Kenya. They found out the extent to which identified challenges affect FPE and established ways in which challenges imparting on FPE in marginal parts of the country can be addressed.

The study is significant in that it provides useful information in which decisions touching on FPE may be addressed by the government and stakeholders in the education sector.

To carry out the research the researcher used the questionnaire.

Questions were prepared in advance and paused in the same way to every participant. There were two sets of questionnaires covering two categories of respondents, namely teachers and school executive committee members. Answers given by respondents were classified into common codes. The data was

then analysed through descriptive statistics via the use of Social Science Programme (SPSS).

From research findings insecurity rated highest followed by drought. Curriculum relevance ranked third while child labour and teacher – student ratios ranked fourth and fifth respectively. Research findings also indicated that attending school was preferable to employment. Majority of students preferred attending school so long as their basic needs were met. However, findings indicated that child labour had a significant effect on the FPE programme in Rumuruti Zone.

Irrespective of the fact that small classes were preferred, good academic performance was not attributed to class size. Instead, commitment of teachers and curriculum relevance emerged as major factors positively affecting the FPE programme.

On the contrary, drought and insecurity negatively affected the FPE programme as they led to low pupil turnout at school.

Subsequently, the study recommended further research on drought mitigation and insecurity. Substantial findings were not made in the relationship between FPE and teacher – pupil ratios hence

recommendations on further investigations into the relationship between the two parameters.

In conclusion, the study recommended further research on the relationship between attitude of students and FPE as findings did not make distinct observations. The research also recommended further research on ways of improving security. Recommendations were also made on further studies on ways of mitigating drought.

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# (ix) Abbreviations

**AEO**: Area Education Officer

ASALS: Arid and Semi-Arid Lands

**DEO**: District Education Office

**DFID:** Danish Fund for International Development

FPE: Free Primary Education

ILO: International Labour Organisation

KANU: Kenya African National Union

KCPE: Kenya Certificate of Primary Education

**MOE**: Ministry of Education

NGO: Non-Governmental Organisation

PRSP: Poverty Eradication Strategy Programme

TSC: Teachers Service Commission

**UN**: United Nations

UNESCO: United Nations Educational, Scientific and Cultural

Organisation

WFP: World Food Programme

#### **CHAPTER ONE**

#### INTRODUCTION

#### **Background of the Study**

Free Primary Education first emerged as a pre-election promise by the Kenya African National Union (K.A.N.U) in 1963. However, it was not until 1971 that tuition fee was waived for pupils in disadvantaged districts.

Two years later (in 1973) Free Primary Education (F.P.E) was expanded hence covering the whole country. According to Sifuna (1990) this move increased primary school enrollment by one million pupils hence straining teachers, rendering classrooms inadequate and making learning materials insufficient.

The sudden influx of new pupils led to the need for extra classrooms.

The government had no money to put up classrooms hence handing over the burden of extra classes to parents and communities. To finance new classrooms, school committees imposed a building fee for each child and soon parents viewed the fees suspiciously as they contributed to a programme that was supposedly free. The influx of pupils caused an acute shortage of teachers as there had been an existing shortfall before introducing the programme. Schools and communities had to hire teachers thus bearing the very costs that FPE was supposed to relieve them.

Despite the realization that FPE had not succeeded previously, the government attempted to give it a new lease of life by declaring it once again in 1979. However, this declaration appeared to be political as the aforesaid challenges of FPE had not yet been addressed. The need for extra classrooms and teachers persisted and parents were once again forced to contribute financially. In 1984 the 8-4-4 (eight years of primary-four years of secondary and four years of university education) system was introduced and parents yet again found themselves financing new classrooms, laboratories and workshops. Besides the aforesaid challenges, parents bought textbooks and contributed to maintenance of equipment and facilities. Parents continued chipping into their pockets despite the government's persistence and assurance that it provided FPE.

With time the government realized that desired education goals and aspirations were not being realised. According to Aduda (2001) one of the reasons that caused the government to be unable to meet FPE goals and objectives was increased budgetary allocation that went to teachers salaries hence not being in favour of pupils. Aduda (2001) further states that though bursary funds doubled they were not of much benefit as they did not reach targeted children. This was attributed to corruption and red-tape associated with the bursary awarding process. This meant that needy

children were not accessing education though resources had been set aside for them.

To ensure bursary funds reached their target the government began providing bursaries to needy and bright students. Provision of textbooks, involvement of communities in management of schools and reformation of the curriculum to reflect needs of learners followed. These actions were all geared towards FPE and were strategies of reducing poverty in the Poverty Eradication Strategy Paper (PRSP).

Despite constant re-alignment in education policy, management and channeling of resources, cost sharing was still practised hence making education unaffordable to most parents who still provided classrooms, laboratories, workshops, equipment and textbooks.

Following the 2002 general elections, Kenya was for the first time in fourty years led by a new political party hence making a paradigm shift in education policy, goals, objectives and aspirations. More than ever before; the government sort to meet the UN Millenium Development Goals which aim at achieving FPE by 2015 so as to transform the nation from an impoverished developing country to a bustling and expanding economy by 2020.

Consequently, FPE was declared and implemented by the new government in January of 2003. As had always been the case with previous implementations of FPE, several problems were highlighted through the mass media, trade unions, politicians, educationists, parents and communities. Some of the cited problems included over enrollment, child labour, unfavourable attitude towards education and lack of relevance of the curriculum towards the needs of learners.

The problems affecting FPE it appears are even more pronounced in marginal parts of the country. This is in light of the observation that these areas are characterised by drought, insecurity and negative cultural practices. Marginalized areas tend to perform poorly at (Kenya Certificate of Primary Education) KCPE level when compared to other districts. This fact is highlighted in appendix 4 which illustrates the performance of respective districts in the 2003 and 2004 KCPE. The performance index of districts such as Tana River, Meru North, Moyale, Baringo, Wajir, Mandera and Laikipia indicates that they perform poorly. However, we do not have empirical evidence on the nature and effect of the factors that could be impacting negatively on FPE in marginal areas.

#### Statement of the Research Problem

The introduction of FPE in 2003 was a great achievement towards government effort to enhance access at this level of education.

However, views expressed in the mass media and by teachers unions suggested that the FPE program was not likely to realize its objectives due to numerous challenges it experienced since inception in 2003.

It needs to be mentioned that the factors impacting negatively on the program seemed to be more pronounced in the marginal parts of the country. This was evidenced by the dismal performance of pupils in these areas at the KCPE level. Nonetheless, there was no empirical evidence on the extent to which the negative factors in these areas were imparting on FPE. In this regard, this study is set to find out the nature and effects of the problems that could be affecting FPE in Rumuruti Zone which is diagrammatically illustrated by the map on Appendix 8.

# Purpose of the Study

The purpose of the study was to identify the nature of the challenges that affect FPE in marginalized areas. Secondly, the study sought to determine the extent to which each challenge imparted on FPE.

# **Objectives of the Study**

The study achieved the following objectives:

- It determined the challenges that affect FPE in marginal areas of Kenya.
- 2. It found out the extent to which each identified challenge affected FPE.
- It established ways in which the challenges imparting negatively on FPE in marginal parts of the country could be addressed.

#### **Research Questions**

The study answered the following research questions:

- 1. What challenges affect the implementation of FPE in Rumuruti zone?
- 2. To what extent does each challenge affect FPE in Rumuruti zone?
- 3. How can the challenges affecting FPE in Rumuruti zone be addressed?

# Significance of the Study

The findings of this study may provide useful information in which decisions touching on FPE may be addressed by the government and stakeholders in the education sector.

It may also enable planners and implementers of FPE at the Ministry of Education (MOE) to be aware of factors that hinder or improve the program in the marginal parts of the country. The study will also be beneficial to donors and NGO institutions that sponsor and finance FPE in Kenya. For instance, they will identify ways in which they can address the challenges they encounter in the endeavour to implement education programs in the marginal parts of the country.

#### **Assumptions of the Study**

The study made the following assumptions:

- a) That respondents had the information the researcher was seeking.
- b) That respondents were honest.
- c) That cultural barriers were not a hindrance between the researcher and the respondents.

### Limitations of the Study

Mwiria and Wamahiu (1995) define limitations as constraints, draw-backs or shortcomings that a researcher encounters and has no control over.

The limitations in this study were:

i. Generalising these findings to other parts of Kenya which needed to be done with a lot of caution.

ii. Secondly, the study was carried out on public primary schools.

Therefore, findings generated by this study should be generalized to private primary schools with a lot of caution. This is because private schools have students from different social-economic set-ups, different managers and sponsors.

#### **Delimitations of the Study**

Mwiria and Wamahiu (1995) state delimitations involve a purposeful and conscious action that makes research manageable.

They further state that the aspects of research that render themselves to delimitations include the topic area itself, the size of the population and the geographical area where a study is conducted.

In view of the definition above, the delimitations of this study included the fact that:

- a) The study was carried out in Rumuruti zone only.
- b) The study was focused on public primary schools only.
- c) The focus was only on the challenges faced by FPE and how they could be addressed.

#### **Definition of Significant Terms**

Significant terms are defined below.

- a) Free Primary Education: Refers to a government programme that sponsors all public primary schools with teaching equipment, text books, stationery, exams and teachers salaries among other facilities.
- b) Zone: Refers to an administrative area made up of several schools.
- c) Zonal Inspector: Refers to an Education Officer also known as a Zonal Officer. Such an officer doubles up as an inspector and is in charge of a zone hence heading several Headteachers.
- d) Area Education Officer: Refers to an officer who heads an Education Division. Such an officer heads a number of Zonal Inspectors or Education Officers.
- e) District Education Officer: Refers to an education officer who heads a district. Such an officer heads a number of Area Education Officers.

f) Marginal Area: Refers to disadvantaged areas characterised by low rainfall, remoteness, harsh weather, poor economic and agricultural activity.

#### Organisation of the Study

The introduction of this study was devoted to the background of the research problem. It states the purpose of the study, has variables, objectives and research questions. It also states the significance of the study, assumptions of the study and it highlights the limitations and delimitations as well as defining significant terms.

Chapter two has the literature review related to the problem. The chapter concentrates on literature related to factors affecting the implementation of FPE in Africa, Kenya and marginalized areas.

Chapter three dealt with research methodology of data collection and research design of the study. The design of the study consisted of data collection procedures, piloting, sampling and procedures that have been used in data collection.

Chapter four of the study was on analysis of data or information that had been obtained. This chapter contains tables of frequency, percentages, mean and other statistical data.

Chapter five consists of a summary, research findings, conclusions and recommendations as well as suggestions for further additional research.

The summary has dealt with the findings of the research while the conclusions have given information obtained from the study.

The recommendations given have suggestions on improvement that can be made in FPE.

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#### **CHAPTER TWO**

#### LITERATURE REVIEW

#### Introduction

This chapter reviews literature that details issues being focused on by the study. The chapter is divided into subsections with the first subsection dealing with the FPE strategy adopted by different African nations. The second sub-section deals with the history of FPE in Kenya while the third sub-section deals with the challenges facing FPE in Rumuruti zone.

# A Preview of Free Primary Education in Africa

After independence African countries sort to invest in education as it was the most appropriate tool for achieving desired socio-economic and political development. According to Sifuna (1990) education in Africa had two main objectives. These were furnishing future manpower with requisite skills and knowledge, inculcating values that enrich lives and maintaining cohesive productivity.

To achieve the objectives highlighted above governments opted for different education models one of them being the social demand approach commonly known as FPE. As illustrated by Chiuri and Kiumi (2005) FPE was the favourite education model for most African governments as it ensured everybody got education. The approach was also liked because it

ensured economically disadvantaged pupils got education and did not discriminate anyone.

However, FPE brought about a high demand for education whenever implemented. This caused strain on available resources despite the fact that the programme had significant social-economic advantages. Govender and Farlam (2004) state the quality of teaching in many countries embracing FPE began to deteriorate as unqualified and untrained teachers were hired. These teachers lacked skills necessary for good quality instruction hence resulting in low quality education. The aforesaid is illustrated by Govender and Farlam (2004) in a World Bank study indicating Africa had 2.5 million teachers in 2004 while an additional 1.36 million teachers were needed to realize FPE by 2015. Highlighting the case of Uganda one of Africa's most successful FPE programs, Govender and Farlam (2004) noted Uganda had 17% untrained teachers and 57% who needed upgrading in the year 2004. This was because excessive demand for education could only be handled by hiring a large number of teachers without professional training.

High education demand across the continent resulted in facilities being rendered inadequate. Pupils subsequently began learning in the open, under trees or in makeshift structures. Learning facilities such as books,

chalkboards and reference materials were overstretched thus resulting in low quality education.

Education challenges brought about by the implementation of FPE in Africa are further observed in the Ghanaian FPE program. This is a pioneer FPE program in Africa that happens to be one of the most successful in the continent. However, the Ghanaian FPE program has been regarded with skepticism by a UNESCO (1987-1998) study that investigated the success of the program. The study found out that parents did not consider education to be free as propagated by the Ministry of Education in Ghana.

After reviewing the quality of education in Ghana, UNESCO realized that education in Ghana's rural areas was lower in quality than that of the city. This was attributed to lack of textbooks, poor teaching skills, excessive loss of instructional time, an overloaded syllabus, an inappropriate approach to non-traditional subjects, poor supervision and lack of motivation for teachers in public schools.

The study also recommended the enactment of laws to prosecute parents who used their children as child labourers instead of taking them to school. It also advocated for the banishment of outmoded customs that inhibited girl child education.

In addition, the study concluded that Ghanaian children in rural areas did not have enough contact hours with teachers for effective learning.

It further added that 95% of pupils were not mastering basic skills in mathematics and English. The study also realized there was irregular distribution of textbooks.

# Free Primary Education in Kenya

In Kenya FPE has been geared towards economic growth and acceleration of the development process. For this reason KANU used it as a pre-election pledge in 1963. Introduction of FPE by the government in 1973 and the subsequent rejuvenation of the same in 1979 and 2003 aimed at achieving economic growth and development. However, FPE in Kenya resulted in over-enrollment, shortage of classrooms, lack of teachers and inadequate facilities whenever implemented. This is because FPE created excessive education demand hence eroding expected benefits.

Realising that the problems illustrated above would not be solved in the short term, MOE began developing and implementing policies that would eventually result in FPE by 2015. Subsequently, the government provided bursaries to needy and bright students. By lowering girls mean grade for university admission, the government introduced affirmative action to increase the university enrollment of girls from marginal areas. In addition, involvement of communities in management of schools and reformation of the curriculum to reflect learners' needs took place.

Irrespective of the fact that FPE programs illustrated above were meant to lay a good education foundation, they were not positively regarded by parents and stakeholders. Parents and stakeholders viewed these FPE programs negatively as they financed and provided classrooms, laboratories, workshops and equipment. They also bought textbooks, uniforms and contributed to maintenance. This explained why critics questioned the FPE programme. Though the situation was disappointing for parents, stakeholders and communities; it remained that way for several years.

After the 2002 elections in Kenya there was a change of political administration that caused a paradigm shift in educational goals and aspirations. The government appeared to be more committed to the

Millennium Development Goals that aimed at achieving FPE by 2015 thus transforming the country from an impoverished developing country to a bustling and expanding economy by 2020.

Like previous FPE initiatives in Kenya, the 2003 initiative faced numerous problems that were most evident in marginalised areas like slums, arid and semi-arid areas. Some of these problems included child-labour, teacher - student ratios, drought, insecurity, teachers' commitment, curriculum relevance and attitude towards education.

# The Effects of Child Labour on Free Primary Education

The ILO (2003) study, <u>Investing in Every Child-An Economic Study of the Costs and Benefits of Eliminating Child Labour</u>; stated it was not easy to sustain in Kenyan schools nine million pupils aged between five and fourteen unless enormous economic benefits were reaped in the fight against child labour.

According to Kigotho (2004) about 2.6 million families in Kenya had school age children living in poverty thus creating a reservoir for child labour.

Wachira further stated that the depth of poverty in the country created barriers and not all children had been sent to school.

Consequently, the government ought to address the benefits of attending school vis a vis the benefits of child labour. in Wachira's article, Frank Hagemann the Principal Researcher of the ILO study (Investing in Every Child: An Economic Study of the Costs and Benefits of Eliminating Child Labour) pointed out that the fight against child labour would affect poor households because its elimination would deprive off families an income of Kshs 152 billion in twenty years.

Though attending school increased an additional eleven percent in future earnings according to the ILO research, child labour in Rift Valley sisal estates and ranches hampered government efforts towards FPE.

