EXTENT OF UTILIZATION OF EDUCATION COMMISSIONS' RECOMMENDATIONS IN PLANNING QUALITY EDUCATION IN PRIMARY SCHOOLS IN KENYA (1988 TO 2009)

By

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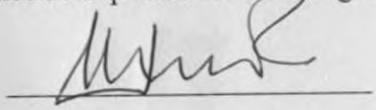
DECLARATION

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



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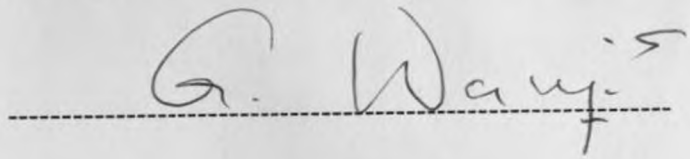

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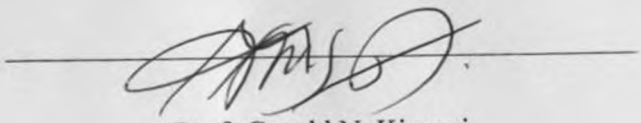

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DEDICATION

This research is dedicated to my wife Dorice and children Jared, Richard, Kelvin, Billy and Sarah

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LIST OF ABBREVIATIONS AND ACRONYMS

BERC	Basic Education Research Center
BPR	Book : Pupil Ratio
CDF	Constituency Development Fund
DFID	Department for International Development
ECDE	Early Childhood Development and Education centre
EFA	Education For All
EMC	Education Management Course
FPE	Free primary education
GER	Gross Enrolment Rates
H/Ts	Head Teachers

IEA	International Association for Evaluation of education Achievement
IIEP	International Institute of Educational Planning
ILO	International Labor Organization
IPAR	Institute of Policy and Research
KIPPRA	Kenya Institute for Public Policy Research and Analysis
KRTs	Key Research Teachers
MOE	Ministry Of Education
NET	Net Enrolment Rates
OCED	Organization of Countries in Education Development
PISA	Program for International Student Assessment
PTR	Pupil : Teacher Ratio
ROK	Republic of Kenya
SbTD	School based Teacher Development
SIF	School Infrastructure Fund
SMC	School Management Committee
SPHs	Subject Panel Heads

SPSS Statistical Package of Social Sciences

TAC Tutor Teacher Advisory Centre Tutor

UPE Universal Primary Education

ABSTRACT

Planning depends largely on proper identification of the educational needs a task achieved through baseline studies. Kenya has used education commissions and task forces in the baseline studies to inform on needs in education development. This study set out to examine how the recommendations made from education commissions; the Presidential Working Party on Education and Manpower Training for the Next Decade and Beyond (Kamunge) and the Commission of Inquiry into Education System of Kenya (Koech) have been utilized in planning for quality education at primary school level in Kenya.

The study was guided by four objectives and four research questions. Descriptive survey research design was used. The study targeted all primary schools registered by the Kenya national examination council for KCPE examination in 2006. A sample size of 196 primary schools served as the respondent units represented by the head teachers and five subject panel heads. The research instruments used for data collection included document analysis, questionnaires, and observation check list and interview. The instruments yielded both qualitative and quantitative data.

The themes for qualitative data analysis were based on the research questions and recommendations of the two education commission reports. Quantitative data was analyzed by using descriptive and inferential statistics for each objective obtained using SPSS computer package.

The findings from the study are;

1. recommendations of the two education commissions have formed the basis of educational planning and development in Kenya since 1987,

2. .the government has taken a leading role in the supply of teaching-learning resource materials in primary schools to improve quality of education at this level,

3. the contribution of parents in the provision of teaching-learning resources has decreased since 2003 after the inception of free primary education, primary schools are inadequately staffed,

4. cost-effectiveness measures suggested by the two education commissions are not yielding the anticipated results,

5. the key resource teachers are not assisting in the curriculum implementation as earlier planned,

Based on the findings, the study recommends that;

a. government alleviate the problem of understaffing in schools,

b. parents and communities should be educated on their role and contribution to supplement government efforts towards offering and improving quality education in primary schools,

c. refresher courses should be mounted for practicing teachers at regular intervals to help them cope with emerging issues that affect quality education,

d. integrated teaching where impaired children learn together with regular children in regular classrooms and schools should be supported with appropriate resource allocations and

e. teachers who went through the SbTD programme should be examined for appropriate certification to motivate them to help in in-servicing their teacher clleaques at school level.

The suggestions for further research are;

i.A similar study be carried out to determine the implementation of education commissions' recommendations at other levels of education on the quality of the education offered,

ii. a follow up study to this should be done to determine the implementation of training needs of primary school teachers identified by education commissions and

iii. a study be carried out to establish the definite content overlaps in the subjects at the primary school level as a measure to improve on quality education.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Education has been acknowledged at various fora as a cornerstone for economic and social development. Education improves the productive capacity of societies and their political, economic and scientific institutions. It also helps in reducing poverty by mitigating its effects on population, crime rate, participation in politics, health and nutrition and by increasing the value of and efficiency of the labour offered by the poor which is the only production factor available to them. Among developing countries, education also acts as a means of redistributing wealth and the scarce resources (Lockheed, Verspoor and associates 1991, Khatete, 2002).

Countries and groups with low education levels are likely to miss out on the gains made possible by technological innovations and new production processes. Technological innovations are transforming economies world wide at a very high rate causing a constant demand for new methods of production that depend on a well trained, informed and intellectually flexible labour force. Therefore, the future development of the world and of individual nations hinges more than ever on the capacity of individuals and countries to acquire, adapt and advance knowledge for its labour force

(Lockheed, Verspoor and associates 1991).

Primary education being the foundation in the education milestone process is expected to play a leading role in this endeavor. Education at this level must serve two main purposes: to produce literate and numerate populations with good communication and problem solving skills respectively and to serve as a foundation on which further education is built (Lockheed, Verspoor and associates 1991). Therefore to move forward, all developing countries must improve the education and training of their labour force. This will be made possible by ensuring that advanced education and training of the labour force rests on a solid foundation of primary school education.

The first priority for primary education then should be to increase the children's learning in school so that most of them master the curriculum and complete primary school cycle. This will help them function and remain relevant in the ever changing word. The second priority should be on access to primary education. Access to school must be provided for all school age children. These two goals are equally important. School attendance without learning is meaningless whereas development opportunities may be lost when a large fraction of the school age population has no access to schooling. Some of the causes of lack of access to education are; high cost of schooling, lack of enough schools, poor distribution of schools that make children walk long distances to and from school, poor

curriculum, cultural factors, poor government policies (Ishumi 1994).

Costs in education have remained single factors that affect progression of children from primary to secondary schools. A study by World Bank on the level of contribution of households towards meeting education of their children revealed that, households meet only 20 percent and 8 percent of primary and university education costs whereas they shoulder approximately 60 percent of secondary education costs (World Bank 2005). The high costs of the secondary school education to the households have hindered children in sub-Saharan Africa to access secondary school education (Ibid). Primary school education therefore remains the only formal education level that large populations of the developing world receive in their life time. Education at this level therefore needs to be well planned to benefit them. However this cannot effectively be done if the factors to be considered in the planning are not known. Many nations of the world use education commissions in their baseline studies to do this.

Thus, education commissions are used to establish the needs and other pertinent issues whenever there are fundamental problems associated with education. The findings from such studies may become a basis in the process of educational planning. Education as a social service competes with other sectors for the limited resources and it is therefore important that its quality is maintained. The other concerns about quality stem from the fact that education is a life long investment

to equip the learners with knowledge and skills and it takes long periods of time and processes to build an individuals' profile.

The indicators of quality education as discussed by Beeby (1969) include scores in examinations or scores in standardized tests. If the scores in such tests are persistently low, then there is low quality and where they are high there is an association of high quality. The other indicators of quality education are: type of curriculum offered, training level of the teachers, the preparedness of the learners and the adequacy of the teaching-learning resource materials found in schools.

The level of quality education received by learners can be indicated by the percentage of adult literates, percentage of women and girls educated in the population, the number of books and newspapers in circulation within a certain period. However, crucial to quality education are the indirect indicators of wastage in education system from dropouts and low completion and transition rates between grades. Indicators observed on low quality education may become a source of concern for an education commission to be established. The education commissions normally assist in finding out how an education system performs as well as suggesting the likely improvements on it.

Many nations have used education commissions to identify factors that affect quality of education. For example in Thailand, the government used a three man

education commissions' recommendations to make the distribution of quality primary schooling a top priority in the country's third Five-year plan. The Thai government realized from this education commission that quality of education offered at this level partly accounted for the effectiveness and efficiency of higher education and the rate at which the nation developed. In Chile, an education commission was used to analyze the needs for educational reforms including offering of free primary education and extending the basic education from six years to nine years (Russell, 1980). Other countries include Papua New Guinea (McKinnon, 1973). Primary schooling play crucial role in preparing young people for higher levels of education and their future roles in nation building (Balankura, 1979).

In Kenya, several education commissions have been set up right from the time of colonial period. The first one was the Report on Education in the East African Protectorate (Fraser Report 1909). The others were; East African Protectorate Education Commission of 1919, Report of the Committee on African Education in Kenya (Beecher Report 1949) and The African Education Commission (Binns Report 1952). These were all set up during the colonial era by the government to address issues in education (Sheffield, 1973). Even after independence in 1963 the first assignment by the government was to enact an education commission to help tailor education for economic development. The Kenya Education Commission (Ominde report) is the first post independence education commission

in Kenya whose report was given in 1964 (ROK, 1964). However, there continued to be a concern on the quality of education provided both during the colonial government and independent Kenya. These concerns were raised in various fora among them, the 1961 Addis Ababa, Ethiopia conference and the Tananarive Conference of 1962 both sponsored jointly by the United Nations Education, Science and Cultural Organization (UNESCO) and the United Nations Economic Commission for Africa (UNECA).

At the Addis Ababa conference, Universal Primary Education (UPE) by 1980 for all African member states was declared. At the Tananarive conference, the major concern was about the inadequacy of education for preparing manpower for economic and social development (Otiende, Wamahiu and Karugu, 1992). The other concerns have severally been raised at different fora by different people. For example Aduda while commenting on the quality of education under the Free Primary Education (FPE) made the following comments;

> '...a year of implementation for free primary education has brought to the fore several challenges, some never anticipated. Some of the glowing challenges are teacher shortage, inadequate classrooms and desks, indiscipline and lack of effective inspection,' Aduda (Daily Nation, April,

5th, 2005).

All these concerns touch on the issues of planning education.

Apart from the Kenya education commission of 1964, the independent Kenya government has established well over nine education commissions and presidential working parties to help improve its education among them; National Committee on Educational Objectives and Policies (ROK, the Gachathi Report, 1976), the Presidential Working Party on the Second University in Kenya (ROK, the Mackay Report, 1981), the Presidential Working Party on Education and Manpower Training for the Next Decade and Beyond (ROK, the Kamunge Report, 1988) and the Commission of Inquiry into the Education System of Kenya (ROK, the Koech Report, 1999). The study therefore sought to establish the extent to which the recommendations from some of these education commissions have been utilized in improving the quality of education at primary school sub sector specifically the commissions established from 1987 to the present. These are Presidential Working Party on Education and Manpower Training for the Next Decade and Beyond here referred to as Kamunge Commission and the Commission of Inquiry into the Education System of Kenya here referred to as Koech Commission of 1988 and 1999 respectively. The two commissions made recommendations to address the issues of access, relevance and quality of education at primary level.

The Kamunge Commission recommended among others an improvement on access and retention of children in education system by requiring that all parents with children of school going age to send such children to school and retain them there for the whole duration of primary education, an investigation into the causes and extent of primary school drop-outs and repeaters with a view to improving the cost-effectiveness in the provision of education, parents who send their children to boarding primary schools to pay for the full cost of boarding and feeding, the government to continue to meet the cost of boarding in arid and semi-arid districts and to review such maintenance periodically. The other recommendations were; the primary school curriculum be reviewed to allow for options in vocational subjects and more time to cover the curriculum content more effectively, primary schools be provided with adequate science facilities, equipment and materials for effective teaching of science, local communities and parents associations be encouraged to provide primary schools with libraries and adequate reading materials, local craftsmen be utilized to teach vocational subjects in the upper primary classes, a crash programme be instituted to train teachers for vocational subjects in primary schools and teachers of upper primary classes be assigned to teach only those subjects they studied and passed in the 'O' level Kenya Certificate of Education or equivalent (ROK, 1988).

The Koech Commission on the other hand, recommended among others that; Basic Education be declared compulsory and ways be found for providing

subsidized education for the poor marginalized groups, a supply of well qualified and highly motivated teaching force at all levels, provision of quality and adequate teaching-learning resource materials at all levels, regular in-service programmes for primary school teachers on pedagogical skills and management and administration courses for primary school head teachers as frontline quality control managers in their schools and, a restructuring of the primary school curriculum with a view to removing all the un-necessary overlaps across subjects and making the syllabi of all subjects manageable.

Other recommendations are; mechanisms be found for the provision of Basic Education for all and strengthening of coordination in mobilizing and encouraging education providers, Early Childhood Care Development and Education (ECCDE), the active involvement of parents and communities in the management of schools to ensure the elimination of conflict between school and home values and practices, government ensures that female teachers are deployed evenly throughout the country to ensure that girls in schools have appropriate role models and that selection of children for integrated programmes be based on proper educational assessment to determine the ability of such children to cope with rigours of integration, and that only those children who require minimal assistance be integrated with appropriate personnel, assistive learning/teaching aids, and equipment into regular schools (ROK, 1999).

Whereas Kamunge commission report was adopted by the government through sessional paper No. 1 of 1988 with most of its recommendations implemented, Koech commission has no sessional paper though some of its recommendations have been implemented and incorporated into developing education. Following the implementation of these commissions' recommendations Gross Enrolment Ratio (GER) at primary school level peaked during the early 1990s to stand at 105.4% but declined to 87.6% in 2002. However following the implementation of Free Primary Education (FPE) in 2003, there was an upsurge in enrollment in public primary schools, resulting in a GER of 99% in 2003 (ROK, Sessional Paper No. 1 of 2005).