Child-labour remained one of the most prominent challenges facing FPE in Kenya. After introduction of FPE child-labour began retarding gains made by the program as pupils opted to work hence dropping out of school. A case in hand was that of FPE in Kajiado which translated into intensified child labour as parents resorted to overworking their children when not in school according to The East Africa Standard of April 5<sup>th</sup>, 2003 (p.17).

In Central Rift Valley FPE paused challenges similar to those experienced in kajiado. Mutai (2003) stated child labour in plantation estates in the Rift

Valley hampered government efforts in sustaining FPE. The Rift valley Provincial Commissioner at the time of the article's publication urged education officials to pay attention to pastoral areas in ensuring enrollment was sustained.

Rumuruti Zone is a marginalized and pastoral area within the Rift Valley. This study therefore hypothesized that Rumuruti zone faced the same challenges as other marginalized areas within the province. The study further hypothesised that there was inconsistent school attendance and pupils at times dropped out of school opting to work. If this was the case then gains made by FPE were being reversed with passage of time.

Rift-Valley's child-labour challenge highlighted earlier indicated FPE was handicapped by child labour in areas faced by poverty. Ross (1999, p.2) states;

"It is crucial that teachers be prepared to provide appropriate institutional strategies to reach and teach the growing population of students victimised by poverty because many citizens who are successful come from impoverished circumstances but someone helped them to realise their work. Educators must constantly assess their biases and prejudices to move beyond condemning children."

Ross implied an ideal education program must seek to sustain pupils in school despite poverty endearing them to drop out. It is therefore important to find out the extent to which child-labour affected FPE in Rumuruti zone.

This study sought to find out the extent to which child labour hampered FPE in Rumuruti zone as it was representative of other regions with similar terrain, social-economic and geographical conditions.

The Effects of teacher-student ratio on Free Primary Education

Further problems facing the FPE program were highlighted in a survey

carried out by UNESCO (2005) in one sixty eight schools in all the

provinces of Kenya. This survey revealed that fifty eight pupils were taught

by one teacher while the recommended ratio was fourty per teacher.

The revelation above was highlighted by The Daily Standard of April 28<sup>th</sup> 2005 (p.18) thus illustrating the need for more teachers in the country.

The article also stated that FPE stretched physical facilities such as classrooms, desks and toilets. As if that was not enough, the newspaper report stated girls, the disabled and pupils in lower classes were the worst affected by the problem of inadequate toilets. The survey further noted

that there were times when pupils helped themselves in bushes as sanitation facilities were inadequate.

The introduction of FPE in Kenya caused an acute shortage of teachers as the number of students enrolled in schools suddenly shot up.

In some cases, teachers found themselves handling as many as one hundred students. This study hypothesized that Rumuruti zone had similar challenges. Furthermore, the study hypothesized that Rumuruti zone experienced a disproportionate teacher - student ratio because of the sudden influx of pupils. If this is the case, the disproportionate teacher-student ratio may have been made worse by the TSC policy of posting teachers. TSC posts teachers to their home districts as a matter of priority. This policy has a negative effect on disadvantaged areas such as Rumuruti zone as few of their own are qualified as teachers.

If the policy is sustained then the teacher-student ratios in Rumuruti zone and other marginal areas will continue being disproportional. Therefore, there may be need for the TSC to review this policy so that the local community may maximize benefits accrued from FPE. If this is not done teachers may remain skewed in favour of urban areas and regions of high agricultural productivity. The teacher-student ratio in Rumuruti zone would

therefore be a good measurement of the effectiveness of FPE in marginalized areas.

# Drought and its Effects on Free Primary Education

The multiple challenges faced by FPE were also highlighted by Adler (2003) who stated regions frequently struck by drought experienced low pupil registration after the introduction of FPE. Animals in arid areas are highly affected by drought despite the high community dependence on animal products for food. This fact is illustrated by Brochdue (1999, p.151) when he states;

"African pastoralism represents a particular food getting strategy adapted to semi-arid regions, while domestic animals enable humans to convert scarce and patchy grazing resources into a steady supply of food calories and nutrients for human population in the form of milk blood and trade of animals and their products for grain."

Livestock is the lifeline of most communities in marginalized areas.

Consequently, such communities tend to forego other obligations to sustain livestock in times of drought. At such times pupils may miss school. Some may skip school for months while others relocate to new ones. However, others may drop out of school for good.

Taking the harsh weather conditions of marginal areas into consideration, the role of the school feeding program and its effect on enrollment levels cannot be ignored. In the East African Standard of May 10<sup>th</sup> 2003 (p.18), a Senior Deputy Director of Education stated that students in ASAL areas are motivated to go to school once they learn food is being provided. The Director further highlighted that in areas of extensive drought like Wajir and Garissa enrollment was as low as 19.5% and 19.6% respectively. These statistics indicated that drought was a factor that seriously distorted provision of FPE in marginal areas of Kenya.

As stated by the local agricultural and livestock officers, Rumuruti zone is characterized by low rainfall and frequent drought.

Consequently, communities in the area habitually search for pasture while farmers frequently end up with crop failure. At times of drought pupils skip school in search of food and pasture for livestock. Statistics on school attendance obtained at the Area Education Office (A.E.O) indicated that school attendance was good during periods when WFP was giving out food but much lower in periods when no food was offered. It was therefore important to find out the effects of drought on FPE in Rumuruti zone.

Drought also causes low water levels in Ewaso Nyiro river which is the lifeline of the community in Rumuruti zone. The river's water level can be

dangerously low in dry seasons. Government licensing and regulation of water along the river is high as it is critically important for communities in Samburu and Isiolo districts that are located downstream. Drought in the area implies imminent death. It was therefore important to find out the effect of drought on FPE in Rumuruti zone as it was representative of other regions with similar weather and topography.

# Insecurity and its Effects on Free Primary Education

Despite government attempt to mitigate security problems through the Provincial Administration and local Police, insecurity paused a major setback to FPE in Rumuruti zone. Currently insecurity is caused by recurrent tribal animosity, disputes over grazing land and herders who invade private ranches in search of pasture. However, these disputes result in clashes with ranch owners be they private or communal. Mwathi and Masibo (2006) highlight the deaths of thirteen police reservists in Rumuruti as a result of private farm invasion. This incident caused the Speaker of the National Assembly to challenge the government as he felt it was not protecting pastoral communities in the area. Despite attracting Presidential intervention, this incident heightened insecurity as it was one among several previous ones that have habitually caused communities to flee thus resulting in school closures.

Rumuruti zone also experiences insecurity brought about by cattle rustlers who consistently pause a security problem. For instance Mutua (2006) highlighted the case of cattle rustlers who stole one hundred and fifty head of cattle from a farm. Once again, this incident was just one among several others.

Incidents such as those highlighted above cause pupils to miss school. They also get out of hand thus resulting in sectional or tribal wars that result in destruction of property such as homes and schools. At other times feuds cause pupils to miss school over long periods as they refuse to attend classes with members from communities perceived as enemies. This is common as guns and other dangerous weapons are prevalent. All the same it was important to find out the extent to which insecurity influenced FPE in Rumuruti Zone.

# The Effect of Teacher Commitment on FPE

Despite being inspected periodically, schools in marginalized areas face so many challenges that the problems faced overweigh the reviews and recommendations implemented by the inspectorate. For this reason, the study hypothesised that teachers commitment to work may be wanting. Equally, teachers may not be motivated sufficiently as should be the case for people working in marginalised areas.

Teachers walk long distances in the scorching sun. They live while totally disconnected from the rest of society by flooding rivers in rainy seasons. They also live in fear of their lives at times of insecurity. Medical facilities are often miles away and banking facilities are not available thus explaining why payment of teachers' salaries is done through the local post office in Rumuruti town. Despite facing such challenges, teachers are offered little by the government other than a hardship allowance that does not adequately mitigate the hardships they face. Thus problems faced by teachers in Rumuruti zone and other disadvantaged regions may make their commitment to work wanting. It was therefore important to find out how the commitment of teachers in Rumuruti zone affects FPE.

Relevance of the Curriculum to Pupils in the FPE Programme

According to a study carried out by Danish Fund for International

Development (DFID) – Contextualising, Teaching and Learning in Rural

Primary Schools Using Agriculture an Agricultural Experience; social

cultural and economic practices such as agriculture and cattle rearing

could be used to develop pupils numeracy, literacy and life skills.

An ideal curriculum is one that prepares pupils for life. The village environment should therefore be used to create a source of interest so as to provide a basis for the understanding of abstract concepts. It is only

then that planners, pupils and parents can be assured that highly valued aspects of culture are not under threat. This means investigating if social-cultural and economic activities of Rumuruti residents are employed in the school curriculum. Consequently, this investigation enabled the researcher to evaluate the relevance of FPE in Rumuruti zone hence investigating the programmes success in marginalized areas.

## Attitude towards Formal, Free Primary Education

In an article published by The East African Standard of March 29<sup>th</sup> 2003 (p.18); Kacheliba M.P., Lawrence Poghisio stated that nomadic communities had no cultural value for education. Poghisio further stated that since the introduction of FPE, few people among nomadic communities had taken advantage of the programme. In the same publication Samburu East M.P., Simeon Lesirma stated that the government needed to popularize alternative methods of teaching in ASAL (Arid and Semi-Arid Lands) regions so as to realize increased enrollment.

In the publication, Members of Parliament from ASAL areas felt that the plight of children from their respective regions was not taken into consideration when FPE was implemented. A different article by ASAL parliamenterians in the East African Standard of March 29<sup>th</sup> 2003 (p.18) stated shortage of teachers was a major handicap facing the program in

ASAL areas. The FPE task force formed by the government with the onus of streamlining the FPE programme advocated that the government needed to establish boarding schools in ASAL areas after taking the social-cultural and economic set up of ASAL communities into consideration. This recommendation was found in the East African Standard of March 10<sup>th</sup> 2003 (p. 2) but it has not been implemented to date. It was therefore important to find out the attitude of pupils towards education in Rumuruti zone as it is an ASAL area. Findings made were representative of other regions experiencing similar social - economic and cultural challenges.

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# Summary of Literature Review

According to Digolo (2002; P.10);

"Education has a role to play in:

- i) Easing the tension between local and global issues...It ought to induct people into world citizenship without loosing their nationality, roots and participation in nations and local communities.
- ii) Easing tension between competition and co-operation in politics...Education should help in re-conciling the forces of competition."

It is the view of this research that a successful FPE programme is one that prepares the individual learner to face the world without loosing identity and making it a better place to live in. It is for this reason that MOE spent thirty three billion shillings (Daily Nation, 27<sup>th</sup> April, 2007.p 5) on FPE between 2003 and 2007.

In addition Digolo (2002; p.16) states;

"Policies and actions in education and training have to correspond with local conditions and aspirations."

This study concurs with the statement above and proclaims that the successful implementation of FPE in Kenya calls for optimum utilization of locally available resources.

FPE stake holders ought to be guided by yet another philosophy from Digolo (2002, p.18) which states that;

"Education is now aimed at transmitting knowledge and values, establishing skills and perfecting people in all different situations throughout their lives." It is the view of this study that Digolo's philosophy is the ultimate objective of a successful FPE programme. Thus the aim of this study was to find out if FPE in Rumuruti zone had succeeded in achieving this objective.

### Theoretical Framework

The theoretical framework for this study linked closely with the Social Demand Approach for Education. Chiuri and Kiumi (2005) note the main objective of this approach is to provide education to as many people as possible.

Figure 1 (p. 34) diagrammatically illustrates how factors and challenges discussed in the literature review may affect and influence the aims and objectives of FPE in marginalized areas.

At the top of the diagram are the learners. Resources including finances, textbooks, learning equipment, stationery and teachers are availed to all learners in the FPE programme.

The learners to the left of the diagram experience a well selected and favourable learning environment. Child labour is minimal, teacher - student ratios are favourable, drought is well managed, security is good, teachers are committed and attitude towards education is positive. Effort in school is geared towards quality education. In addition, the content imparted to pupils is adequate, well rounded and balanced as they are exposed to appropriate learning aids such as professional visitations, tours, projects, radio, newspapers, books, magazines, cellular phones, films, makeshift

experiments, family and communal activities. This implies that whatever is learnt at school is complemented by what is learnt out of school.

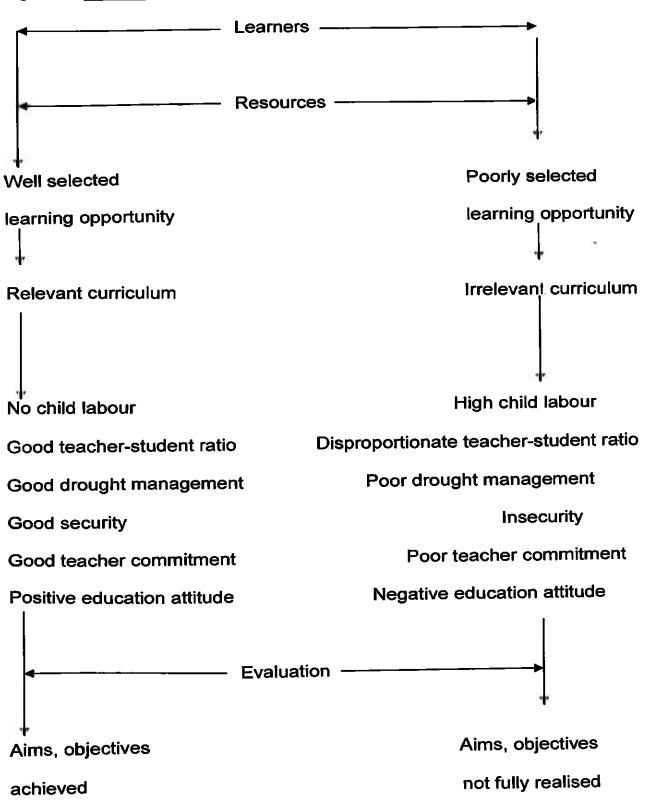
Upon evaluation, learners who have experienced this wholisitic education approach tend to have higher marks at KCPE irrespective of their locality. This indicates that the desired aims and objectives of the FPE programme have been largely achieved as opposed to learners on the right side of the diagram who experience unfavourable learning experiences. Learners represented by the left side of the diagram are mainly found in primary schools with good KCPE results.

Learners to the right of the diagram experience an irrelevant curriculum and poorly selected learning opportunities. They are disadvantaged by high child labour, a disproportionate teacher-student ratio, poor drought management, insecurity, low commitment of teachers and a negative attitude towards education.

Teachers hardly make use of accessible geographical topography and biological resources for teaching purposes. They rarely create diverse learning opportunities. In addition learners are hardly exposed to an environment beyond theirs as tours and other learning opportunities such as radio, professional visitations, makeshift experiments, newspapers,

television and socio-cultural activities are not used for learning purposes. Neither do such teachers regard core-curricular activities at school as serious learning opportunities. Consequently, the knowledge imparted to their pupils is incomplete and mis-balanced. The curriculum therefore becomes difficult to organise as few learning opportunites are created. Upon evaluation, low marks attained at KCPE by students from these schools indicate that the aims and objectives of FPE are not realised. Learners represented by the right side of the diagram are mainly found in schools that have performed poorly at KCPE.

Figure 1: Factors affecting the quality of pupils in FPE.



#### CHAPTER THREE

#### RESEARCH METHODOLOGY

### Research Design

This study used descriptive survey. The researcher used a questionnaire to collect information on the respondents' characteristics and their perception on important issues pertaining to the relationships between FPE and child labour, teacher-student ratio, drought, insecurity, commitment of teachers, curriculum relevance and attitude towards education.

This research checked if intended FPE results had been realised hence becoming evaluative. In addition, it sought to establish if there is a relationship between FPE in Rumuruti Zone and the factors that were suspected to be influencing it.

The research design first identified the factors that affected the implementation of FPE in Kenya while taking Rumuruti Zone as a case study. Though there was no empirical evidence indicating the factors that

affected FPE in Kenya, the researcher relied on available information from various researchers, newspapers and books.

Suggested factors affecting FPE included child labour, teacher - student ratios, drought, insecurity, commitment of teachers, curriculum relevance, competing cultural practices and attitude towards education.

The questions paused in the questionnaire checked if the factors suggested above had any significant relationship with the FPE programme in Rumuruti zone. Depending on the feedback from teachers and members of respective school executive committees, the researcher was able to identify factors that influenced the FPE programme in Rumuruti zone. From the same feedback the researcher was able to conclude if the factors influencing FPE in Rumuruti zone had a significant relationship with the programme.