Provision of quality relevant and equitable education to the increasing number of children is both a challenge and an opportunity for Kenya. It is a challenge because of the persistent discrepancy between the rate of economic growth, which limits the government's budgetary allocation to meet the growing demand for education, and that of population increase. This attempt to increase the number of learners at the various levels of education has sometimes compromised the quality of education. It is an opportunity because the goals of development in Kenya especially that of industrialization by 2020 and realization of vision 2030 demand that the nation urgently puts into place opportunities for acquisition of human knowledge and skills that will lead to achievement of such goals including Millennium Development Goals (MDGs) and Education For All (EFA) by 2015.

There is therefore continued concern about quality of education being offered at primary school level in Kenya to meet these challenges (Bwonda and Njeru, 2005). What input then have these two commissions' recommendations made towards planning for quality education at primary school level?

1.2 The statement of the problem

Education commissions are used in the baseline studies to provide valid and reliable data to inform planning for implementation of quality education at all levels of education including primary school level. The planning process involves identification of the input combination ratios and the ultimate outputs and outcomes. The inputs into education include; teaching-learning resources and the characteristics of the teachers which include; qualifications and their motivational level. The other inputs are, the quantity and quality of the physical facilities, buildings, laboratories, libraries, workshops, playing fields, the curriculum being offered, and time dedicated to each item in the curriculum, the distance that a pupil must travel to and from school.

The outputs may include pupil scores in examinations, the acquisition of knowledge, skills and attitudes towards work, high rates of survival and transition between grades. Whereas, outcomes include high earnings, participation in community works and other engagements, low crime rates and development of entrepreneurial skills among school leavers. Planning therefore ensures that

developments in access and participation at various levels of education are matched with adequate and quality educational inputs to ensure development and acquisition of right knowledge, skills and attitudes.

The two commissions Kamunge and Koech made recommendations that touched on the quality of education at primary school level. Kamunge commission recommended for review of the curriculum to allow for optional subjects and more time to cover the syllabus. The other recommendations were; adequate provision of teaching-learning resource materials and recruitment of teachers to teach in the upper primary among those who did the respective subjects and passed them at their 'O' level examinations. Koech commission recommended for a supply of well qualified and motivated teaching force, regular in-service progrmmes for primary school teachers on pedagogy, management and administrative courses for school heads. The recommendations were; restructuring of the curriculum to remove content overlaps across subjects and even deployment of female teachers in all schools to act as role models to the girls. In spite of all these recommendations, what are the challenges facing provision of quality education at primary school level? This question formed the basis of the study to determine the extent to which the recommendations of the education commissions established between 1987 and 2008 have been utilized in the planning for provision of quality education in primary schools in Kenya.

1.3 The purpose of the study

The purpose of this study was to determine the extent to which recommendations of the Education Commissions established after 1987 to the present have been utilized in planning for the provision of quality primary education in Kenya.

1.4 Objectives of the study

The objectives of this study were to:

1. Determine the extent to which the recommendations of education commissions established after 1987 have influenced planning for the provision of quality education at primary schools in Kenya.
2. Examine the preparedness of the primary schools to implement education commissions' recommendations since 1987.
3. Assess how the level of provision of educational resources and facilities are influenced by education commissions' recommendations since 1987 at primary school level.
4. Establish the extent of implementation of cost-effectiveness measures recommended by education commissions in the provision of education at primary school level since 1987.

1.5 Research questions

The study sought to answer the following research questions:

a. To what extent have the recommendations from the education commissions established since 1987 influenced the planning and provision of education in primary schools in Kenya?

b. How are primary schools in Kenya prepared to implement recommendations of the education commissions' established since 1987 to improve on the quality of education?

c. How has the recommendations of the Kamunge and Koech education commissions influenced the provision of education resources and facilities in primary schools since 1987?

d. To what extent have the primary schools implemented cost-effective measures recommended by the education commissions established in Kenya since 1987?

1.6 Significance of the study

Over the last six years since 2003 the Kenya government has tremendously increased its financial commitments to primary schools. The increment in financial commitment by the government has not been commensurate with the quality of education offered due to varied challenges resulting from the FPE. One of the challenges is lack of adequate infrastructure because of reduced parents' support towards educational developments in the schools that have given rise to

over crowdedness in classes and high pupil to teacher ratios.

The study is significant to the government in that, the findings can be used by educational planners on how to blend the available inputs into education to achieve quality education and meet some of the challenges at primary school level. To the policy makers, the study has identified the cost-effective measures that can be used in the policy making process for the provision, improvement and efficiency in the quality of education system at primary school level. The study is also significant to the head teachers as it has documented the concerns about the schools' contributions in the preparedness to improve on the provision of quality education at their own levels.

1.7 Limitations of the study

The study involved an analysis of the extent of implementation of education commissions' recommendations on provision of quality education in primary schools level in Kenya. Though the two commissions; Kamunge and Koech commissions were not exclusively designed to serve this level, the researcher went a head to analyze them. As argued by Wanjala (2001), qualitative research like this one falls neatly in the sphere of naturalistic inquiry. Naturalistic inquiries obtain information by using qualitative techniques which emphasize observation and interviewing respondents in their natural environments. Such inquiries require long periods of time which the researcher did not have. However, through

triangulation of the research instruments an attempt was made to resolve the anomalies to obtain plausible findings.

Similarly, in qualitative research techniques, issues of validity and reliability of the instruments ride largely on the skills and competence of the researcher which is rather subjective. Lastly regression analysis used to determine how each variable affected quality education assumes that relationships between variables are linear. The dependent variable (quality education) is related to the set of independent variables making it difficult to ascertain the level of individual influence.

1.8 Delimitation of the study

The study covered the whole country and all primary schools both public and private. The study was also delimited to the recommendations of Kamunge and Koech education commissions that touched on primary schools level of education. Data was collected by using both qualitative and quantitative techniques. All government policy documents that affected education at this level since 1988 formed the basis upon which questionnaire items were drawn.

1.9 Assumptions of the study

Basic assumptions of the study were:

1- Education commissions are essential tools in the qualitative development of education at all levels including the primary school level.

2- Education commissions' recommendations can be used by educational planners to inform planning processes for quality education developments including primary schools level.

3- The respondents would willingly participate in the study and their responses represented the actual situations on the ground about education at primary school level.

1.10 Definition of terms used

Access; - refers to the right of the learners to have and further their education or continue learning once enrolled.

Administration division; - refers to an administrative unity under the District Officer usually taking two or more locations manned by chiefs.

Apparent Enrolment Ratio; - refers to the total number of children in a school system at a given education level (irrespective of their age) as a ratio to the eligible population in the designated age group of the children at that educational level.

A system; - refers to any set of interdependent components with relatively high

closure, connectivity and stability.

Development plan; - refers to the blue print usually prepared to last five years to guide the economic activities of the country within such period.

Education commission; - refers to an education review committee appointed according to the stipulated guidelines as put forward in the constitution or by the parliament of the government of Kenya.

Effectiveness; - refers to the extent to which the outputs in a system are realized at minimal inputs or costs.

Gross enrolment rate;- this is the total enrolments in primary schools regardless of age expressed as a percentage of the population of eligible official school age children between 6-13 years of age.

Internal efficiency in education; - refers to the measure of the participation rates, transition rates between grades and levels, and determination of effective utilization of educational resources in an education system.

Net enrolment rate;- this is the total enrolments in primary schools expressed as a percentage of the total 6-13 year olds in the population.

Period after 1987; - refers to the period covering all educational commissions from 1987 to the present.

Primary school; - refers to a level of education for children between age 6 and 13 years old after kindergarten and before secondary school.

Pupil:teacher ratio;- this is the average number of pupils to one teacher at primary school level in a given school year.

Quality education; - refers to the value of instructions given in primary schools as measured by learners' grades in examination and performance in social activities and job placements.

Real enrolment ratio; - refers to the total number of children in a school system like in primary school level of those within the age group 6-13 years to the number of the eligible population of children in that age group.

Repeater rate; - refers to the proportion of pupils from a cohort who registered in a grade in primary schools in

a given school year who study the same grade in the following school year.

Retention rate; - refers to the ratio of learners who remain in the education system on transition from one level or grade to another to the total enrolment in the same grade in the previous year.

Survival rate; - refers to the ratio of those who proceed to the next grade in the subsequent year to the total enrolment in the previous year in that same grade.

Task force; - refers to a smaller education committee charged with the responsibility of investigating a particular item or aspect in the education system appointed by the minister of education or the president of the republic of Kenya.

Wastage rate; - refers to the ratio of both repeaters and dropouts from a given grade or level to the total enrolments in that grade in the previous year.

1.11 Organization of the study

The study report is divided into five chapters. Chapter one is on introduction. The sub sections addressed include the background of the study, the statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, limitations of the study, delimitations of the study, assumptions of the study, definition of terms used and organization of the study. Chapter two is on literature review discussed under five sub topics; the historical background of the education commissions, education and development, the formulation of educational policies, some cases of planning of education in the world, theoretical and conceptual frameworks. Chapter three is on the methodology presenting; research design, target population, research instruments, and data collection procedures and analysis techniques. Data presentations is in chapter four and chapter five is on summary of the research findings, conclusions, recommendations and suggestion for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter on literature review discusses the existing information on education commissions and planning for quality education. The chapter is divided into five parts. The first part looks at cases of educational planning in the countries of the rest of the world. The second part outlines the historical background of education commissions in Kenya by addressing the questions of why various education commissions were established and the contributions expected if the recommendations are utilized. The third part discusses education and economic growth. The fourth part focuses on the factors that affect quality education by looking at the relationships between educational inputs and outputs. The fifth part looks at the formulation of educational policies and policy guidelines, policy information and the role each stakeholder plays in the policy formulation. Lastly the chapter ends with a section on the theoretical and conceptual framework adapted for the study.

2.2 Cases of educational planning in countries of the rest of the world

In the developing countries, there is abundant evidence that the gap between the educational needs and resources continues to grow as to demand for the utmost rationality and economy within the education systems. The central economic question is why some countries grow faster than others like South Korea's

economy, traditionally based on agriculture has since the early 1960 undergone an extra-ordinary translation towards industrialization. Although this success through the late 1980s was achieved by a system of close government business ties including direct credit, import restrictions and sponsorships of specific industries, the major component was the strong labour force, (map. Zones. Com. South Korea map). The strong labour force may be traced to the abilities of the community to plan its education. The first five year plan of the young Soviet Union of 1923 was the start of the continuous and comprehensive planning process world wide. This planning helped transform in less than fifty years Soviet Union a nation that began with two-thirds of its population being illiterate into one of the word's most educationally developed nations by late sixties, (Coombs, 1969).

Japan on the other hand has had the world's fastest growth in real gross national product (GNP) per capita. By 1911 it had already attained 100% literacy. Through expanding primary and vocational education and stress on western scientific and technical education, and a common language, the Japanese government developed a relatively uniform primary education that fostered national unity as well as spreading up and acquiring western ideas and technologies. The life expectancy in Japan is one of the highest in the world (79 yrs) and mortality rates the lowest 4.5 per 1000, (Nafziger, 1995). The major focus of the Japanese development model was capital formation through

education and technological borrowing policies.

Another case of an excellent real imperative of educational planning is Papua and New Guinea. Within the government, rapid post war expansion had strained old systems past the point of reasonable efficiency. These and other similar stubborn impediments to the achievement of national development goals provoked a review of the situation. It was clear that more effective educational planning was necessary to enable greater progress towards overall goals. At the time the shortage of high level manpower and narrow base of educational enrolment made the whole exercise self-explanatory. The planning was entrusted to a three-man committee, known as, Advisory Committee on Education. The committee started by formulating objectives for each group offering education with major emphasis on economic considerations on how much it would cost and how much it would contribute to the quantitative and qualitative targets desired by the government. The committee set out to meet all stakeholders in education, local government councils, teachers' unions, church leaders and civil organizations as they moved from national to district levels. The opinions, ideas and questions of one group would be tried out in a tentative way on other groups. The effect was a clarification of options and a development of ideas within the committee, serving as a preparation for formulation of the plan. These helped improve the quality of schools and education in Papua and New Guinea, (McKinnon, 1973).

The fundamental task of an educational planner is always to plan rational and

economic use of the nation's scarce educational resources. In Kenya like Papua and New Guinea, the major task was to develop enough labour force (high level manpower) to meet the demands left by departing expatriates at independence. Unlike Japan, which was never colonized, Kenya was under British influence for a period of over a half a century. Education in the British, French and Belgium colonies in Africa was provided to develop intellectual skills necessary for junior clerks, administrative assistants, non commercial officers and operations for the colonial governments, army or European firms but not high level manpower, engineers, scientists, farm and industrial managers, entrepreneurs, government executives and technicians, (Nafziger, 1995). Consequently, independence offered the country an ideal opportunity to plan its education to satisfy its population.

Using social demand approach, education segregation was abolished, more educational opportunities created at secondary and tertiary levels, (Republic of Kenya, 1964). No clear-cut policies however have been put in place as the government continues trying at each level of education system to see which one yields the highest return as observed in constant shifts in the policies in education, (Abagi, 1999).

2.3 Historical Background of Education Commissions in Kenya

According to Sheffield (1973), education in Kenya during colonial period was shaped by different education commissions' recommendations starting with Fraser

Commission in 1909, East African Protectorate Education Committee in 1919, Phelps-Stokes Commission of 1924 culminating into Education Ordinance, Beecher report of 1949 and Bins report of 1951. These commissions among other things recommended three different advisory committees on education for three racial groups; Europeans, Asians and Africans. The curricula recommended for each group had different emphasis on content and methodology where they treated each level, primary and intermediate as ends in themselves with their own educational values.