# **Target Population**

Lynn (1993) defines a target population as the total number of elements in a sample. In this research, the target population comprises of the total number of primary school teachers and executive committee members in Rumuruti zone.

## Samples and Sampling Procedures

Cohen and Mannion (1992, p.104) state that;

"As well as the requirement of a minimum number of cases...the researcher must obtain the minimum sample size that will accurately represent the population under survey. Where simple random sampling is used, the sample size needed to reflect the population value of a particular variable depends both upon the size of the population and the amount of heterogeneity of the variable in the population. Generally for populations of equal heterogenity, the larger the population, the larger the sample that must be drawn."

In addition Oppenheim (2001, p.44) states;

"Sample size is determined by the theoretical requirements such as sampling error, cluster size, required accuracy of population estimates, the precision of the sampling operation, the number of sub-group comparisons we aim to make, the nature of the dependent variable and ultimately by time and cost constraints."

However, this study selected the number of teachers who took part in it via the use of a table for determining sample in a given population. This table which is illustrated in appendix 6 is found in Krejcie and Morgan (1970).

According to the data in the DEO's office the total number of teachers in Rumuruti zone was 146. Based on the table for determining sample size in Krejcie and Morgan (1970), the ideal sample in a population of 146 teachers was 108 teachers. This represented 74% of the total population or ¾ of the total population. This sampling ratio was utilized in selecting the number of schools (N=21) whose subjects participated in the study. In this regard, the required number of schools (3/4) 21 was 15. In order to get the 15 schools for the actual study, the simple random sampling technique was applied. Thus names of schools were written on small pieces of paper, juggled and then picked at random. Picking continued untill the fifteenth school was selected. This was followed by individual visitation to each of the selected schools whose names appeared on the picked papers. At a given school, the researcher would write down all the names of teachers on pieces of paper. The papers would then be folded and juggled.

The researcher would then pick the folded papers randomly until the required percentage of 74% teachers in a school was achieved.

Selected teachers whose names appeared on the picked pieces of paper would then fill the teachers' questionnaire.

On the other hand, three executive committee members in each selected school were included in the sample. It is also important to note that the two schools involved in the pilot study were not involved in the actual study due to the respondents prior knowledge of the information being sought by the study.

#### Research Instruments

The research instrument used by the researcher was the questionnaire. Questionnaires involved getting what was in the minds of participants in terms of what they thought and felt about FPE. Questions were paused in the same way to every participant hence allowing the researcher to carry out a comparison of responses and making scoring of data efficient. Questions were prepared in advance. Answering them took a very short time.

As stated by Oppenheim (2001), open questions enable freedom and spontaneity of answers and the opportunity to probe while the closed questions require little time, avoid extended writing, have low costs and are easy to process. Questionnaires also enable the making of group comparisons and require less interviewer training. Consequently, the questionnaires had both open and closed questions.

There were two sets of questionnaires to cover the two categories of respondents, namely teachers and executive committee members.

The teachers questionnaire was divided into three sections: A, B and C.

Section A elicited data pertaining to the name of the school and the gender of the respondent. Section B had seven closed items on factors likely to affect learning outcomes in the FPE programme in Rumuruti Zone. Each item had a five point rating scale denoted by "strongly agree", "agree", "not sure", "disagree" and "strongly disagree".

These choices were coded "SA", "A", "NS", "D" and "SD". For analysis and interpretation the choices above were assigned "5", "4", "3", "2" and "1" scores respectively.

Section C had a mixture of closed and open ended questions.

During analysis the open ended items were closed by classifying the responses into identifiable response categories. This involved rating, categorizing and classifying similar responses into a common code.

Each common code was then given a score. Closed items in this section were awarded scores depending on their structure. Those with a simple "yes" or "no" answer had a score of "1" for the "yes" and "0" for the "no" response.

Questions with choices in the form of "a", "b", "c" or "d" had a score of "5", "4", "3", "2" and "1" respectively. Those with a measuring scale of "1, 2, 3, 4, 5, 6, 7, 8, 9, 10" used the respectively chosen number as the score.

The second questionnaire was that of the executive committee members. It had three sections: section A, B and C. Section A elicited data pertainning the name of the school while section B had both open and closed questions. The closed questions had five choices, "strongly agree" denoted by "a", "agree" denoted by "b", "not sure" denoted by "c", disagree denoted by "d" and "strongly disagree" denoted by "e". Each item was awarded a score with "a" scoring "5", "b" scoring "4", "c" scoring "3", "d" scoring "2" and "e" scoring "1". Open ended questions were closed by rating, categorizing and grouping common responses into a common code.

## **Instrument Reliability**

Anderson (1987, p.129) states that;

"Reliability is the consistent performance of a measure."

He further states that;

"Given the same conditions a reliable measure will return the same observational values."

Anderson (1987, p.129) also states that;

"Reliability is the degree of correspondence between repeated measures and strong relationships between measures indicate high reliability for those measures."

Reliability is a necessary condition for validity as an instrument can be reliable and not necessarily valid.

Reliability refers to the consistency of two measures of the same kind. In other words reliability checks to what extent two measures produce results that have no measurement error.

According to Anderson (1987, p.119);

"Reliability asks; does the system of measurement provide the same response when the same thing is measured more than once?"

To guarantee reliability, the researcher employed the alternate forms technique that used equivalent instruments. Questions were phrased

differently though they measured the same concept. The researcher also employed the internal consistency technique which ensured that one item or question in an instrument was related to other items in the instruments.

### **Instrument Validity**

Cohen and Mannion (1992, p.200) state that;

"Validity is concerned with the question; do the experimental instrumental treatments in fact make a difference in the specific experiments under scrutiny?"

Validity focuses on the soundness, the accuracy and technical truthfulness of what has been investigated. It checks if the research is sound enough, if it is a true record and whether it makes sense.

Factors that influenced internal validity in this study were:

- i. The kind of instrument the researcher used. Through piloting the researcher ascertained that the questionnaire was valid and reliable.
   Thus, questions presented to subjects were easily understood as they had been reviewed by the researcher after piloting.
- ii. The characteristics of participants. The researcher considered the respondent's personal outlook, gender and attitudes among other factors.

This was the reason why teachers and executive committee members were used as subjects.

iii. Loss of subjects by way of immigration caused by insecurity.

During the period when the study was carried out, several members of the Samburu community had been driven out of their places of dwelling in a fight between them and the Pokot. This meant that some prospective subjects for the study were not available.

- iv. The location of the research which was appropriate as it was an ideal representation of marginalized regions.
- v. Maturation of experiences. Teachers and members of the community had consistently experienced and/or observed challenges facing FPE. Subsequently, they were able to clearly express their opinion in the questionnaires without bias.
- vi. The historical nature of the information being sought.

  Information sought by the study was the result of cumulative experiences and observations. Therefore, any opinion offered by respondents was the result of individual experiences over a period of time. This being the case it is important to note that data collected was valid as it had

trends that were easily highlighted by subjects.

To ensure validity of the instruments, the research utilized information emanating from the pilot study to identify items in the questionnaires that were either unclear or open to misinterpretation. Such items were rephrased for the instrument to elicit desired information during the main study.

## **Data Collection Procedures**

According to Mugenda and Mugenda (1999, p. 42) ten percent of the total population is adequate for a descriptive study. In this study Rumuruti Zone had 21 public primary schools which constituted the total population (N). The researcher wrote the names of all schools in Rumuruti Zone in pieces of paper. The papers were folded before juggling. After juggling the researcher randomly picked two schools that were used for piloting having applied the formular (10/100)N derived from Mugenda and Mugenda (1999, p. 42). Using the formular above the worked out calculation indicated the researcher would carry out piloting in two schools. Data from the pilot study assisted the researcher in making necessary revisions to the instrument. Thereafter, the researcher sought permission to carry out the actual research from MOE.

The researcher in turn administered the questionnaire personally in the selected schools following the procedure illustrated in the samples and sampling procedures section of the study (pg. 37). Administrative procedures involved selection of schools for the actual study via simple random sampling. The same was done for the teachers who were subjects of the study. However, this was not the case for school committee members as three committee members from each school selected randomly were given a chance to fill the questionnaire. The researcher was accompanied by the AEO having made prior arrangements.

This enabled the researcher to administer the questionnaire upon visiting a school. Teachers and school committee members would first be briefed on the purpose of the questionnaire before being requested to fill it.

# Piloting of Research Instruments

Oppenheim (2001, p.48) states that;

"In principle, almost anything about a social survey can and should be piloted, for almost anything can go wrong. It is dangerous to assume that we know in advance how respondents will react, and it is a mistake to ask an expert."

The government has begun investing in marginalised areas such as Rumuruti zone by drilling boreholes and dams, opening up feeder roads, providing more security officers and also creating a famine relief kitty among other programmes.

Dynamic programs such as those illustrated above are bound to create quick social-economic and cultural changes within society.

Consequently, a study such as this easily gets out of context unless it is well piloted. As stated earlier in the study piloting ensures that a study is not founded on wrong assumptions and presuppositions.

Piloting by this researcher was based on the methodology highlighted in the data collection procedures section of this study (p.45). This implies piloting was administered to teachers from two schools which represented 10% of the total number of public primary schools in Rumuruti zone.

The researcher's analysis involved synthesizing of information from various sources into a coherent description of what was going on.

Emerging results were directed by the research questions.

Collected data was first processed for ease of analysis. A coding frame was designed for ease of classifying data which had been provided by the respondents. The data was then analysed through

descriptive statistics. The aforesaid analysis was accomplished through the use of a computer which utilized the statistical package for the social science programme (SPSS). In a nutshell, the analysed data formed the basis of the discourse on the factors affecting the implementation of FPE in Rumuruti zone.

## **CHAPTER FOUR**

## Data Analysis and Interpretation

#### Introduction

This chapter dealt with the analysis and presentation of data. The chapter was divided into several subsections. The first section dealt with the questionnaire return rate from the respondents and the demographic information of the respondents. The second sub-section dealt with the analysis, presentation and interpretation of data relating to views of teachers on the factors affecting FPE in the area of study. The third subsection dealt with the analysis and presentation of data pertaining to views of executive committee members (parents) on the factors affecting FPE.

## Questionnaire Return Rate

Of the 89 questionnaires presented by hand to teachers, 89 were received back by the researcher. This represented a 100% return rate. Out of 45 questionnaires presented and administered to School executive committee members, 43 were received back by the researcher representing a 95.5% response rate. From the questionnaires the researcher extracted data pertaining the name of the school and gender. In addition to that the researcher was able to obtain information pertaining

child labour and school attendance, teacher-pupil ratio, drought,insecurity, commitment of teachers, curriculum relevance and attitude towards education.

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## Information of the Respondents

The sample population consisted of teachers and parents (including school heads) who were automatic executive committee members from Mathanji Primary, Narok Primary, Marura Narok Primary, Ol' Maisor Primary, Island Primary, Murichu Primary, Mutamaiyu Primary Magomano Primary, Mategithi Primary, Ol' Arinyiro Primary, Muthiga Primary, Marura Primary, Kiriko Primary, Nguo Primary and North Tetu Primary School. Among teachers, 76% of the respondents were male while 24% were female.

Views of Teachers on Factors Affecting FPE in Rumuruti Zone

The study focused on the following variables of factors affecting
implementation of FPE: child labour, teacher – pupil ratios, drought,
insecurity, commitment of teachers, curriculum relevance and attitude
towards education. Each of these factors were broken down for purposes
of investigation. Under each main factor the researcher identified five
items which elicited responses from the respondents. The responses were
scored on a five point richert scale with a maximum of five and a minimum

score of one point. The highest scoring response was strongly agree with the lowest being strongly disagree.

The responses were then analysed using descriptive statistics which included frequencies, percentages and mean. The results were presented in tables and bar graphs. In the following section the main statistic was the mean score of the response elicited by the items under each of the factors highlighted earlier. The bar graphs present the same information in percentages. This was done for clarity.

Table 1 shows how various aspects of child labour related with FPE

Table 1: The Relationship between Child Labour and FPE

Table 1: The Relationship between Child Labour and FPL							
	N		Maximum	Sum	Mean	Std.	Variance
	- 1				İ	Deviation_	
Attending school better	87	1	5	407	4.68	.770	.593
than working Work gives pupils satisfaction	87	1	5	216	2.48	1.413	1.997
Working and schooling have same benefits	87	1	5	189		1.305	1.702
Schooling is better than working when needs are met	88	1	5	402	4.57	.814	.662
Scooling is disatisfying without basic needs	87	1	5	347	3.99	1.196	1.430
Valid N (listwise)	82						

As Table 1 illustrates, majority of the respondents with a mean score of 4.68 indicated they strongly agreed that attending school was better than working. Therefore, it can be deduced that majority of the pupils would rather attend school than miss learning for a paid job. From the table it is also learnt that respondents were not sure (2.48) if work gave pupils satisfaction. It also emerged that respondents were not sure (2.17) if working for pay and schooling had similar benefits. However, it emerged that majority (4.57) agreed attending school was better than working.

A further inspection of the data revealed that a significant number (3.99) of the respondents agreed schooling without meeting basic needs was dissatisfying. From the data it is clear that the respondents appreciated the benefits of education.

From the data above the researcher concluded that the benefits of education were highly regarded. The data further suggested that students preferred attending school so long as their basic needs were met.

However, the fact that education benefits are long term may be the reason why respondents stated they were not sure if working for pay and attending school had the same benefits.

Bar graph 1 further illustrates the respondents responses regarding child labour. Only 1% of the respondents or about 1 teacher strongly agreed that child labour was a factor influencing school attendance. It is evident from the bar graph that 7% of the respondents or about 6 teachers' disagreed child labour affects school attendance. 43% of the respondents or about 39 teachers were not sure if child labour had any effect on school attendance while 39% of the respondents or approximately 35 teachers' felt child labour affected school attendance. From the bar graph it emerged that there were only 9% or about 8 respondents who strongly agreed that child labour affected school attendance. This group may be a representation of children caught up in extreme poverty thus having to occasionally miss school so as to supplement family income. However, the data indicates that at least 48% of the respondents felt that child labour affects FPE. This being the case, child labour noticeably emerges as one of the factors affecting FPE in Rumuruti zone.

Bar Graph 1: The Relationship Between Child Labour and FPE



Table 2 shows respondents agreed (3.84) large classes had poor grades. In agreement with this feeling, respondents also agreed (3.81) small classes had good grades. On the contrary the table indicates respondents agreed (4.44) large classes were difficult to teach. From this observation the researcher concluded that large classes affected quality of learning. This implies that quality learning was associated with small or ideal numbers of students.

The observation above was inconsistent with the respondents' disagreement (2.27) that class size did not influence performance.

The table also indicates teachers were not sure (2.73) if large classes influenced performance. This observation may be attributed to two factors; that academic performance was not necessarily related to class size as observed by teachers or the fact that teachers avoided giving a true feeling as regards teacher – student ratios, this currently being a sensitive issue in the education sector.

Table 2 illustrates the relationship between teacher – pupil ratios and FPE.

Table 2: The Relationship between Teacher – Pupil Ratios and

Learning Std. Variance Mean Sum Minimum Maximum N Deviation 1.407 1,186 342 3.84 89 Large classes have poor grades 1.315 3.81 1.147 339 5 89 Small classes have good grades .749 .865 4.44 395 5 89 Large classes are hard to teach 1.419 1.191 200 2.27 5 88 Class size does not influence performance 1.257 1.580 2.73 240 5 88 Large classes do not influence performance 87 Valid N (listwise)

Bar graph 2 further illustrates that about 6 teachers or 7% of the sampled population disagreed teacher - student ratios had effect on FPE.

It emerged that about 42 teachers or 47% of the respondents were not sure if teacher-pupil ratios had any effect on learning. This observation linked closely with the finding made in table 2 that class size did not influence performance. From bar graph 2, 32% of the respondents or about 28 teachers agreed teacher-student ratios were affecting learning. On the other hand a small proportion of about 13 teachers or 15% of the respondents strongly felt that teacher – student ratios influenced learning. In total, 47% of the respondents generally agreed that teacher – pupil ratios affected FPE. This observation was off set by the finding that 47% of the respondents stated there was no relationship between FPE and teacher – pupil ratio.