Africans viewed this as aimed at confining them to rural life and working on the land, hence wanted more education that would guarantee them of urban life and white-collar jobs. The Addis Ababa Conference of 1961 by education ministers of African states stressed the need for provision of Universal Primary Education (UPE) by 1980. This coupled with the United Nations declaration of education as a basic human right in 1948, signaled the need for the newly independent nations like Kenya to plan for more and better educational opportunities for their people, (Ishumi, 1994 and RoK 2003).

Starting with the first post-independence Kenya education commission of 1964, Kenya has continuously addressed the issues of access, relevance and quality of education provided to its citizens. Among its major recommendations the Kenya education commission for example, was the removal of segregated and stratified

education systems and the desire for education to meet the manpower requirements for the economic development of the country, (RoK. 1964). However, the commission failed to address issues touching on efficiency, availability and distribution of teaching and learning materials, physical facilities and equipment, class size or teacher-student ratio and teachers supply and performance at primary school level which all affect the quality of education offered (Ishumi, 1994). Thus the government continued to offer education of different standards in various schools though geared to prepare students for the same common examinations and job opportunities, (RoK, 1976).

The second major education commission, the National Committee on Educational Objectives and Policies (Gachathi Commission) chaired by Peter Gachathi was set up in 1975 and gave its report in 1976 to address the issues touching on quality of education. The commission recommended among other things; a reduction in the number of untrained teachers, removal of classification of schools and provision of teaching-learning resource materials to all the schools. The other recommendation was extension of basic education to nine years. However, there continued to be disharmony in the quality of education offered as most of these recommendations were not acted upon coupled with the massive increase in enrolments resulting from the presidential decree on abolition of school fees and provision of school milk to primary school children in late seventies (Mackay, 1981).

The third major education commission, the Presidential Working Party on the Second University in Kenya (MacKay) was established in 1981 under the chairmanship of Collins Mackay. This commission among its terms of reference was to recommend the establishment of the Second University in Kenya and review the education curriculum as a way of improving the quality of education offered to the pupils and make them self-reliant to ease the problem of un-employment, (RoK, 1981). The commission however recommended among other things the 8-4- 4 -education system whose implementation put a further strain to quality education. The overcrowded curriculum made it difficult for adequate coverage of the syllabus whereas, the increased costs in education affected the adequate supply of the necessary teaching-learning resource materials (Makau, 1986).

The other education commission, Presidential Working Party on Education and Manpower Training for the Next Decade and Beyond (Kamunge Commission) was established in 1988 under the chairmanship of James Kamunge. This commission had among its terms of reference to recommend ways and means of sustaining the momentum of education growth without sacrificing quality and relevance of education to economic development. The commission therefore recommended the introduction of cost sharing in the education sector in the provision of teaching-learning resources as a means of improving quality of education. However, many primary schools were unable to acquire essential

learning and teaching resource materials due to increased costs in education to the parents and communities at large (Bogonko, 1992).

The latest education commission, Commission of Inquiry into the Education System of Kenya (Koech Commission), established in 1999 under the chairmanship of Davy Koech addressed the issues of quality and relevance of education system. The commission recommended for more time to be spent on the teaching of core subjects, English, mathematics, Kiswahili and science. The minimum examinable subjects required for certification at KCPE were recommended to be reduced from seven to five subjects at primary school level. The other recommendation was on rising the minimum years of compulsory basic schooling from the current eight years to twelve years, (RoK, 1999).

2.4 Education and economic growth

The effort to enact many education commissions seem to have stemmed from the realization of the important role education plays in economic development. However, to reap benefits from education investment, education for the majority population should be a target. Primary school education has remained the most education level large populations of the developing world receive in their life time. As a consequence of this many developing countries of the world have committed large portions of their GDP towards the provision of primary education. It is believed that primary education is the foundation on which

economic development paces are anchored as the knowledge, skills and attitude that form will determine an individuals' participation in nation building later in life.

The economies of the industrialized nations in the late nineteenth and twentieth centuries were based on a relatively well educated and skilled labour force. For example Peaslee (1965, 1969), as quoted by Lockheed and Verspoor (1991) examined the relationship between growth in primary school enrollment and gross national product (GNP) per capita for over 110 years (1850-1960) in thirty four of the richest countries. He found that none of the countries had achieved significant economic growth before attaining Universal Primary Education (UPE). Other studies by Lan, Jamison and Lavat (1991) still quoted by Lockheed and Verspoor (1991) for the period 1945- 1990 found economic growth powerfully affected by primary education in twenty two countries of East Asia, and Latin America. Virtually all the recently industrialized economies with dramatic growth such as Hong Kong, Israel, Japan, the republic of Korea and Singapore achieved Universal or almost universal primary education before attaining these positions. The most successful of those economies also had high enrollments in secondary school and a labour force that was almost universally literate just before the rapid and sustainable industrial growth began (World Bank 1987b).

Combined with sound macro economic policies, education is therefore fundamental for the construction of globally competitive economies and democratic societies. Education is a key in creating, applying and spreading of new ideas and technologies which in turn are critical for sustained growth. Education augments cognitive and other skills which in turn increase labour productivity. Education builds "human capabilities" the essential and individual power to reflect, make choices, seek a voice in society and enjoy better life, (Bruns, Mingat and Rokotomalala, 2003). For these reasons and others, the World Bank has continued to partner with other donors to support educational development throughout the developing countries of the world.

Even though there has been notable progress in education developments everywhere including in Africa, there are far too many children who do not have the chance to go to school and of those who get a chance, far fewer again complete the bare minimum schooling needed to make them become permanently literate and numerate. The unacceptability of this state of affairs galvanized governments and international communities to adopt millennium declaration of 2000 by the United Nations member states through eight explicit goals known collectively as the Millennium Development Goals (MDGs). Two of these goals pertain directly to education that by 2015, all children will complete full course of primary schooling and that gender disparities in primary and secondary education were to be eliminated preferably by 2005 and in all levels of education no later

than 2015 (Mingat, Jee-pen Tan and Sosale, 2003).

The achievement of other MDGs will rely heavily on education. The MDGs like lowering of child mortality, bettering maternal health, effective control of infectious diseases and improvement of management of the environment depend heavily on achievements made in education and particularly primary school education. It is with this realization that many nations world over have committed colossal sums of money to improve their education systems.

2.5 Factors that affect quality education

The concept of school quality refers to such features as the training and standards of the teachers, the supply and quality of teaching materials such as text books, the standards of school buildings and facilities, the health, nutritional status and prior learning of students themselves and nature and efficiency of educational administration and infrastructure. Hence quality education is affected by many factors which can be summed up into; curriculum to be offered, teaching-learning resource materials, teacher characteristics, pupils' characteristics, school factors and home factors.

2.5.1 Curriculum

A curriculum is a vital element in determining the quality of education received by learners in learning institutions and elsewhere where learning takes place. In some countries efforts have been made to standardize and coordinate school curricula in order to deliver a more recognizable and assured quality of education across a wide diversity of schools (Gannicott and Throsby 1996). Although debate on curriculum development in developing countries has been centered on the need for 'vocational' and 'academic' education, especially once basic skills of literacy and numeracy have been attained, this should be a dynamic exercise that incorporates all types and levels in education if the learning is to meet needs and aspirations of the learners. Thus curriculum should change according to the ever changing needs of society

In Kenya since the inception of the 8-4-4 educational system in 1985, primary school curriculum has been reviewed three times. Five years after the inception of the 8-4-4 curriculum into primary school cycle the Kenya Institute of Education (KIE) carried out an evaluation of the primary education. Based on the findings of the evaluation, the primary school curriculum was revised and new syllabi sent to schools in 1992. Other reviews were done in 1995 and 2002 which produced the current syllabi being used in schools (ROK, KIE manual 2006)

To implement a developed curriculum in schools, teachers and pupils interact in

classroom during the teaching-learning process. Therefore a concern on the quality of the education given would be trying to answer a question, is the curriculum appropriate to the needs and context of learners? Historically modern public education in developing countries developed from two distinct educations. One was concerned with educating the elite and another one with educating the masses by the colonial masters. The objectives of the two educations were different. Elite education was to train intellectual elites, drawn largely from privileged social strata in capabilities of reasoning, rhetoric, mathematics and scientific thought. In contrast, education for the masses was established with an aim of producing minimal levels of competence in the general population. The schools for masses therefore concerned themselves with basic skills of reading and computation, with health and citizenship (Lockheed Verspoor and associates 1991). How have the resulting curricular under one education system been developed after independence in these developing countries to cater for the two categories of learners?

Inappropriate curriculum may affect the quality of education offered in an education system. In Kenya several education commissions have been established to address various issues in education but still there continue to be problems on the quality of education especially at primary school sub-sector. For example many activities incorporated into the syllabus from the recommendations of the various education commissions require adequate space for writing, drawing and

easy movement during group formation and discussion in class. The teacher: pupil ratio, size of the classrooms and the type and size of the furniture used in class may hamper these noble ideas.

The rapid growth in information technology and the availability of new and advanced information technologies are placing new demands on teachers (Kamunge 2006). These contemporary factors and issues in education require dynamic, responsive and well coordinated system of in-service education and training to facilitate the achievement of the anticipated growth oriented, equity and progressive society (Bishop 1985). At the same time there is need for a continuous review of the curriculum and training of teachers who implement it (Okumbe 1998).

A poor curriculum of primary education may compromise the entire system of human capital development. If the curriculum is not well thought out, education system may produce students who are poorly prepared for secondary and tertiary level education and adults who are illiterate. Most likely it may not produce enough truly educated parents, workers and managers to contribute to national development. Although poor quality may exist at all levels, improvement must begin at primary school level where children develop their basic attitudes and approaches to learning.

2.5.2 Teaching-learning resource materials

Teaching materials (instructional materials) consist of text books, student guides, maps, black boards, chalk and other teaching requirements needed by individual pupils like pens, pencils, paper and so on. Of these the most important is the text books. The evidence on the importance of text books and other instructional materials for the learning of students is overwhelming (Gannicott and Throsby 1996). Yet, despite their manifest importance, instructional materials are the most neglected input into educational process especially at primary school level. This is a particular problem in developing countries where in many cases students either lack textbooks altogether or are required to share textbooks with other pupils. Further more the quality of those books that are available is frequently poor, in respect of both their physical and their instructional characteristics (Gannicott and Throsby, 1996). However this situation has been alleviated through the FPE funds in Kenya since 2003 the only worry is its sustainability.

Many scholars have established the relationship between the availability and utilization of the teaching-learning resources and the achievement of the learners. Among the scholars is Ayot (1995) in his study to establish the effectiveness and process of adult education in Kenya appraised adult education graduates and their impact on community as a whole by focusing on the learning-teaching resource materials, facilities and other resources that affected the learning of the adult education learners. The other scholar is Eshiwani (1983), in his study on factors

influencing performance among primary and secondary school pupils in Western Province of Kenya came up with the factors as school resources and processes, teacher characteristics, students' traits as among the factors with great influence on performance. For example an analysis of the Kenya Certificate of Education (KCE) results over five years between 1978 and 1982 in Eshiwani's study showed that the schools with better facilities were among the top high performers in the province. The other factors are hours of schooling an individual child receive per year. Coomber and Keeves (1973), as quoted by Eshiwani, observed that within limits, the more hours allowed for instruction in a subject, the higher the achievement. However, both Ayot and Eshiwani did not relate these factors to the education commissions' recommendations for quality education at these levels.

Studies in other parts of the world point to the same influence the school facilities have on achievement. The marginal returns due to increased supply and improved quality materials especially textbooks are likely to have far reaching effects on academic achievements, particularly where levels of provision are low.

2.5.3 Teachers' characteristics

Teachers have remained traditionally at the centre of learning process in classrooms. Teachers understanding of relevant classroom behavior can be improved upon to bring into line the much desired efficiency in a school system by producing learners who are independent, happy and productive members of

society. Teachers initiate learning in classrooms by asking questions to the whole class when introducing a lesson and then move on to direct questions to individual pupils and do demonstrations using appropriate instructional materials. These help learners in dispelling off fear and make them happy during the lesson (Stephen, 2003).

Thus, the teachers' ability to involve learners in the lesson development by using teaching-learning resources and asking questions make pupils get involved by dispelling fear among them. The use of demonstration and teaching-learning resources enable the pupils to understand the content even if they may have language difficulties. However the pre-service teacher training often fails to prepare teachers for the reality of the classroom in terms of large classes, in sufficient or poor quality teaching and learning materials, and how to handle pupils with varied abilities in the same classes. The training also does not prepare teachers well to handle vast differences in the capacities of learners and in some cases the complexity of having to cater for the different languages spoken by learners at home (UNESCO, 2003).

The inadequacy in teacher training colleges together with the changing learning environment puts pressure on educational system to improve on the teacher characteristics to tackle issues of quality of education delivered. Many research findings reveal that teacher characteristics after pre-service training can be

improved through in-service training programmes (Clarke, 2003). The in-service training will improve the teachers' professional development by inculcating practical and theoretical skills and approaches. The forum can also be used to translate teaching and learning into a learner centered process. This is because the quality of teaching depends on the quality of teachers which in turn depends to some extent on the quality of their professional development. Therefore the aim of in-service training should be to enable a practicing teacher to improve on instructional and professional knowledge, interest and skills. Hence the improvement in the quality of learning depends mainly on improvement of the teacher competency since they are at the centre of the teaching- learning process.

In-service trainings are also used to interpret and implement government approved innovations in education, prepare teachers for assignment in new areas for example inclusive learning, life skill education and setting and marking examinations. It also provides an opportunity for serving teachers to acquire new pedagogical skills in the curriculum instruction and school administration.

According to a government survey by Kenya Institute of Education (KIE) on teachers in 1998, only 39% of teachers had attended in-service training of some kind ones in their life time since they qualified from the teacher training colleges (ROK 2001). In-service causes on management are quite crucial especially to the serving and prospective head teachers. The head teachers are lead persons in

planning, directing and coordinating school activities so they require constant training and workshops to help them solve contemporary issues they encounter daily in their duties. Pre-service alone cannot adequately prepare teachers for the challenges of life long teaching in this rapidly changing world.