Bar Graph 2: The Relationship between Teacher – Student Ratio and FPE

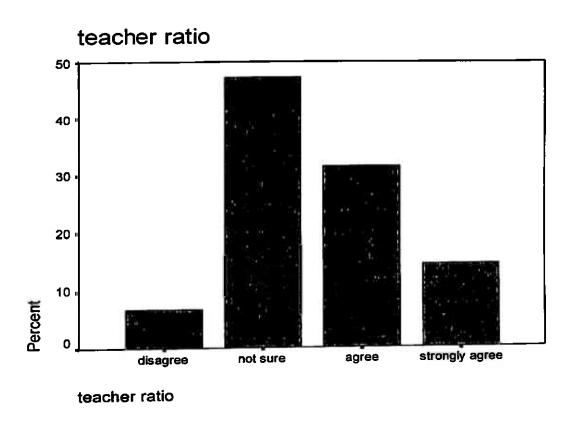


Table 3 illustrates that teachers strongly agreed (4.53) drought affects school attendance. Teachers further agreed (4.35) that drought affected academic performance. This was consistent with the agreement (4.49) that food availability influences school attendance. There was a strong disagreement (1.76) that drought does not influence academic performance. The findings suggested majority of respondents concurred with the fact that drought was a major obstacle to FPE. This further implied food was a critical factor affecting FPE hence explaining the

governments high investment in the school feeding programme in liason with development partners like WFP.

Table 3: The Relationship between Drought and FPE.

<u>Table 3: The</u>					L allu I F	<u> </u>	Verianos
	N	Minimum	Maximum	Sum	Mean	Std. Deviati <u>o</u> n	Variance
drought affects attendance	88	2	5	399	4.53	.586	.344
Drought affects performance	89	1	5	387	4.35	.813	.661
Food availability influences performance	88	2	5	395	4.49	.625	.391
Food availability influences attendance	84	1	5	359		.974	.948
Drought does not influence performance	85	1	5	150	1.76	1.182	1.396
Valid N (listwise)	81						

Bar-Graph 3 indicates about 1 teacher or 1% of the respondents strongly agreed drought affected learning. An equally small proportion of about 4 teachers or 4.5% of the respondents disagreed that drought affected learning. It emerged that about 19 teachers or 21% of the respondents were not sure if drought affected learning. A significant proportion of about 57 teachers or 64% of the respondents agreed that drought affected learning. It is also evident from the table that about 8 teachers or 9% of the respondents strongly agreed that drought affected learning. Based on data from the graph drought was a major factor affecting FPE.

Bar Graph 3: The Relationship Between Drought and FPE

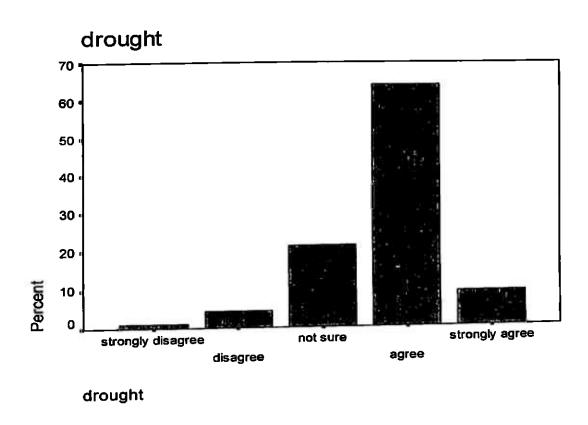


Table 4 strongly agreed (4.69) that school attendance was low at times of insecurity. From the table teachers strongly agreed that insecurity disrupted (4.72) school programmes. Teachers also agreed (4.43) that pupils would rather miss school than experience insecurity. This finding was somewhat consistent with the agreement (3.91) that insecurity caused poor academic performance. It can therefore be concluded that security is a critical component of the learning process in Rumuruti zone. Without security FPE is seriously affected.

Table 4: The Relationship between Insecurity and FPE

Table 4: Th	e Relat	tionsnip i	<u>petween</u>	<u>insecur</u>	ity and r	<u> </u>	
	N	Minimum	Maximum	Sum	Mean	Std. Deviation	Variance
Attendance is low at times of insecurity	89	2	5	417	4.69	.576	.332
Insecurity disrupts school	88	3	5	415	4.72	.478	.229
programmes Pupils miss school than insecurity	86	1	5	381	4.43	.952	.907
experiences Insecurity affects attendance	85	1	5	152		1.355	1.836
Insecurity causes poor performance	88	1	5	344	3.91	1.544	2.382
Valid N (listwise)	84						

In Bar Graph 4 only about 2 teachers or 2% of the sampled population disagreed that insecurity affected learning. On the other hand about 16 teachers or 18% of the respondents were not sure if insecurity affected FPE. However, a sizeable proportion of about 64 teachers or 72% of the respondents agreed insecurity affected FPE. From the bar graph it is also evident that a small proportion of about 7 teachers or 8% of the respondents strongly agreed that insecurity affected FPE. From the observations made security is one of the most significant factors affecting FPE in Rumuruti zone.

## Bar Graph 4: The Relationship between Insecurity and FPE

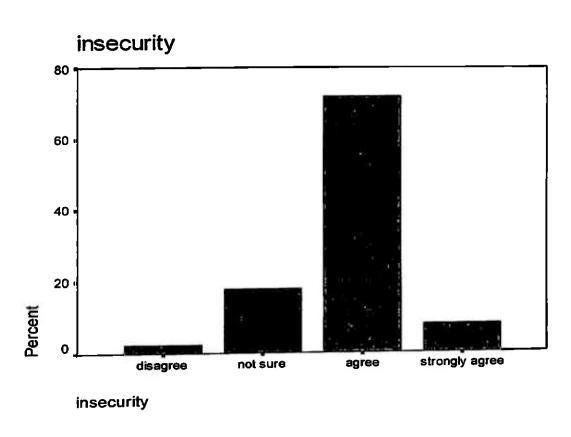


Table 5 illustrates how commitment of teachers relates with FPE.

Table 5: The Relationship between Commitment of Teachers and FPE

Table 5: The	e Reia	LIULISIND	DOLLIO OII	<b>—</b> — — — — — — — — — — — — — — — — — —			
Table 0. Th		Minimum	Maximum	Sum	Mean	Std	Variance
				,		Deviation	
	87	1	5	369	4.24	.862	.743
Good	0,	1	J				
performance							
attributed to							
teachers			5	352	4.00	.971	943
Teachers	88	<b>'</b>	3	002	1.00		10.10
report on time				354	3.98	.941	.886
Teachers	89	] 1	5	354	3.50	.541	.000
mark							
frequently				077	4 04	966	.751
Pupils trust	89	1	5	377	4.24	.866	./51
teachers							
Teachers	89	1	5	383	4.30	.897	.805
support pupils							
Valid N	86					1	
(listwise)							
[112[44]26]		!					

In table 5 respondents agreed (4.24) that good academic performance by learners was attributed to teachers. This observation concurred with that of the school executive committee members in table 14 where 53% of respondents agreed teachers commitment and effectiveness influenced learning. The respondents also agreed (4) that teachers report to class on time.

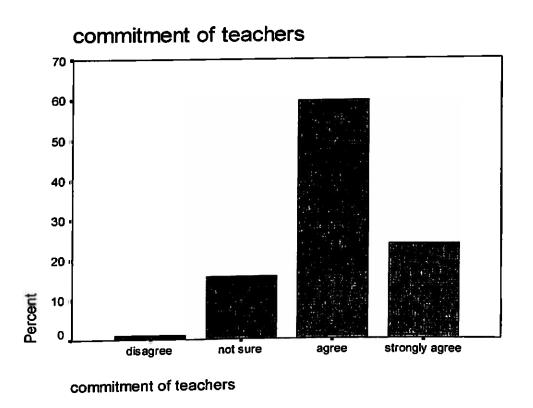
Data from the respondents indicates that they agreed (3.98) teachers mark books frequently. It also emerged that teachers agreed (4.24) pupils trusted them. Closely linked to this was the teachers' agreement (4.3) that they loved and supported their pupils. However, it is important to note that the positive image of teachers brought out by this table may be attributed to the fact that they were the respondents.

Bar Graph 5 revealed that an insignificant 1% of the respondents or about 1 teacher disagreed commitment of teachers affected pupils learning.

About 14 teachers or 16% of the respondents were not sure if their commitment affected pupils learning. It emerged that a significant proportion of about 53 teachers or 60% of the respondents agreed commitment of teachers affected pupils learning. Once again this finding concurred with that of the school executive committee members in table 14. This finding was closely linked with the findings from table 5 indicating

teachers mark class work frequently, that they love and support their pupils and that pupils trust them. On the same principle, teachers who strongly agreed that their commitment affected learning were about 21 in number or 24% of the population sampled. These findings indicate that teacher commitment is a significant and positive factor affecting FPE in Rumuruti zone.

Bar Graph 5: The Relationship Between Commitment of Teachers and FPE



In table 6 respondents agreed (3.67) what was learnt by pupils at school was practised and applied at home. This finding tended to agree with the

finding that teachers disagreed (2.22) what is learnt at school was irrelevant to what was practised at home. From the table we learn that teachers agreed (3.99) pupils were willing to learn. A close examination also revealed teachers agreed (4.30) that the future of pupils depended on education. This finding was somewhat consistent with the teachers' agreement (4.34) that learning equipped pupils for life. Therefore, incorporating locally available resources and learning experiences was critical to the learning process.

Table 6 highlights the relationship between curriculum relevance and FPE.

Table 6: The Relationship between Curriculum Relevance and FPE

Table 6:	ine Ke	iations <u>nip</u>	Detween	Cullica	idili <u>izer</u>	evalloc all	<u> </u>
145.5 5.	N		Maximum		Mean	Std.	Variance
						Deviation	
Pupils apply learning at	89	1	5	327	3.67	1.031	1.063
home Learning is irrelevant at home	89	1	5	198		1.277	1.631
Pupils are willing to learn	89	1	5				.920
Pupils future depends on learning	87	1	5	_		.864	.747
Learning equips pupils for life	88		5	382	4.34	.969	.940
Valid N (listwise)	86				:		

Bar Graph 6 indicates that about 7 teachers or 8% of the sampled population strongly disagreed curriculum relevance affected learning. An equal proportion of about 7 teachers or 8% of the sampled population disagreed that commitment by teachers affected learning. A higher majority of about 20 teachers or 22% of the population were not sure if curriculum relevance affected learning. The highest majority of about 45 teachers or 51% of the respondents agreed that curriculum relevance affected learning at school. To add on, teachers who strongly felt that curriculum relevance affected learning were 11% of the respondents or approximately 10 in number. In total all respondents who agreed curriculum relevance affected learning amounted to 64% of the population thus proving that curriculum relevance was a major factor affecting the FPE programme in Rumuruti Zone.

Bar Graph 6: The Relationship between Curriculum Relevance and FPE

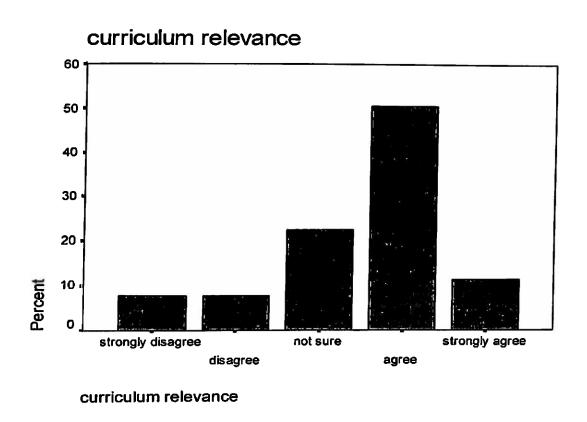


Table 7 reveals pupils are not sure (2.92) if they like the challenges faced at school. This observation concurs with the finding that pupils are not sure (3.45) if they know the benefits of education. Other than their teachers, pupils hardly come across role models who have made it in life as a result of education. In fact, most pupils within Rumuruti zone do not proceed to high school hence the uncertainty of the respondents regarding education benefits. In addition to that, respondents were not sure (3.17) if missing school made pupils sad. This conclusion was consistent with the

finding that respondents were not sure if attending school was a sacrifice. It is also evident from the table that pupils were not sure (2.52) if they like school.

Table 7 highlights the relationship between FPE and attitude towards education.

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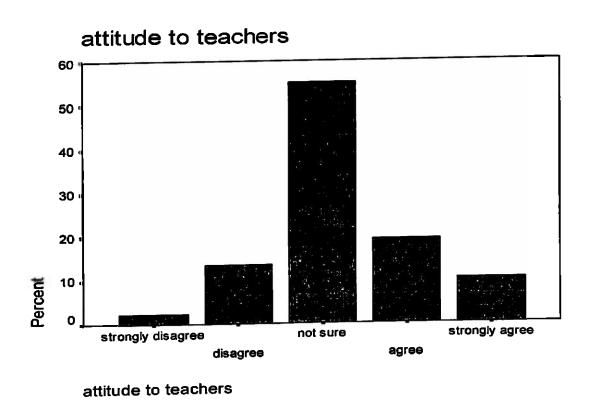
Table 7: The Relationship between FPE and Attitude towards

Educatio	n						
	N	Minimum	Maximum	Sum	Mean	Std.	Variance
			ľ			Deviation	_
Pupils like school challenges	84	1	5	245	2.92	1.282	1.644
Pupils know education benefits	86	1	5	297	3.45	1.204	1.451
Missing school makes pupils sad	88	1	5	279	3.17	1.127	1.269
Schooling is a sacrifice	89	1	5	274	3.08	1.170	1.369
Pupils dislike school	88	1	5	222	2.52	1.222	1.494
Valid N (listwise)	80						

Bar Graph 7 indicates an insignificant number of about 2 teachers or 2% of the sampled population strongly disagreed that attitude towards education affected learning. A reasonably higher number of about 12 teachers or 13% of the respondents disagreed attitude towards education

affected learning. However, majority of teachers (50% of the respondents) were not sure if attitude towards education affected FPE. This was contrary to school committee members (53%) who stated in table 14 that teacher effectiveness affected learning. The second highest majority of about 17 teachers or 19% of the total population agreed attitude towards education affected learning. There were 10% of the respondents or about 9 teachers who strongly agreed attitude towards education affected FPE.

Bar Graph 7: The Relationship between Attitude and FPE



The fact that 50% of the teachers were not sure if attitude towards education affected FPE was puzzling. The researcher attributes this finding to the fact that teachers were probably not willing to present a true picture of the attitude they create among pupils. Being the age of performance contracts, consistent reviews and appraisals, respondents may have viewed the question on attitude as a critical performance test hence opting for an ambiguous option.

## Views of Teachers on Factors Affecting FPE in Rumuruti Zone Open Items

In analyzing data from open ended items, responses were closed and subsequently coded. Thereafter, the frequency (N) and percentage of respondents who supplied a given response were computed.

Responses regarding the most critical factors affecting FPE were the first to be analyzed followed by recommendations on how these factors could be addressed. The analysis began by looking at ideas of how child labour affected FPE in respective schools.

About 50% of the respondents stated that child labour affected FPE in their school. While stating pupils missed school and walked long distances so as to supplement their parents income, it is important to note that this

finding generally concurs with bar graph one where 48% of the respondents felt child labour affects FPE.

The item on teacher—pupil ratios did not elicit consistent findings.

About 40% 0f the respondents stated that the class size did not matter as some large classes produced good results while some small classes produced poor results. Another 46 % stated that class size was related to performance while the remaining 14% were not sure of the relationship between teacher — pupil ratios and academic performance. While noting the trend above is quite similar to that highlighted in bar graph two, there lacks a clear relationship between teacher — pupil ratios and the FPE programme.

Respondents had a strong feeling that drought affected FPE as over 70% felt that a significant number of pupils attended school on days or periods when food was available. The same respondents stated that school attendance reduced noticeably when food got finished in the school stores. This finding was generally similar to that in bar graph 3 where 64% of the respondents agree drought affected learning.

When asked to list five experiences that reflected teacher commitment to pupils, teachers gave the following. About 25% gave examples such as

assisting pupils to prepare the school farm, teaching examination classes over lunch hour and allowing poor pupils to carry WFP food home as a supplement for supper. The rest of the respondents lacked concrete responses despite the fact that 60% had stated in bar graph 5 that commitment of teachers affects pupils learning.

Insecurity also ranked highly as a factor affecting FPE as 65% stated it adversely affected school attendance whenever fighting broke out. This finding was generally similar to that in bar graph four where 72% of the respondents stated insecurity affected FPE.

Regarding insecurity the most popular solutions advocated by respondents were promotion of dialogue among communities and increased police patrols. Majority of respondents suggested boreholes and dams be put up as a means of mitigating drought and poverty.

## **Views of School Executive Committee Members**

The study first presents a summary of the responses of school executive committee members. Thereafter, the study presents detailed responses of factors affecting FPE.

Table 8 suggests that school executive committee members agreed (3.52) child labour is related to FPE. The respondents also agreed (4.19) that teacher - pupil ratios were related to learning. In addition, the respondents agreed (4.21) insecurity and curriculum relevance (3.79) were related to learning. However, the committee members disagreed (2.12) that pupils attitude had any relationship with learning. However, the respondents agreed teacher effectiveness affected learning at school.

Table 8: A Summary of the Relationships between FPE, Child Labour, Teacher – Pupil Ratios, Drought, Insecurity, Curriculum Relevance,

Pupils Attitude and Effectiveness of Teachers.

Pupils Attit					Mean	Std.	Variance
	N	Minimum	Maximum	Suili	IVICALI	Deviation	
Child labour	41	<del>- 1</del>	- 5	144	3.51	1.165	1.356
teacher- pupil	42	1	5	176	4.19	1.087	1.182
ratio Drought	42		5	180	4.29	.708	.502
Insecurity	42		5	177	4.21	1.025	1.051
Curriculum	42		5	159	3.79	.951	.904
relevance pupils attitude	42	1	5	89	2.12	1.310	1.717
Teacher effectiveness	42		5	172	4.10	.790	.625
Valid N (listwise)	41						

Table 9 highlights the feelings and responses of the school committee members towards child labour. A mere 2% of the respondents strongly disagreed that child labour affected learning. In addition, 26% of the respondents disagreed child labour affected learning. It also emerged 7% of the respondents were not sure of the effects of child labour on learning while a majority of 43% of the respondents agreed child labour affected learning. This finding can be explained by the fact that parents send their children to earn so as to supplement income. This enables families to earn for their basic needs hence concurring with table 1 where respondents agreed schooling was dissatisfying if basic needs were not met. Further on, 19% of the respondents strongly agreed child labour affected learning. In total, 62% of the respondents viewed child labour as a factor affecting FPE.

Table 9: The Relationship between Child Labour and FPE

Response	Frequency	Percent	Valid	Cumulative
Response	, , , , , ,		Percent	Percent
strongly disagree	1	2.4	2.4	2.4
Disagree	11	26.2	26.8	29.3
not sure	3	7.1	7.3	36.6
Agree	18	42.9	43.9	80.5
strongly agree	8	19.0	19.5	100.0
Total	41	97.6	100.0	
System	1	2.4		
	42	100.0		

Table 10 illustrates the effects of teacher - pupil ratios on learning.

An insignificant 2% of the respondents strongly disagreed that teacher pupil — ratios affected learning. A higher percentage of the respondents also (12%) disagreed that teacher — pupil ratios affected learning. On the other hand, 36% of respondents agreed that teacher — pupil ratios affected learning while the majority (50%) of the respondents strongly agreed that teacher — pupil ratios affected learning. This was contrary to the findings in bar graph 2 where 47% of the respondents were not sure if teacher—pupil ratios affected learning. Being parents, executive committee members were bound to have strong feelings about large classes hence explaining the fact that 50% among felt teacher — pupil ratios affect FPE.

Table 10: The Relationship between Teacher-Pupil Ratios and FPE

Response	Frequency	Percent	Valid	Cumulative
Kesponse	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Percent	Percent
strongly disagree	1	2.4	2.4	2.4
Disagree	5	11.9	11.9	14.3
Agree	15	35.7	35.7	50.0
strongly agree	21	50.0	50.0	100.0
Total	42	100.0	100.0	

From table 11 we learn an insignificant 2% of the respondents disagreed that drought affected learning. A mere 7% of the respondents were not sure if drought affected learning. However, a sizeable 50% of the respondents agreed that drought affected learning in schools. A closer

examination revealed that 41% of the respondents strongly felt drought affected learning. The feelings of the executive committee concurred with those of teachers in table 3 and bar graph 3 where 64% of the teachers agreed drought affected learning. Thus drought was a major component affecting the learning process in Rumuruti zone. This is explained by the fact that Rumuruti is a semi-arid area that persistently experiences drought.

Table 11: The Relationship between Drought and FPE

I able 11.	THE ITEM	- VIII-		
Response	Frequency	Percent	Valid	Cumulative
1,0000	1		Percent	Percent Percent
Disagree	1	2.4	2.4	2.4
not sure	3	7.1	7.1	9.5
Agree	21	50.0	50.0	59.5
strongly	17	40.5	40.5	100.0
agree				<del> </del>
Total	42	100.0	100.0	

Table 12 illustrates the effects of insecurity on learning as highlighted by school committee members. Those disagreeing with security as a factor influencing learning were 12% of the respondents. To add on, 7% of the respondents were not sure if insecurity had any effect on learning. The second highest majority (29 % of the respondents) agreed insecurity affected learning. Above all, a significant 52% of the respondents strongly agreed insecurity affected learning. Thus the view on security by teachers was generally similar to that of executive committee members as 72% of the teachers had stated in bar graph 4 that insecurity

affects learning.

Table 12: The Relationship between Insecurity and FPE

. ~~.~				
Response	Frequency	Percent	Valid	Cumulative
	1 ' 1		Percent	Percent
Disagree	5	11.9	11.9	11.9
not sure	3	7.1	7.1	19.0
Agree	12	28.6	28.6	47 <u>.</u> 6
strongly agree	22	52.4	52.4	100.0
Total	42	100.0	100.0	

Table 13 highlights the relationship between curriculum relevance and learning. In brief, 12% of the respondents disagreed that curriculum relevance had any effect on learning. What is more, 21% of the respondents were not sure if curriculum relevance had any effect on learning. On the contrary, 43% of the respondents agreed that curriculum relevance affected learning. This generally concurred with bar graph 6 where 51% of the teachers agreed curriculum relevance affected learning. To sum up, 24% strongly agreed curriculum relevance affects learning. Thus curriculum relevance emerged as a major factor affecting FPE in Rumuruti zone.

Table 13: The Relationship between Curriculum Relevance and FPE

I abic iv		v		
Response	Frequency	Percent	Valid	Cumulative
, 100, 511.55	1		Percent	Percent
Disagree	5	11.9	11.9	11.9
not sure	9	21.4	21.4	33.3
Agree	18	42.9	42.9	76.2
strongly	1C	23.8	23.8	100.0
agree	L			
Total	42	100.0	100.C	

Table 14 is a case in point about how pupils attitude can be related to learning. A majority (43% of respondents) strongly disagreed that pupils attitude affected their learning. On the other hand it is important to note that there seems to be a relationship between majority of teachers (50%) in bar graph 7 who were not sure if attitude affected learning and the (43%) committee members who disagreed attitude affected learning. The second highest majority (31% of the respondents) also disagreed that pupils attitude affected learning. An insignificant 5% of the respondents stated they were not sure if attitude of pupils influenced learning.

However, a notable 14.3% of the respondents agreed attitude of pupils affected learning. Above all, 7% of the respondents strongly disagreed pupils attitude affected learning. In conclusion, the study was unable to convincingly verify the relationship between attitude and FPE.

Table 14: The Relationship between Pupils Attitude and FPE

Response	Frequency	Percent	Valid	Cumulative
	' '		Percent	Percent
strongly disagree	18	42.9	42.9	42.9
Disagree	13	31.0	31.0	73.8
not sure	2	4.8	4.8	78.6
Agree	6	14.3	14.3	92.9
strongly agree	3	7.1	7.1	100.0
Total	42	100.0	100.0	
		I .		

Table 15 has the respondents' attitudes towards teacher effectiveness and commitment. At least 5% of the respondents disagreed that teacher effectiveness influenced learning while 12% of the respondents were not sure if teacher effectiveness affected learning. 53% of the respondents agreed teacher effectiveness affected learning thus implying teachers' approach to lessons was a major factor affecting FPE. The findings suggested that teachers shaped pupils attitude towards learning. The second highest majority (31% of the respondents) strongly agreed that teacher effectiveness affected learning.

Table 15: The Relationship between Teacher Effectiveness (Commitment) and FPE

(Communency and 17 E				
Response	Frequency	Percent	Valid	Cumulative
1,00000000	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	!	Percent	Percent
Disagree	2	4.8	4.8	4.8
not sure	5	11.9	11.9	16.7
	22	52.4	52.4	69.0
Agree strongly	13	31.0	31.0	100.0
agree				
Total	42	100.0	100.0	

# Views of Executive Committee Members on Factors Affecting FPE in Rumuruti Zone

### Open Ended Items

In analyzing data from open ended question items, responses were closed and subsequently coded. Thereafter, the frequency (N) and percentage of respondents who supplied a given response were computed.

Responses regarding factors affecting FPE were first analyzed followed by recommendations on how these factors could be addressed. The analysis begins by looking at ideas suggested by committee members on what can be done differently in the FPE programme.

### Critical Issues Affecting FPE

Analysed data revealed that security was a major set back to FPE.

This was attributed to inter - tribal fighting caused by cattle rustlers and armed groups with the desire to expand inhabited territory. Dialogue and increase in number of security officers were the prominent solutions suggested by respondents.

Wild animals were also highlighted as a major set back to the FPE programme. This is because animals like elephants prevented pupils from attending school. In addition to that, animals destroyed school farms meant to supplement WFP food. Majority of the respondents suggested wild animals to be moved away. It was also suggested that a population control programme for elephants be implemented as they paused a major threat to communities.

When asked to suggest what they would implement differently from current FPE planners, majority of the respondents stated they would include uniform in addition to books and stationery supplied.

The second largest majority stated they would include nursery schools in the FPE programme. A third and prominent set of respondents stated they would provide school finances according to needs but not according to population in schools. This suggestion was based on the fact that certain schools were small but too poor hence getting insufficient funds as advanced financial resources are pegged on population of pupils and not on needs of schools.

#### **CHAPTER FIVE**

## SUMMARY OF THE STUDY, RESEARCH FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

The aim of the study was to determine factors affecting the implementation of FPE in public primary schools in Rumuruti Zone, Laikipia District, Kenya.

The history of this study dates back to 1963 when the KANU government used FPE as a pre-election promise. However, it was not until 1973 that FPE covered the whole country. This move strained available resources. Teachers were few, classrooms were rendered inadequate and learning materials insufficient.

Thus schools and communities had to meet the shortfall caused by the FPE programme. Subsequently, the programme did not succeed hence its rejuvenation and subsequent collapse in 1979 and 1984. In 2002 the election of a new government led to rejuvenation of the FPE programme with renewed vigour. However, several problems were highlighted through the mass media, trade unions, politicians, educationists, parents and communities. These problems were even more pronounced in marginal parts of the country in the light of the observation that these areas are characterized by drought, insecurity and negative cultural practices.

The problems highlighted above were expounded in the literature review which included the background of FPE in Africa and Kenya. The review also included effects of child labour on FPE, effects of teacher – student ratios on FPE, drought and its effects on FPE, insecurity and its effects on FPE, effects of teacher commitment on FPE, the relevance of the curriculum to pupils in FPE and attitude towards FPE.

In order to achieve the intended purpose of the study, pertinent data was collected using two parallel questionnaires, one for teachers and the other for school executive members. The two questionnaires were developed after reviewing the aforementioned literature. Before the questionnaires were administered a pilot study was carried out in order to establish whether the instruments would gather the relevant data. After the trial study items that were unclear to the respondents were rephrased while those that appeared to be irrelevant to the study were discarded.

The revised questionnaires were administered to teachers and school executive committee members. A total of 89 duly filled questionnaires were received back from the teachers. Of the 45 questionnaires presented to executive committee members 42 were received back.

The raw data from the questionnaires was coded and analysed using the social science programme (SPSS). Open ended questions were analysed by computing the frequency (N) and percentage of respondents who supplied a given response in a given question item.

### Research Findings

Findings were classified into three broad categories; namely findings on challenges that affect implementation of FPE in Rumuruti zone, findings on the extent to which each challenge affects FPE and how challenges affecting FPE in Rumuruti zone may be addressed.

# Findings on Challenges that Affect the Implementation of FPE in Rumuruti Zone

From the research, respondents strongly agreed that attending school was preferable to working. It emerged that majority preferred attending school so long as their basic needs were met. Irrespective of the realization that child labour was a significant factor affecting FPE, positive attitude towards the programme explains improved performance at KCPE over the last six years, as illustrated by table 16.

On the contrary, It was evident that good performance was not related to class size. Thus the desire to have small or ideal classes does not affect

performance. Further on, was an overwhelming agreement that drought affected FPE. This explains the reduction in performance index between 2003 and 2004 when drought forced pupils to drop out of school in large numbers.

Security too emerged as a major factor affecting FPE. This observation is highlighted by the decrease in KCPE mean grade between 2005 and 2006. This was a period when a lot of fighting occurred between different ethnic groups.

From the study majority agreed teacher effectiveness and commitment affected FPE. This was the view held by both teachers and executive committee members thus rightfully concluding teachers were pillars of the FPE programme. This observation explains improved KCPE performance highlighted by table 16.

Conclusive findings indicated that curriculum relevance was related to FPE as illustrated by majority of teachers. A relevant curriculum implies increased interest from students hence improved academic performance as illustrated by table 16. In contrast, attitude did not have a strong relationship with FPE as the study failed to illustrate a clear relationship between learning and attitude towards FPE.

Table 16: The KCPE Performance Index of Rumuruti Zone between 2001 and 2006

Year	Performance Index
2001	229.63
2002	238.45
2003	237.44
2004	233.82
2005	248.01
2006	240.65

Source: AEO Rumuruti Division

## Findings on the Extent to which each Challenge Affects FPE in Rumuruti Zone

From the findings of the study, the respondents rated insecurity highly as a factor affecting FPE. 79.8% of the responses rated insecurity highly as a factor. Drought was rated second highest with 73% of the responses rating it as a factor affecting FPE. Curriculum relevance ranked third with 61.8% of the respondents ranking it as a factor affecting FPE. Child labour ranked fourth with 48.3% of the respondents stating it affected FPE.

Teacher- student ratios ranked fifth with 46.1% of the respondents stating it affected FPE.

How Challenges Affecting FPE in Rumuruti Zone can be Addressed

Majority of the respondents stated that insecurity can be addressed

through increased dialogue among communities. They also felt increased

presence of police via building of more police and para-military camps

would help quell cattle rustling and tribal animosity.

A significant proportion felt drought would be best addressed through intensive digging of boreholes and dams. They felt this would increase food production and avail water for livestock. Respondents also stated that enough water would mitigate poverty as food crops would be grown for domestic and commercial purposes.

A sizeable majority among teachers and executive committee members were of the feeling that use of local resources fostered curriculum relevance. On the Other hand, a relatively high number of respondents felt that child labour should be addressed by digging boreholes and dams as families would then support themselves economically via small scale irrigation.

#### Recommendations of the Study

Based on the findings of the study, recommendations highlighted below were made. The study recommended that research on drought mitigation be done in future as this would review ways of decreasing poverty levels within the community hence decreasing child labour and increasing school attendance. An intensive study on ways of controlling insecurity has also been advocated by this study. Such a study would develop tailor made security management programmes thus encouraging healthy intercommunity interaction.

This study also recommends an intensive study be done on teacher – pupil ratios and their effect on learning as this study failed to come up with concrete relationships between the two parameters.

This study also recommends that an intensive study be done on the relationship beween attitude of students and FPE. Such a study would be handy as pupils in Rumuruti zone are highly influenced by culture.

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### **QUESTIONNAIRE FOR TEACHERS**

#### INSTRUCTIONS

- i). Information provided will be kept strictly confidential and may be used as a useful variable in this study.
- ii). Accurate and genuine responses are very important for this study.
- iii). The purpose of this questionnaire is to obtain information that will assist research to establish factors that affect the provision of Free Primary Education in marginalised areas.
- iv). Your assistance in this exercise is requested.

### Section A

#### Personal data

- A). Name of your school:.....
- B). Indicate if male or female by ticking- M.... F....

### Section B

#### Instructions

- i) Please show your feelings about the issues highlighted below by ticking. Your feelings are represented by the words; Strongly Agree (SA), Agree (A), Not Sure (NS), Disagree (D) and Strongly Disagree (SD).
- ii) There is no correct or wrong answer.
- iii) You are requested to be honest.