However, for the in-service training to have any impact upon the quality of education delivered, it must challenge the teacher in as much more critical fashion as possible especially in their already acquired culture of teaching. Teachers should then be supported in moving further along the continuum of reform to consider the quality of student learning that nurtures student thinking, transfer of skill and creativity (Clarke, 2003).

A study carried out by the Vietnamese government in 2001 to assess the nation's educational achievement at the end of primary education showed that where the teachers were weak in mathematics and reading as shown by their scores, the pupils taught by such teachers had serious handicaps in the subjects as seen in their low performance (Postlethwaite, 2004). Among the teacher characteristics to be addressed then will include their own academic qualifications and training, attitudes, motivation, and cultural construction of teaching and learning. Opportunities therefore should be provided or open to teachers to improve on their own academic qualifications, change attitudes in the cultural constructions of teaching and learning.

2.5.4 Pupil characteristics

Expansion of quantity of schooling and enhancement of quality can be seen as directed ultimately towards a similar goal, the improvement of educational outcomes for the relevant students in age groups in the population. Yet both quantitative and qualitative investment projects in educational sector compete for the same limited public investment funds. From a public policy point of view there has to be a trade off between these two, quantitative expansion and qualitative involvement. Educational quality is not a single homogeneous entity but comprise of a complex bundle of factors including pupil characteristics whose individual importance may vary substantially from place to place and from time to time.

Learning usually takes place during the interaction between a teacher and pupils in the classroom practice. Pupils come to classrooms from varied backgrounds and capabilities all of which affect their learning process. Learning to a great extent will depend on the state of mind of all those involved more so of the learners (Stevens, Wood and Sheehan 2000). The pupil characteristics therefore will range from family economic and social background, early exposure to education at pre-primary schools, and role models, who create motivation among the pupils and to language competencies both at home and school. The other characteristics are the gender, place of stay whether urban or rural, and so forth. Therefore the schooling outcomes observed in the pupils at a given point in time

represent cumulative product of a process overtime governed by these characteristics. Therefore the impact of a given set of schooling conditions in quality of education needs to be gauged by how much it improves the capabilities of the children exposed to it.

2.5.5 School characteristics

Equally important are the characteristics of individual schools towards the learning process. Issues of school effectiveness are clearly related to management and administration of educational systems and in schools themselves. There is reason to believe that good educational management is vital to maintaining educational quality. Here, education administration refers to three broad levels; at the centre, intermediate and individual schools. At the centre is the central functioning of planning, development of sector strategy and provision of inputs, monitoring and evaluation through examination programmes and so on. At the intermediate or local level (e.g. state, province or district) the administrative structure provides support and assistance to schools through the channeling of inputs, monitoring of school performance and provision of a focus for community support. Lastly at individual school level, the role of management is in day-to-day operations, organization and mobilization of various groups directly involved in the provision of incentives to parents, staff and pupils.

Acquisition of knowledge and skills through education is based strongly on

relation between teachers and pupil. The necessary resources for this to happen exist at the level of the school itself and other levels have little to contribute if that is not there. School characteristics generally will be looked at in terms of preparedness of a school to implement the required curriculum. School preparedness will be measured in terms of the arrangements put in place by the school management for the provision of the teaching-learning resource materials to be used. The other concern is the continuous improvement of head teachers' management skills and knowledge especially in mobilizing and utilizing resources available.

The preparedness among pupils is the development of; language policy of the individual school, provision of meals, solid waste disposal facilities, availability of clean water. The others will be; provision of foot paths and pavements, furniture in the classrooms, and relationship between the school and community through the School Management Committees (SMCs). School improvements usually depend on an adequate administrative and management structure in place. This is supported by the findings of a study of Loreto Day School in Calcutta India as reported by Jessop (1998) as reported in (Clarke 2003).

The report on Loreto School showed that shared vision, freedom and responsibility to affect curriculum reform delegated to the school authority and strong community linkage are important to quality learning outcomes in a school.

Loreto Day School was reported to have taken an institutional approach in raising levels of school quality by developing five criteria of best practice which are phrased as questions. Is the teaching and learning stimulating, motivating and challenging? Are the resources used imaginatively and to the best capacity? Are the relationships between all the members of the school community open, productive and relatively happy? Does the school make explicit the values upon which the entire educational process is based, thereby contributing to a shared vision and purpose? And lastly, does the school make a contribution to society which is beyond the norm (Clarke, 2003)? The operation of SMCs in Kenyan schools should be guided by these questions.

In Kenya, development and planning of school expansions and improvements is left in the hands of the SMCs and the H/Ts. Therefore, the pace and tempo of the school developments will heavily depend on the abilities and capabilities of the head teacher and the SMC. The question then remains, how do H/Ts and SMCs disposed to foster the improvement on the schools' characteristics for effective learning to take place within their individual schools? The government involvement in the provision of teaching-learning resources has created confusion on the roles to be played by the SCMs.

2.5.6 Home background of the learners

The other factors impacting on quality are the contributions from the home background of the learners. Studies by three large international organizations, Consortium of South and Central Africa Member Countries on Quality Education (SACMEQ), involving 14 countries, Programme for International Student Assessment (PISA), involving 43 countries from both developed and developing and International Association for Evaluation of Educational Achievement (IEA) done in over 70 countries, all revealed that there was a significant percentage difference between pupils in different socio-economic groups attaining the different mastery levels in reading and mathematics.

Similarly the studies revealed that there were variations among countries, provinces within countries and among schools within provinces not only as regards teacher subject matter knowledge but also as regards other variables like gender and social background of the students and school level factors. The studies also revealed that there were differences in performance in different content areas resulting from different emphases in the curriculum in widely used textbooks, as well as differences in the implementation of the curriculum. This can help the educational planners to identify where the curriculum specialists can lay stress on the various content areas of the subject matter (Postlethwaite, 2004).

The World Conference on Education For All (EFA), held in Jomtien, 1990 nearly

half a century after the United Nations adoption of the Universal Declaration of Human Rights in 1948, noted that, there were still 100 million children without access to basic education and a similar number of others failing to complete primary school cycle. More saddening was the fact that of those who gained initial access and successfully completed primary school, millions again failed to acquire the requisite knowledge, skills and competencies needed for the fulfillment of life's demands. Pupils learned mostly by rote memory, due to lack of reading-learning resource materials, among other requirements (SACMEQ I and II). Governments require information on the inputs in education if quality education has to be offered. However, lack of information on the relationship between inputs and outputs in a school system that can be used as basis for sound planning decisions is extremely unfortunate. The governments need this information in order to choose among possible and affordable course of action to offer quality education to its pupils. Education budgets are shrinking and therefore it is not possible for school systems to distribute all the essential educational items and resources to schools.

2.6 Cost effective provision of education

Cost effectiveness analysis compares the policy options in terms of their marginal impact on outcomes relative to costs and also helps to sieve out some of the ambiguity in policy formulation. Under the analysis, the analyst needs to identify the potential options for action and set priorities among them. For example, as a

policy option, a decision to either hire already qualified teachers with high credentials or take in the serving teachers to improve their qualifications through the in-service training to address quality of the teaching will utilize cost effectiveness analysis.