### A. Child Labour and School

### **Attendance**

- 1. Attending school is better than working
- 2. Work gives pupils satisfaction
- 3. Working and schooling have similar benefits
- 4. With basic needs schooling is better than working
- 5. School is dissatisfying if basic needs are not met

SA	A	NS	D	SD
	<u> </u>			
<del></del> -		-		

### B. Teacher-Pupil Ratio

- 1. Poor grades are characteristic of large classes
- 2. Good grades are characteristic of small classes
- 3. Teachers have difficulties teaching large classes
- 4. Class size does not influence pupil performance
- 5. Pupil's grades are good though classes are large

		_		
SA	Α	NS	D	SD
	_			

### C. Drought

- 1. Pupils miss school at times of drought
- 2. Pupils perform poorly at times of drought
- 3. Availability of food influences performance
- School attendance is good on food rationing days
- Drought has little influence on pupil academic performance

SA	Α	NS	D	SD
		-		
_				

### D. Insecurity

- 1. School attendance is low at times of insecurity
- 2. School programmes are disrupted at times of insecurity
- 3. Pupils prefer to miss school than get affected by insecurity
- 4. Insecurity does not affect school attendance5.Insecurity causes poor
- academic performance

SA	Α	NS	D	SD
				i
_	-	-	-	

### E. Commitment of Teachers

- 1. Good performance can be attributed to teachers
- 2. Teachers usually report to class on time
- 3. Exercise books are frequently marked on time
- 4. Pupils trust their teachers
- 5. Teachers love and support pupils

SA	Α	NS	D	SD
		l		

### F. Curriculum Relevance

- 1. What is learnt at school is applicable at home
- 2. What is learnt at school is irrelevant to what is done at home
- 3. Pupils are willing to acquire further knowledge at school
- 4. Pupils future depends upon the knowledge learnt at school
- 5. What is taught at school equips pupils for life

SA	Α	NS	D	SD
_	_			
_	<u>-</u>		-	
	_			
		_		
ļ.				

### G. Attitude towards Education

- 1. Pupils dislike school life
- 2. To most pupils attending school is a sacrifice
- 3. Missing school makes pupils sad
- 4. Pupils know the benefits of education
- 5. Pupils like challenges faced at school

SA	Α	NS	۵	SD

# SECTION C

	i labour affected FPE in your school?
***************************************	
•••••	
2. Has the teach	er- pupil ratio affected academic standards in your
school?	
a) Yes	b) No
3. If you have cit	rcled (a ) in question 2 above explain how the teacher-
pupil ratio has in	fluenced academic standards in your school.
**********	
••••••	
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	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
••••	
	*****

4. Explain how drought affects school attendance and academic
performance in your school
•••••••••••••••••••••••••••••••••••••••
•••••••••••••••••••••••••••••••••••••••
5. On a scale of 1 to 10 indicate (by circling) how critical security is to
school attendance with 1 being the least critical and 10 the most
critical: 1 2 3 4 5 6 7 8 9 10
6. On a scale of 1 to 10 indicate (by circling) the relevance of the
school curriculum to pupils experiences at home where 1 is the least
relevant and 10 the most relevant:
1 2 3 4 5 6 7 8 9 10
<ol><li>As a teacher list down five incidents/experiences (over the last year)</li></ol>
that reflect commitment to your pupils:
•••••••••••••••••••••••••••••••••••••••
***************************************

8. In your view what can be attributed to the pupils attitude towards
education. Is it:
a. Cultural beliefs and practices
b. The influence of teachers
c) The influence of parents
d) Other
9. If you picked (d) in question 8 above state what can be attributed to
pupils attitude towards education in the space provided below
***************************************
***************************************
***************************************

10. What do you consider as the seven most important issues affecting
FPE in your area?
•••••••••••••••••••••••••••••••••••••••
11. Why are the issues highlighted in question 10 above important to
you?
***************************************

12. How can the issues in question 10 be addressed?
***************************************
***************************************
***************************************
•••••••••••••••••••••••••••••••••••••••
Thank you for your assistance.

## QUESTIONNAIRE FOR SCHOOL EXECUTIVE COMMITTEE MEMBERS

#### **INSTRUCTIONS**

- i) Information provided will be kept strictly confidential and may be used as a variable in this study.
- ii) Accurate and genuine responses are very important for this study.
- iii) The purpose of this questionnaire is to obtain information that will assist research to establish factors that affect the provision of Free Primary Education in marginalized areas.
- iv) Your assistance in this exercise is requested.

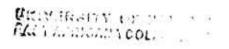
### Section A

Personal data
A). Name of your school:
B). Your capacity in the school executive
committee

### Section B

- 1. Child labour affects school attendance.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree
- 2. Compared to the number of teachers available, the pupils are too many.
  - a. Strongly agree
  - b. Agree
  - c. Not sure
  - d. Disagree
  - e. Strongly disagree

<ul> <li>3. At times drought forces pupils to miss school.</li> <li>a. Strongly agree</li> <li>b. Agree</li> <li>c. Not sure</li> <li>d. Disagree</li> <li>e. Strongly disagree</li> </ul>
<ul> <li>4. School attendance depends on security.</li> <li>a. Strongly agree</li> <li>b. Agree</li> <li>c. Not sure</li> <li>d. Disagree</li> <li>e. Strongly disagree</li> </ul>
5. At home pupils apply what is learnt in school.  a. Strongly agree b. Agree c. Not sure d. Disagree e. Strongly disagree
6. Pupils dislike school.  a. Strongly agree  b. Agree  c. Not sure  d. Disagree  e. Strongly disagree
7. Good performance can be attributed to teachers.  a. Strongly agree b. Agree c. Not sure d. Disagree e. Strongly disagree
8. Highlight the most important issue affecting Free Primary Education in your area.
***************************************



9. How can the issue highlighted in question (8) above be addressed?
***************************************
***************************************
10. What would you do differently if you were the one to implement free primary education?
10. What would you do differently if you were the one to implement free primary education?
10. What would you do differently if you were the one to implement free primary education?
10. What would you do differently if you were the one to implement free primary education?
10. What would you do differently if you were the one to implement free primary education?

## Budget of the Research in K.Shs

Traveling	30, 000	
Stationery/Binding	10,000	
Computer services	10,000	
Research	25,000	<u> </u>
Library membership	5,000	
Miscellaneous	20,000	

# 11.0 SUMMARY OF YEAR 2004 KCPE PERFORMANCE STATISTICS RAW MEANS BY DISTICT, PROVINCE & GENDER

	1			+110				R	AW MA	RKS'S1	A TISTI	CS BY	GENDE	EIR .			:-a-a.::11		DISTRI	CT TOTAL	INTO CONTRACTOR
PROVINCE	CANDE	DATURE	(	(31.1811 (38.J (50)	co	1.1SH MP 10)	0	SWA BJ 50)	INS	WA 311A 10)	MΛ' (5			ENCE 50)	(6 C1	IC 0).	R (3	E O)		LL RAW BY	DISTRICT TOTAL RAW MEANS
COAST	M	F	M	F	M	F	M	F	М	F	М	$\overline{F}$	М	F	М	F	M	F	M	F	
Laita Taveta - 191	3.457	1,362	21.74	27 22	12.12	13.82	27.29	27.17	16.79	18.42	21.28	19.63	20.07	19.80	34.18	31.40	19.44	18.94	172.62	169.88	171.27
Kiliji - 102	4,901	3,086	23.11	22.66	14.41	14.12	29.35	28.35	19.60	20.19	25.50	22.57	24.60	21.02	37.55	52 88	20.75	20.13	193:18	179.84	188.02
Tana River - 103	823	523	20.63	20/21	11.72	11.69	26.08	25.88	17.94	19.40	20.59	17.39	21.65	18,90	25.10	.10 44	20_36	19.15	173.86	162.09	169.27
Lama 104	714	372	21.02	20 Z8	11.30	11.82	26.89	25.31	17,02	18.35	21.26	19.27	21.69	19.77	14.05	30 12	20.02	19.25	171.27	163.77	167.95
Awale - 105	4,403	2,999	2041	19.87	11.49	11.32	27.28	25.98	18.30	19.25	21.02	18.24	21.08	18.37	.1312	28,89	18.36	17:10	170.70	158.64	165.82
Mombasa - 106	4,881	1,248	24.22	24.55	15.48	<i>16 90</i>	27.78	27.54	18.70	19.88	24.29	23.01	23.04	2121	35.38	32.96	20.29	20 18	188.19	184.57	186.44
Malindi - 107	2,367	7,338	21/62	20.54	13.73	13.16	28.36	27.25	17.82	18.06	22.28	9.86	22.79	19.41	35.36	30.64	19.37	18.88	180.02	166.53	174.97
Total Coast	21,415	16,324	22.22	22.13	13.,18	14.02	27.93	27.17	18.34	19.26	22.92	20.75	22.72	20.07	35.20	31.48	19.38	-9.09	181.14	17:.77	177.52
COAST									-	<u>'</u>	<del></del>	<u></u>		<del></del>	E.	<u></u>	l	<b>'</b>		1	177.52
/Vyandarua+201	7,390	7,890	22 05	21.72	11.99	12.98	13.71	22.76	14.74	15.63	22.83	20.74	22.31	1000	10.00				<del></del>		<u>.</u>
Nyeri - 202	10,306	10,860	├	25.59	13.94	<del> </del>	23.30	22.88	15.26	16.93			22.31	19.95	12.97	29.88	18.00	17.46	166.71	158.91	162.68
Kirmyaga - 203	5.9064	0,136	1.4 8.4	23.71	14.10	15.34	24.48	23.80	16.28	17.35	24.15	22.95	<del> </del>	21.77	24.37	32.13	18.91	18.08	175.80	173.13	174.43
Murang'a - 204	5.717	0.327	21.80	21 92	12.19	13.89	22.28	<del></del>	<del></del>		25.35	23.03	-	22.50	35.79	32.65	.12.28	20.79	183.50	175.48	179.42
Kumbu - 208	8,927	9.073		┼──-	-	-		21.96	15.02	16.46	24.39	22.55	23.07	21.18	33.40	31.05	17.48	17.86	169.70	165.63	167.56
Thika Mncp - 206	979		22.74	23.00	16.63	15.25	22.75	22.51	13.98	15.29	22.14	20.66	21 70	19.95	32.36	30.37	16.55	18.19	166.47	163,56	165.00
Tlaka Dstr - 207		854	25.61	25 80	17.84	20.22	26.70	25.78	18.76	18.98	24.70	23.33	24.12	22.43	36.25	33.97	19.80	19.44	192.44	188.01	190.38
	7,308	7,679	22.35	22 04	13.04	14.00	22.80	21.91	15.00	15.90	22.64	20.28	22.19	19.76	32.89	30.01	18.87	18.48	167.90	160.30	iii 164.02
Maragua - 208	0.453	0.127	21.12	20.61	12.40	<del> </del>	21.58	20.58	14.33	15.05	22.91	20.41	21.14	18.72	32.28	28.63	18.30	17.01	162.46	152.63	157.54
Total Central	53,134	55,245	22.59	22.52	13.24	14.51	23.07	22.41	14.98	16.14	23.44	21.56	22.75	20.60	33.47	30.78	18.45	18.17	170.76	164.99	167.82

								RA	W MAI	KS STA	ATISTIC	S BY C	ENDE	it.						TOTAL	DISTRICT
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ESTERN	M	F	M	F	М	j.	М	F	м	F	М	F	М	F	М	F	М	F	М	F	
Machakos - 301	14,851	15,315	22.33	22.61	14.6	15.84	23.88	23.59	17.39	18.70	22.82	20.72	22.53	20.59	34.23	31.68	18.22	19.79	174.96	170.43	172.66
Kimi - 302	8,039	7,986	21.70	21.37	12.26	12.65	23 03	22.46	15.41	16.36	23.32	20.42	22.27	19.76	33.71	30.14	19.60	19.43	168.09	159.38	163.75
Endu 303	3,334	4,013	23.42	24.18	13.63	15.99	23.97	23.91	14.86	16.75	22.77	20 96	22.79	21.28	34.18	32.15	21.96	22.00	173.74	173.69	173.71
Meru Cntrl 304	5,800	6,478	22.24	22 69	11.97	13.71	23.81	23.03	14.28	15.95	21.40	19.97	21.61	19.99	33.01	30.96	21.60	19.82	165.86	162.97	164.14
Isiolo - 306	802	595	23.81	22.82	13.86	12.89	24.56	23.93	15.07	15.35	23.49	20.19	23.61	20.46	37.51	33.10	20.98	19.42	182.06	166.28	175.31
Makueni - 307	12,544	13,069	24 04	23.88	16.21	16.73	25.41	24.68	17.49	18.21	26.41	23.85	25.14	22.56	37.06	34.00	20.67	20.54	190.00	181.61	185.72
Meru Sth - 308	2,748	2,991	23.54	24 (1)	14.01	15.68	24.59	24 03	16.65	18.45	22.76	21.27	22.79	20.81	34.71	32.14	18.30	23.63	176.95	173.70	175.25
Meru Nth - 309	4,577	5,225	22.14	21.99	12.26	13 00	25.14	23.26	15.44	16.08	22.52	19.61	22.19	19.57	34.38	30.37	18.26	17.57	170.79	158.78	164.37
Alwingt - 110	3,838	3,806	22.21	21.59	13.22	13.81	23.76	22.90	16.62	17.60	23.16	20.26	23.13	20.26	35.25	31.57	20.32	20.44	174.30	165.01	179.67
Moyale 511	657	278	22 00	19.80	11.71	9.74	19.42	17.15	12.10	10.74	24.05	19.12	22.78	19.17	37.25	31.11	20.07	17.78	168.57	140.92	160.25
Albeere 312	2,423	2,659	22.11	22 15	13.49	14.20	23.76	22.97	16.37	17.51	22.53	19.81	22.57	19.81	34.47	31.16	18.73	17.46	172.36	164.06	168.01
Thamka - 313	1,005	1,049	2199	23 25	13.40	14 29	25.14	23 47	17.79	18.54	25 99	22.42	24.57	21.45	38.63	34.26	19.08	18.93	188.24	175.47	181.70
Total Eastern	61.402	63,681	22.77	22.78	13.92	14.89	24.17	23,52	16.33	17.46	23.80	21.16	23.07	20.76	34.95	31.88	19.38	18.44	176.26	169.29	172.70
NAROB1 - 461	11.699	11,972	25.93	26.56	18.16	20.33	25.63	25.85	16.61	18.07	24.75	23.96	23.65	22.04	35.88	3-1.05	19.13	19.42	188.22	188.31	188.20
RIFT VALLEY	<u>'</u>	·														•					
Turkana = 501	1,496	763	24 11	22.59	1-1.01	13.12	25.98	25.10	15 24	15.43	29.54	23.66	27.03	23.23	45.35	37.31	21.76	16.86	198.88	177.24	191.50
Samburu 502	1,002	462	22.12	21.51	11.99	12.30	23.32	24.28	13.40	14.81	22.87	19.47	22.96	19.90	36.82	32.76	20.81	19.98	172.13	163.77	169.49
Tr/Nzora - 503	5,747	5.548	22.41	22.14	11.61	12.35	27.21	25.92	15.87	17 15	24.13	20.95	23.62	20.46	36.06	31.78	17.60	20.80	177.77	166.01	171.98
Kitale Mac - 504	810	838	24 89	24 39	11.16	-	1	28.17	17.87	19.05	25.84	22.98	25.32	22.50	37.92	34.65	22.34	22 02	190.81	183.44	187.06
West Polot 505	2,334	1.056	22.83	22.41	11.74	12.63	-	24.23	15.64	16.80	27.19	23.35	25.51	22.76	40.00	35.75	22.00	19.60	186.11	175.05	181.50
Nakuru Ame 500	2,213	2,097	24.58	-	1-1.39	15.50	26.21	25.32	17.14	18.23	23.73	20.81	22.82	19.90	35.83	31.83	21.47	20.87	188.48	172.54	177.64
Eldoret Mucp = 507	<del> </del>	1,748	24 80	-	14.26	15.44	27.42	27.04	16.65	17.90	25.16	23.15	24.33	21.85	36.66	33.74	19.33	17 24	186.20	180.64	183.38

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							,	R	AW MA	RKS ST	'A'TISTI	CS BY	CENDI	er					DISTRI	CTTOTAL	Disperse
PROVINCE	CANDI	DATURE	(	ALISTI OBJ 50)	co	LISII MP 0)	K18 . O. (5		INS	WA 511A 10)	MA*	THS (4)		ENCE   50)		nc (0)	10	LE SOI		LL RAW By	DISTRICT TOTAL RAW MEANS
R/VALLEY	M	F	VI	F	M	F	M	F	M	F.	IVI	F	M	$\Gamma$	М	F	M	F	M	F	j.
Bomet - 508	6,005	5,333	21.90	21.21	11.86	12.03	19.72	18.70	12.12	12.71	27.04	23.52	24.37	20.90	35.82	31.72	17.51	17.15	169.61	156.51	163.43
Uasın Gishu - 509	8,406	5,524	23.49	23.38	12.34	13.65	26.32	25.67	14.87	16.29	27.08	24.17	25.11	22.18	38.21	34.73	19.52	16.81	185.48	176.63	180.99
Kericho - 512	6,9118	6,072	22 79	22.30	13.88	14.80	22.89	22.12	15.49	15.92	26.22	22.58	24.19	20.80	36.50	32.36	18.39	19.05	179.46	167.52	173.86
Nandt 513	4,035	3,903	23.46	23.34	12.42	13.76	24.20	24.118	14.07	15.91	26.84	23.71	25.05	21.90	37.94	34.25	17.82	21.79	181.88	173.84	177.92
Latkipia - 514	4,190	-1,116	22.52	22-19	12.70	14.03	24.52	23.82	15.11	16,16	22.14	20.52	22.44	20.34	33.99	31.16	19.75	19.49	170.59	165.39	168.01
Kajiado - 515	3,445	2,645	24.35	24.79	15.15	16.84	27.22	27.65	15.63	16.87	23.76	21.66	23.80	21.70	37.80	34.48	22.66	22.18	186.09	182.21	184.40
Narok - 516	3,115	2,020	21.46	20.83	11.79	12.37	23.04	22.12=	12.20	12.77	22.81	19.79	22.02	19.28	34.94	30.98	15.87	17.70	165.12	154.66	161.00
Baringo 517	4,152	3,873	24.59	24.25	13.83	15.05	24.93	24.21	13.57	14.92	29.89	26.69	27.05	24.39	41.30	38.65	23.21	21.70	195.33	188.20	192.88
Кетун - 518	2,422	2,502	24 36	24.37	13.55	15 05	25.20	25.10	14-16	15.58	28.62	26.43	26.33	23.83	40.12	37.70	19.49	19.98	191.24	186.96	189.06
Frans Mara - 519	1,702	1,175	22 10	20.19	10.70	10 38	22.56	21.55	14.95	15.64	24.00	20.59	22.60	19.10	35.96	31.04	22.31	13.09	169.80	154.70	163.61
Marakwet - 520	2,204	1,972	.13.89	23/32	12 69	13.27	24.72	23.81	14.81	15.38	27.63	24.34	25.62	22.28	39.58	35.56	18.92	18 92	187.15	2 175.74	181.75
soybatek - 521	2,119	1,965	24.29	24.23	1.1.97	14.94	26.90	26.26	16.57	17.88	29.89	27.24	26.67	24.02	40.37	37.00	21.02	20.05	197.78	190.39	194.22
daret - 522	5,421	5,169	21 90	21.18	12.05	12.71	20.68	19 16	13.56	1-1.00	25.83	21.75	23.45	20.00	35.47	30.89	17.69	17.56	169.87	155.05	162.61
Sandi South 523	3,529	3,482	23.48	23/19	13.05	14_22	24.96	24.27	15.46	16.85	26.89	24.01	25.07	21.80	38.01	33.98	18.58	18.31	184.79	174.69	179.76
Fotal R/Yalley	82,730	<b>7</b> 5,172	2.1.005	22.70	12.86	13.77	24.53	23.79	14.71	15.72	22.68	24.21	21.23	36.92	33.14	20.22	7.5	179.68	168.69	174.91	179.70
WESTERN								_						·				117.00	100.05	1/4.7)	
Busia - 601	4,153	3,185	23.30	22 86	14.42	15.35	27.60	26.71	1-1.8-1	15.47	26.00	21.92	24.83	21.18	38.66	33.65	21.89	10.20	100.14		
lungoma - 602	11,421	10,644	22 95	22.72	14.34	15.56	26.38	25 57	15.22	16.64	26.64	22.54	24.75	21.64	36.65	32.33	20.38	18.28	188.16	173.66	181.84
Cakamega – 603	6,503	6.507	23.74	23.98	15.48	17.33	26.90	26.29	16.73	18.18	24.39	22.48	23.82	21.46	36.99	53.44	20.38	19.27	183.53	172.50	178.19
7thrga - 004	0,791	7,497	22.58	22.66	14.43	15.94	25.91	25.21	15.39	16.67	22.29	19.85	22.05	19.51	34.47	30785	19.02	19.83	185.88	179.51	182.69
lt Elgon - 605	1,828	1,518	22.06	21.40	14.32	15.07	25.12	24.08	15.85	16.60	24.32	20.80	23.50	20.27		+		18,81	174.47	166.87	170.48
esa i óllo	2,225	1,694	22.06	21 79	15 08	15.79	24.04	23.44	14 53	15.74	21.78	18 43		19.56	35.91		17.91	16.95	178.68	165.08	172.48
ugari - 607	2,529	2,752	23/36	23.28	15.38	16.70	28.39	27.11	17.34	18.57	24.09	21.26		21.13	37.20	30.70	19.41	17.43	172.34	161.09	167.48
lutere Alumnas -	5,921	4.704	24 04	23.86	17.20	18.24	28.46	27.32	18.72	19.32	26.03		1.0	21.13	37.20	32.54	18.82	18 31	189 03	177.12	182.80
08											-11.17.1	70	21.70	-1.31	.77.00	23,49	20.30	18.52	194.74	182.77	188.94

								R/	W MA	RKS ST	ATISTI	CS BY	GENDE	R	12.5		583		DISTRI	CT TOTAL	DISTRICT
PROVINCE	CANDII	DATURE	(	HASH OBJ (50)	ENGI COI	MP	KIS O: (5	BJ	KIS INS (4		MA' (5		SCIE (5		G1 (6	-	R (3	l	OVERA MEANS CENDE		TOTAL RAW MEANS
NYANZA	NΙ	F	M	F	M	$\lceil F \rceil$	M	F	M	F	M	F	М	F	M	F	М	F	M	F	
Kisumu District 701	2,339	1,825	23 54	23.35	14.76	16.11	19.73	20.71	12.47	14.35	26.85	23.62	25.27	21.97	36.88	32.70	22.75	17.87	176.42	168.58	172.97
Kismuu Munic — 702	3,118	2,661	25.14 	24.72	16.42	17.19	23.81	23.30	16 15	17.15	27.34	23.62	25.97	22.60	38.15	33.73	21.17	18.56	190.83	178.18	184.99
Kisa Central - 703	7,592	7,057	21.40	20.70	11.68	LL90	22.88	21.63	13.69	1-L17	22.89	19.98	21.47	18.80	32.92	28.59	17.50	17.77	163.11	15u.99	157.27
Homa Bay - 704	3,942	2,182	24.09	23.33	14.48	15.31	19.41	19.83	12.64	14 03	28.47	24.30	26.50	22.83	38.87	34.10	19.86	23.03	182.55	169.65	177.93
Saya - 705	5,937	4,771	24.17	23.65	16.27	17.08	22.63	22.36	15.09	15.86	27.78	24.70	25.69	22.05	57.39	32 63	17.76	18.69	186.53	173.75	180.81
Kan North - 706	8,018	7,475	21.76	31.19	13.09	13 50	23 00	22.18	13.86	14.82	24.03	21.22	21.92	19.31	33.44	29.44	18.87	17.33	167.67	157.23	162.63
Migori - 707	7,046	3,957	23.69	22 06	15 46	15.8-1	19 87	20.04	12.95	1-1.19	27 27	22.48	25 45	21.55	37.65	32.60	20.81	18.84	180.43	163.93	174.44
Kuria - 708	1,653	1,106	22.12	21.23	11 24	11.57	26.39	25 25	16.13	16.65	24.17	20.27	23.33	20.08	35.77	31.89	23.12	17.17	175.73	162.09	170.25
Suba 709	2,194	1,142	24.11	23.38	14 76	15.12	19.15	18 65	12.24	13.37	27.69	23.90	26.75	23.09	38.95	34.06	20 48	19.26	182.16	164.95	176.17
Rachuonyo - 710	5,060	3,437	23.76	22.76	1-1.83	14 68	19.19	18 93	13 09	<u></u> H.12	27.43	22.98	25.70	21.90	38.30	33.45	20.09	17.28	180.43	163.86	173.68
Ciucha - 711	7,277	0,336	21.33	20.49	11.89	12.07	22 57	21.28	13.91	14.58	23.24	20.06	21.79	18.83	33.42	28.91	17.14	16.23	164.13	151.09	158.05
Bondo - 712	3,099	2,291	24/24	23.45	15.76	16.25	19.07	19 53	13.74	1-1.72	28.90	2-1 84	26.44	22.44	37.98	32.63	21.01	18.26	183.50	169.11	177.35
Nyando (713	3,962	3,694	24.52	23.68	17.99	18 30	20 84	20.40	14.57	15.72	28 98	24.65	26.17	22.39	38.67	33.46	19.76	18.33	190.23	173.15	183.26
Total Nyanza	61,233	46,929	23.07	22.20	14.28	14.51	21.53	21.23	13.82	14.82	26.08	22.26	24.28	20.72	36.19	3'27	20.04	17.94	176.52	162.24	170.30
N/EASTERN						Į.												<del></del>	·		
Gantissa - 801	1,042	437	20.91	19.57	11.90	11.85	18.98	18.74	10.32	12 02	20.36	17.28	20.77	18.54	33.96	30.89	21.16	19.04	156.17	144.46	152.69
Wajii - 802	1,183	431	20.85	18 75	10.30	8.93	17.46	15.57	8.55	7.54	18 76	15.17	19.83	17.24	32.82	26.74	20.20	18.6-1	147.72	123.69	141 22
Mandera 803	1,147	283	21.45	19.10	12.40	11 03	16.25	15.11	7.64	6.86	20.00	15.88	21.26	(8.16	34.42	28.37	20.92	19.99	152.26	131.24	148.11
ljara - 804	138	27	20 50	19.18	10.47	9 48	17.18	16.62	11 67	10.81	19.96	17.44	21.60	17.59	34.03	31.44	20.08	19.39	153.31	141.88	151.46
Total N/Eastern	3,510	1,178	21.05	19.17	11.47	10.53	17.50	16.66	8.90	9.11	19,69	16.17	20.64	17.96	33.73	28.78	21.00	18.77	151.94	133.62	147.31
NATIONAL TOTALS	335,592	309,202	22 97	22.75	13.84	14.82	24.13	23.60	15 28	16.46	24.62	21.90	23.60	20.87	35.87	32.01	18.84	17 99	177.66	168.86	173.43

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### 11.0: S UMMARY OF YEAR 2003 KCPE PERFORMANCE STATISTICS RAW MEANS BY DISTRICT, PROVINCE & BY GENDER

								RAW N	JARKS	STATI	STICS	BY GE	NDER						DISTRICT		DISTRICT
PROVINCE	CANDIF	ATURE	ENG OI (5	BJ	ENG CO	MP	KIS OBJ (5		KIS INS (4	IIA	MA'		SCIEN			IC (0)	R (3		OVERALL MEANS BY GENDER		TOTAL RAW MEANS
COAST	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	М	F	
Taita Taveta – 101	2931	2805	22 60	22.78	10 75	11.63	34.86	35 24	16.67	17.91	21.19	19.38	22.31	19.22	34.36	31.17	18.22	17.40	178.72	173.10	175 97
Kılifi – 102	4462	2724	23.07	21.95	12.22	11.98	37.76	37.14	18.78	19.04	24.30	20.97	24.48	20.37	36.37	31.49	18.21	17.36	193.51	179.32	188.13
Tana River - 103	75%	467	20 5 1	19.80	9.72	9 84	31.92	32.05	15 58	16.33	19.28	16.82	20.57	17.48	32.60	28.06	17.47	16.50	167.04	156.49	163.02
Lamu – 104	700	583	21.64	20.95	10.80	10.99	34.79	33.73	17.09	17.94	21.41	18.48	22.54	19.05	34.35	29 26	17.95	16.77	180.25	166.56	174.03
Kwale – 105	3580	2517	20.52	19.56	10.06	9 68	35.52	34 84	17.14	17.30	20.84	17.70	21.84	18.43	33.03	28,55	16.50	15.89	175.38	161.43	169.62
Mombasa – 106	3888	3601	25.73	25.86	14.24	15 31	35 30	35 22	18.91	19 84	23.67	21.98	22.83	20.40	35.40	32.24	17.85	18.81	193.04	187.31	190.28
Malındi – 107	2046	1145	21.90	20 99	12.79	12.17	36.87	36.37	18.38	18 47	22.36	19.71	23.23	19.75	35.21	30.93	17.60	17.17	186.82	174.11	182.26
Total Coast	18,365	13,8-12	22.77	22.50	11.89	12.26	35.88	35.46	17.91	18.52	22.46	19.97	22.90	19.59	34.83	30.83	17.12	17.99	185.17	175,15	180.86
CENTRAL.						<u> </u>					<u> </u>										
Nyandarua - 201	6821	7193	22.51	21.79	11.05	11 59	30.42	29.27	15 84	16 76	22.08	19.94	21.85	18.87	33.49	29.90	17.43	16.25	172.17	162.21	167.05
Nyen - 202	9806	10,600	23.36	23.42	12.25	13.74	29.06	28 69	16.00	17.54	22.75	21.67	22.38	20.03	34.19	31.71	17.53	17.69	176.70	173.04	174.80
Kumyaga – 203	5497	57.63	23 61	23.50	13.65	14 62	30 41	29.47	17.32	18 43	23.70	21.22	24.26	20.70	35.68	32.05	18.05	17.69	185.60	175.21	180.28
Murjang'a - 204	5129	5721	21.65	21.47	11.43	12.37	28.27	27.69	16.19	17.55	23.34	21.40	22.66	19.79	33.94	30.71	14.85	16.37	174.07	166.35	170.00
Kiambn – 205	7949	8402	23.27	23.41	12.60	13.83	28.80	28.67	15.22	16 57	21.50	19.94	20.73	18.48	32.79	30.02	15.61	15.48	170.04	165.88	167.91
Thika Mnep = 206	774	831	26.87	27.60	13.77	16.12	32.95	32.85	18.29	19.79	23.64	22 98	23.58	21.41	36.59	34.31	17.99	17.88	191.21	₹90.33	190.74
Thika\Dstr - 207	6365	06-19	22 45	मानम	12.08	12.72	29.35	28.04	16.72	16.73	21.79	19.51	21.63	18.51	33.68	29.69	16.04	15.33	173.71	162.34	167.90
Maragua – 208	5826-	5789	20.23	1951	11.03	11.45	27.18	25.78	15.99	17.01	21.98	19.45	20.72	17.74	32.36	28.39	21.11	19.73	164.82	153.14	159.00
Total Central	48,167	50,998	22.63	22.35	12.06	13.05	29.15	28.40	16.15	17.38	22.42	20.55	22.00	19.23	33.76	30.51	16.96	16.57	174.09	166.47	170.18

PROVINCE	CANDII	DATURE						RAWI	MARKS	SSTATI	ISTICS	BY GE	NDER						DISTRICT OVERALL		DISTRICT TOTAL RAW
1			O	BLISH BJ	CO		l oi		INS.	SWA SIIA)	MA	Ì	SCIEN			HC (a)		RE	MEANS BY GENDER	Y	MEANS
EASTERN	M	F	VI	50)   F	M	(0)   F	M	50) F	M	10) F	M	(0) F	M	60)   F	M	50)   F	M	30) F	M	F	<del>                                     </del>
Machakos –301	12.792	13 473	22 04	21.72	11.95	12.72	30.28	29.86	16 84	17.90	22.39	20.01	22.45	19.58	34.85	31 59	17.16	17.77	177.03	169.08	172.95
Kum -302	7056	7113	20.28	19 86	10:17	10.72	28.58	27.87	15 83	16 78	22.19	19 62	21 62	18.89	33.39	29.88	17.28	16 87	167 71	158.05	162.86
Emba 303	3143	. 820	23 48	23 86	12 12	14 04	30.27	30 19	15.91	17 27	22.19	20.15	22.56	19 67	34.69	31.74	19.12	18.46	178.32	173 90	175 90
Meru Cutil =304	5616	6318	22 12	22 09	10 05	11 41	29.33	28 59	15 46	17.06	20.47	19 06	21.31	18.90	32.70	30.10	19.00	16 96	167.14	162.35	164 61
Marsabit – 305	673	349	24 84	22 72	13 99	12.41	30.78	27,88	19 (N	17 95	27.01	21 0-1	25.43	21.34	39.76	34.64	19.41	17.96	197.28	172.64	188 86
Isiolo – 30o	761	560	23.82	22 86	1141	11 19	30 10	29.76	1940	1907	22.64	19.49	22.81	19 95	37.02	32 59	18.85	17.78	184.15	171.78	178 90
Makuem – 307	10,511	11 330	23.50	22.91	14.12	14 64	31 94	31 03	19.77	20.57	25.25	22.79	24.86	21.83	37.23	34.13	18.69	18.82	193.71	184.02	188 68
Meni Sth – 308	2522	2817	23.58	23.92	12.26	13 89	30.55	29.93	17.36	1910	21.71	20.17	22 49	19.85	34.31	31.27	16.97	16.78	178.19	174.26	176 12
Meni Nth - 309	4118	5042	21.37	20.31	10.43	10.88	30.62	28.39	15 61	16.31	21 10	18.27	21.96	18.87	3-1.39	29.91	13.78	15.69		156 48	162 88
Mwingi - 310	3157	3369	20 16	19 88	11.93	12 59	29 54	28.82	15 88	17 17	22.12	19.29	2241	19.30	34.48	30 23	17.68	16.53		161 83	166.71
Moyale -311	544	275	21 18	18.91	9.52	7.58	24.21	21.08	14 00	12 28	22.90	18.84	22 89	19.15	37 57	31.64	18.06	15.73	167.22	142.61	158 96
Mbeere -312	2072	2,356	21 81	21 37	12 03	12.46	29 70	28.84	16 84	17.70	2161	19,07	22.39	1945	34.35	30.83	17.18	20 51	174.11	164 93	169 22
Tharaka -313	954	1007	22 65	22 05	31 69	12.26	32.51	30.69	17 05	18.19	25 15		24.42	20.95	37.62	32.67	17.54	16.92		174,03	181.06
Total Eastern	53,919	57,829	22.15	21.78	11.88	12.63	30.24	29.46	16.99	18.01	22.65		22.74	19.83		31.50	19.94	16.86		168.80	173.11
	ļ	<sup>'</sup>		-	\ <u></u> '	<u> </u>			-		<del></del>				+				+	1	1
NAIROBI	10,818	11 031	27 71	28.17	15.89	17.52	32.09	32.42	17 70	19 13	23 79	22 67	22.65	20.39	35.69	33 20	17.36	16.87	191.26	189 13	190 19
RIFT VALLEY		702		1333	12.00	13.12	31.05	31.22	-		1					'					
Turkana – 501	1,301	703	23 45	22 32	13.19	1242	31 95	31.23	16.41	16 63	26.68		25.86	22.19	40.95	36.53	19.84	17.53	194.86	177 52	188.77
Samburu – 502	854	1+1	21 95	21 94	11.10	<u> </u>	29 26		14 50	10.45	22.52	19.63	23.07	20.00	37.69	32.73	18.93	18:19	175.52	169.02	173.30
Ti/Nzora = 503	5297	5046	21 27	20.72	10.27	10 92	33 16	32.31	15 79	17 06	22.71	19.67	22.49	19.00	35 74	31.02	16 44	14 17	177.42	164.82	171 27
Kitale Mnc – 504	706	795	25.37	25 28	12.91	13.66		34.23	17.57	19.25	23.91	21.23	24.20	20.79	37.45	33.53	19.21	17.06	192.02	182.34	187.09
West Pokot = 505	2048	<u> </u>	21 76	<u> </u>	11.39	11.93			14 92				24.52	21.39	38.91	34.52	17.62	17 49	183.37	174.82	179.82
Nakuni Mnc – 506	2130	1940	25 73	25 39	14 40	15.22	32 65	32 35	17.91	19 19	22.54	20.30	22.08	19.15	35 57	31.71	19 94	18.21	186.75	178.80	182.96

								RAW N	IARKS	STATI	STICS	BY GE	NDER						DISTRICT		DISTRICT
PROVINCE:	CANDIL	DATURE	ENG		ENGI	L	KIS' OI	t t	KIS'		MΛΊ	'HS	SCIEN	27	GII	85.5	R	i	OVERALL MEANS BY		TOTAL RAW MEANS
			(5	0)	(-10	))	(5)		(-	<del></del>	(50		(5)		(60		(3		GENDER	F	<b> </b>
RVALLEŸ	M	F	NI	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	70	
Bornet – 50s	5271	4 720	21 33	20 17	10.49	10.79	23 76	22 08	13.18	14.17	25 63	22 45	23.53	20.12	35 71	31.23	16.32	15.73	169.47	155 67	162 81
Uasin Gishu – 509	49Al6	4782	22 94	23 20	11 63	12 93	31 78	31 62	15 88	17 95	25.77	22.51	24.11	20 61	37.92	33 91	17.30	16 66	186 90	178 56	182.70
Nakuru Dstr – 511	11,110	10,676	22.74	21.88	1240	13 01	32.16	31 03	17 17	18.02	23 03	20 00	22.36	18 93	35.07	30.87	18.35	13.72	180.93	168 45	174 82
Kencho – 512	GU13	5542	22 76	22 08	11 44	12 01	28 65	27 28	15.35	16.52	25.44	22.00	23.88	20.18	37.13	32.51	18 06	16.94	181.58	167.89	175.07
Nanor - 513	6980	7:41	22 83	22.56	11.74	12.81	30 37	29.90	15 98	17.60	25.76	22.44	24.34	20.71	37.71	33.18	17.74	15.59	185.32	174.24	179 76
Laikipia – 514	1874	3310	22.71	22 66	12.28	13 29	31 15	30.31	16 42	17.35	21.37	19.33	21.93	19.11	34.16	30.42	19.14	18 87	176.33	167,82	172.11
Kajiado - 515	3026	2 491	24.33	25.06	13 68	15.33	33 62	34.48	17.54	18 40	22.76	20.53	22.71	20.03	36.71	33.07	20.02	19.33	187.69	183.27	185 69
Narok - 510	2530	1716	21 01	20.30	11.13	11 44	27 92	27.11	15 57	16 22	22.08	19.13	21.57	18.55	34.99	30.32	19 01	15.69	169.47	157.93	104.81
Barmgo – 517	3992	3916	23 94	23.85	12.93	13.93	31 02	30 57	16 13	17 37	27.96	25.00	26.47	23.61	40.60	37.28	18 46	18.46	196.85	189.40	193.16
Keiyo = 518	2272	2423	23 79	23 85	12.58	14 07	31 27	31 13	16 18	18 06	27 42	24 17	25.86	22.76	39.80	36.14	18 08	18 16	193.86	187.16	180 41
Trans Maras 519	1426	1013	20 61	1942	10 47	10.83	27 29	26 21	15 15	15.98	22.70	19 16	22.02	18 20	35.25	29 64	16.01	17 15	168.70	153 19	162 26
Maral, vet = 520	2003	1870	21.73	21 14	12 04	12.38	29.81	29.39	15 98	17.50	26 06	23.08	24.37	20 92	38.61	34.44	17.37	17 20	185.82	174 39	180 39
Korbarek 521	2049	2056	23.41	23.35	13.11	14 39	32 61	32 52	17.33	19 29	27 53	24 80	25 4 t	22 30	39 42	35.97	17.98	18 04	195.95	189 70	192 82
Buret + 522	4584	4620	21 27	20.38	11.18	1164	25 25	23.47	14 52	15 57	24 25	20.86	22 61	19.04	35.18	30 57	16.40	15 83	169 94	155.60	162 74
Total R/Valley	74,113	68,925	22.67	22.27	11.91	12.69	30.32	29 61	15.98	17.25	24.50	21.53	23.48	20.17	36.76	32.54	18.02	16.71	181.93	17132	176.81
WESTERN			<del>                                     </del>										<u>}                                    </u>	<u> </u>		<u> </u>					
Busia - 601	3514	2771	23 00	22 88	1176	12 39	34.23	13.78	17 22	18 16	24.51	21,21	24.23	20.45	38.04	32.78	17.82	16.58	190.50	177 37	184 71
Bungoma – 602	9844	9624	21 50	21 09	11 20	11 72	32 07	31.33	15.98	17 18	24 26	20.84	23.37	19.66	36.70	31.98	19 07	17 42	181.60	168.51	175.13
Kakamega 603	5575	6033	22 78	22.82	12.16	13.52	33 15	32 68	17 47	19 17	23.01	20.92	23.48	20.41	36 67	32.40	17.96	17 56	185.84	177 87	181 70
Viluga - 604	5881	6800	22.37	22 05	11.96	12 94	31:57	30.73	17.68	18.79	21.07	18.63	21.91	18.87	34.57	30 15	17 98	17 42	177.83	167.89	172.50
Mt. Elgon – 605	1579	1289	20 29	1987	10.50	11 22	30.90	30.23	15 90	16 83	22.81	19 72	22.10	18.46	35 84	30 98	16 49	15 84	174.12	161.05	168 25
Teso - 600	1846	1407	20 82	21.06	11 72	12.71	29.50	29.58	1609	17 59	20.74	18.08	22.16	19.01	35.23	30.70	17.59	16.56	172.77	164 27	169 09
Lugar - 607	2246	2318	22.74	22.80	12 01	13.23	34 48	34.20	17 94	19,43	23.05	20.65	23.33	19.99	36 62	32.22	18.38	17.67	187.54	178 48	182 94
Butere Mumias - 608	4175	1159	23.55	23 09	13 72	14.42	34 40	33.35	18 94	19 88	24 36	20 98	24.12	20.26	36.91	31 96	1881	17-48	192 65	179.24	185 96
Total Western	3-1,660	34,401	22.25	22.04	11.91	12.78	32.63	31.97	17.12	18.41	2,1.22	20.29	21.19	19.72	.16.17	11.68	18.18	17.07	INLES !	172.20	177.88

Approved to the second 
DDAWINGE	CANDII	DATURE			<del> </del> -		1		MARK!		ISTICS	BY G	ENDER						DISTRICT	TOTAL	DISTRICT
PROVINCE		MORE		ilish Bj		LISH		SWA		WA	MA	THS	SCIE	NCE	G	HC	I	Œ	OVERALI		TOTAL RAW
			I	io) ioj	1	MP	1	BJ		HA)	l			<b></b>					MEANS B	Y	MEANS
NYANZA	ΛI	F	M	F	- N	10)   <i>F</i>	M	50)   F	<u>-м'</u>	40 		50)		50)	_	<u>60)</u>		30)	GENDER		
		ļ		88		<u> </u>		<u>  ''                                  </u>	IVI	P	M	F	M	$\mid F \mid$	M	F	M	F	M	F	
Kisumu District – 701	2166	1712	23.03	22.81	11.20	11.95	23.56	24.00	14.92	16.24	24.67	21.57	23.83	19.84	36.67	31.73	16.76	16.19	173.83	161.50	168.39
Kisuma Munic. – 702	2827	2440	26.42	25.58	13.21	13.53	28.76	28.13	16.66	17.44	26.08	22.13	25.08	20.86	38.06	33.26	18.40	17.53	191.56	175.79	184.26
Kisa Central-703	6939	6293	20.67	19.88	9.32	9.54	27.48	26.16	14.18	15.20	21.63	18.79	20.79	18.63	32.83	28.62	17.46	15.86	162.50	150.61	156.85
Homa Bay – 704	3522	2096	23.26	22.54	12.40	12.84	22.85	23.19	12.96	14.39	26.64	22.45	25.13	20.91	37.90	32.50	18.24	16.87	177.80	161.75	171.81
Siaya - 705	5592	4547	24.33	23.64	12.78	13.18	27.26	26.80	16.26	17.08	25.51	22.32	24.94	20.90	37.09	31.61	18.28	16.37	184.84	170.09	178.23
Kisii North - 706	7628	6960	20.69	19.98	9.89	10.20	27.08	26.11	14.54	15.68	22.28	19.64	20.89	18.01	32.95	28.44	15.95	16.69	163.47	152.38	158.18
Migori – 707	6478	3694	22.54	21.80	11.52	11.78	23.46	23.64	13.53	14.92	25.34	21.08	24.15	20.08	36.62	31.64	17.34	16.75	173.59	158.04	167.95
Кина – 708	1516	978	20.98	19.73	10.20	9.71	33.22	31.36	15.34	16.04	23.00	18.95	22.24	18.53	35.38	30.02	19.13	15.83	176.01	157.76	168.86
Sulia 709	1856	1049	23.60	22.67	11.09	11.05	22.61	22.62	12.66	13 62	26.00	22.35	25.47	21.49	38.65	33.87	17.67	16.99	176.36	160.62	170.68
Rachnony = 710	4417	2925	23.31	22.05	11.78	11.80	22,93	22.36	12.94	13.89	26.38	21.84	25.25	20.76	38.29	32.86	18.38	16.96	177.10	159.18	169.96
Gucha - 711	6728	5804	20 31	19.32	9.35	9.29	27.43	25.87	13.88	14.55	22.06	19 08	20.86	18.08	33.18	29.17	16.22	15.45	162.01	149.00	155,99
Bondo - 712	2874	2153	23.76	23 07	12.18	12.79	22.68	22.88	14 07	15.37	27.32	23.28	25.85	21.40	37.65	32.19	17.35	16.55	179.77	164.53	173.24
Nyanda – 71 i	3573	2709	24.29	23.16	14.21	14.48	24.84	24.38	14.42	15.22	27.01	22.86	25.20	20.91	38.27	32.69	18.06	17.19	185.45	167.45	177.69
Total Nyanza	56,116	43,360	22.46	21.51	11.20	11.32	25.78	25.36	14.30	15.40	24.43	20.77	23.30	19.50	35.76	30.67	17.17	16.65	173.26	158.47	166.81
N/EASTERN					'															<del> </del>	
Garrissa – 801	1036	434	18.63	17.56	8.50	7.93	21.81	21.16	11.89	12.77	17.49	15.54	19.10	17.28	31.45	27.60	17.74	16.17	144.35	134.88	141.55
Wajii - 802	1066	431	18.60	16.76	9.31	7.64	19.88	17.07	11.15	9.58	16.65	13.49	18.70	15.95	31.36	25.93	18.18	16.03	142.47	121.35	136.39
Mandera – 803	1197	360	19.22	17.18	8.34	6.61	18.27	16.26	10.10	8.81	17.01	14.10	18.40	15.36	31.29	25.39	18.07	15.78	139.68	118.53	134.79
ljara – SU4	95	26	18.84	17.69	7.27	7.46	21.45	20,30	12.19	11.34	18.47	15 46	19.55	20.00	31.45	29.19	17.37	16.84	146.41	138.30	1.34.79
Potal N/Eastern	3394	1251	18.83	17.18	8.66	7.44	19.94	18.32	11.03	10.50	17.08	14.42	18.74	16.32	31.37	26.42	17.89	16.00	142.17	125.58	137.70
																			- 74(4)	140.00	137.70
NATIONAL TOTALS	299552	281637	22.62	22.26	11.90	12.69	29.82	29.3-1	16.13	17.39	23.44	20.75	22.92	19.73	35.50	31.48	16.79	17.07	178.55	168.74	173.80

### 2006-2007 Project Time Schedule

Activities	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July
									-			
Back-												1
Ground												
Literature												
review												
Research							¥.					
Analysis												L

Table A-Shade represents activity taking place in respective month

Appendix 6 TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN POPULATION

N	S	N	S	N	5 >
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	2.090	322
55	48	320	175	2.200	327
60	52	340	181	2,400	33!
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
180 190 200 210	118 123 127 132 136	850 900 950 1,000 1,000	265 269 274 278 285	30,000 40,000 50,000 50,000 100,000384	379 380 381 382

N is Population size, S is Sample size.

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

### MINISTRY OF SCIENCE AND TECHNOLOGY

Telegram: SCIENCE TECH", Nairobi

Telephone: Nairobi 318581 Email:psmst a education co.ke When replying please quote

Ref.No: MOST 13/37C 401/2



JOGOO HOUSE "B" HARAMBEE AVENUE P.O. BOX 9583-00200 NAIROBI

4th JULY 2007

Ezekiel Mwangi Waithaka University of Nairobi P.O. Box 30197 NAIROBI

Dear Sir

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on, 'Factors Affecting the Implementation of Free Primary Education in Public Primary Schools in Rumuruti Zone, Laikipia District'

I am pleased to inform you that you have been authorized to carry out research in Laikipia District for a period ending 30th August 2007.

You are advised to report to the District Commissioner and the District Education Officer Laikipia District before embarking on your research project.

On completion of your research, you are expected to submit two copies of your research report to this office.

Yours faithfully

M. O. ONDIEKI

FOR: PERMANENT SECRETARY

Copy to:

The District Commissioner Laikipia District

The District Education Officer Laikipia District