According to Harold and Heinz (1998), in designing an environment for the effective performance of individuals working together in groups, the essential task of the administration is to see that everyone understands the groups' purpose and objectives and its method of attaining them. The Kenyan government has used education commissions to involve people in planning of education by soliciting their views and opinions around the country. These have helped in formulation of guidelines that are referred to from time to time to direct activities towards modeling education to reach the masses and equip them with knowledge and skills for national development. The other sources are various philosophies, opinions of pressure groups, international laws and declarations about socio-economic and cultural values of a country and even political systems and aspirations, (Olembo, 1992).

The implementation of such policies through education commissions' recommendations are often delayed for example, the UPE by 1980 declared in 1961 was delayed and only implemented in 1974 through a Presidential directive, (Olembo, 1992). Similarly, the EFA declaration made in 1990 had to wait until

2003 through yet another presidential decree. The problem that accompany these presidential statements of quantitative achievement orchestrated through political decrees is that, the less obvious questions regarding the validity of the original objectives of the exercise and whether the objectives are attained or not are often ignored, (Ishumi, 1994). For example, the questions like was the original planning adequate? Is the education to be offered of high quality? And what is the knowledge scope and functionality of the graduates of the system? These questions are often never addressed.

The other problem is that there is usually no proper survey or calculation done to determine the required inputs (teaching materials, school equipment, support facilities, or even teachers), to match the expected sudden increase in enrolments. The implementation of education cannot just respond to the inertia of the free education climax, as Aduda commented following the implementation of free primary education in Kenya in 2003, (Aduda, 2005).

Hence, there is need for a drive or a push to sustain such inertia by identifying various inputs that may impact on quality of education offered lest gravitational forces pulls the progress made in education downhill in the enrolments due to high pupil drop out, absconding and rampant absenteeism and poor quality outcomes of the school graduates like in the years that followed the implementation of free primary education in early 1980's and 2004.

Bwonda and Njeru (2005), in their study on Primary Education in Kenya: access and policy implications, 1989 - 2002, made a critical analysis of primary education in Kenya, with major emphasis on access and participation, while drawing relevant policy implications for consideration towards ensuring an efficient and effective delivery of quality primary education. They concluded that if Kenya is to achieve the national primary school educational goals within a dynamic environment, access, equity and quality in education have to go hand in hand. Therefore, the formulation of policies must ensure that developments in access and participation in primary school education are matched with adequate quality educational inputs such as continuous in-service training of the teachers, provision of relevant teaching and learning resources, construction of physical infrastructure and improving school environment.

Abagi and Olweya (1999), in their study on Educational Reform in Kenya observed that, the government need to initiate and develop viable and sustainable monitoring and evaluation mechanisms at both national and micro school levels to enhance participation in education. They further observed that policy formation and implementation should not be restricted by rigid political and bureaucratic structure. Instead, critical, rational and professional inputs should provide short and long-term goals for education if quality in education is to be maintained.

Universal primary education programme without desks to sit on, books to read, chalk for blackboard work, a UPE programme without the necessary professional and pedagogical supports fall short of basic functional education it is meant to be. A UPE programme with prohibitive, bottle-necks towards higher levels of knowledge and functional skill, training and application is liable to lead a society not only to an abyss of mass illiteracy but also to a self-limiting national intelligence which is a necessary condition and base for any future technological development necessary for the community. Hence lack of a study to assess the impacts of all these issues raised will leave planners with no sound information to help plan quality education.

2.7 Summary on discussion of literature review

The chapter review of literature has identified clearly some of the factors that influence pupil achievements in school performance at primary school by various studies. The studies discussed did not establish how these factors can be blended to enhance quality education. A study by Eshiwani identified factors that influenced performance in KCPE in western Kenya whereas one by Ayot on the effectiveness and process of adult literacy mainly analyzed the functionality of the graduates in the community where they came from. The Vietnamese study revealed that teacher characteristics have a positive influence on student scores. Other studies concentrated mainly on policy analysis and implementation based on the Kenyan education philosophy. Although the SACMEQ I and II studies,

looked at the quality of education at primary schools in the Southern and Eastern Africa, they concentrated mainly on the grade six pupils. The studies also looked at the performances in Mathematics and English only. Programme for International Students Association (PISA) and IEA studies though included science in their analysis they similarly concentrated on one grade, grade five only.

Education commissions can be used in base line studies to identify appropriate means and ways to enhance quality education. However, it is imperative to establish the extent to which these have been used to enhance quality education? This study therefore aimed at addressing this question by examining the entire primary school level. The inputs recommended by the education commissions were evaluated to determine how they are being treated to impact on the quality of the outputs at this level.

2.8 Theoretical framework

Educational planning has its intellectual roots in the applied disciplines of architecture and engineering (Catanese and Snyder, 1988). Though the development of a guiding theory for planning education has been slow, there are two major theories that education planning anchors on to seek to provide tools and techniques for controlling and changing education systems; theories of System Operation and theories of System Change. Education systems are vastly complex and highly interdependent entities whose full operation is only partially

understood. According to theories of system operation, introducing a single change in any part of this complex education system inevitably results in a series of secondary changes and readjustments throughout the system. These secondary changes are at times not intended and may bring undesirable consequences in the system or problems not easy to solve. The implementation of any change in an education must be well thought and researched a role played by commissions.

Thus, in order to understand and anticipate how complex education systems operate, how they are likely to react to planned changes and interventions; it is necessary to draw upon information and ideas from a number of sources. Therefore, education commission members move throughout the country to collect views from the people on the changes to be included to improve the education offered. The other sources come from political overtones and international concerns.

The general systems theory provides the closest approach to the total system view point necessary for good planning. In planning based on theories of system change, the task is to find out how, when and for what purpose changes are to be introduced into the system which is usually the function of baseline studies.

Therefore, the study hinged on the Human Capital Theory that postulates that, education leads to acquisition of knowledge, skills and attitudes. The human capital theory assumes that labour accounts for three quarters of any country's national output. The type and hence the quality of labour is of major concern to an economist. Education has a direct impact on the economy through increasing the stock of knowledge, skills and inculcating right attitudes and ensuring their diffusion. The nature and quality of these knowledge, skills and attitudes depend on the quality of the type of education offered (Wanjala, 2001). The high quality knowledge, skills and right attitudes so acquired lead to high productivity of the educated helping in increasing the economic development of the country (Blaug 1968).

Education Production Function which is a consequence of the Human Capital Theory is another theory that guided the study. The theory outlines the factors of production of educational inputs; teachers' and pupils' characteristics, provision of teaching learning resources, type of curriculum offered, time available for syllabus coverage and school environment among others. These variables are aggregated into a production function;

Q = f (T, P, R, C, t, E, ...). Where;

f- stands for function

Q= Quality of education acquired

T= Teacher characteristics,

P= Pupil characteristics,

R= Teaching - learning resource materials

C= Type of curriculum offered,

t= Time available for syllabus coverage and

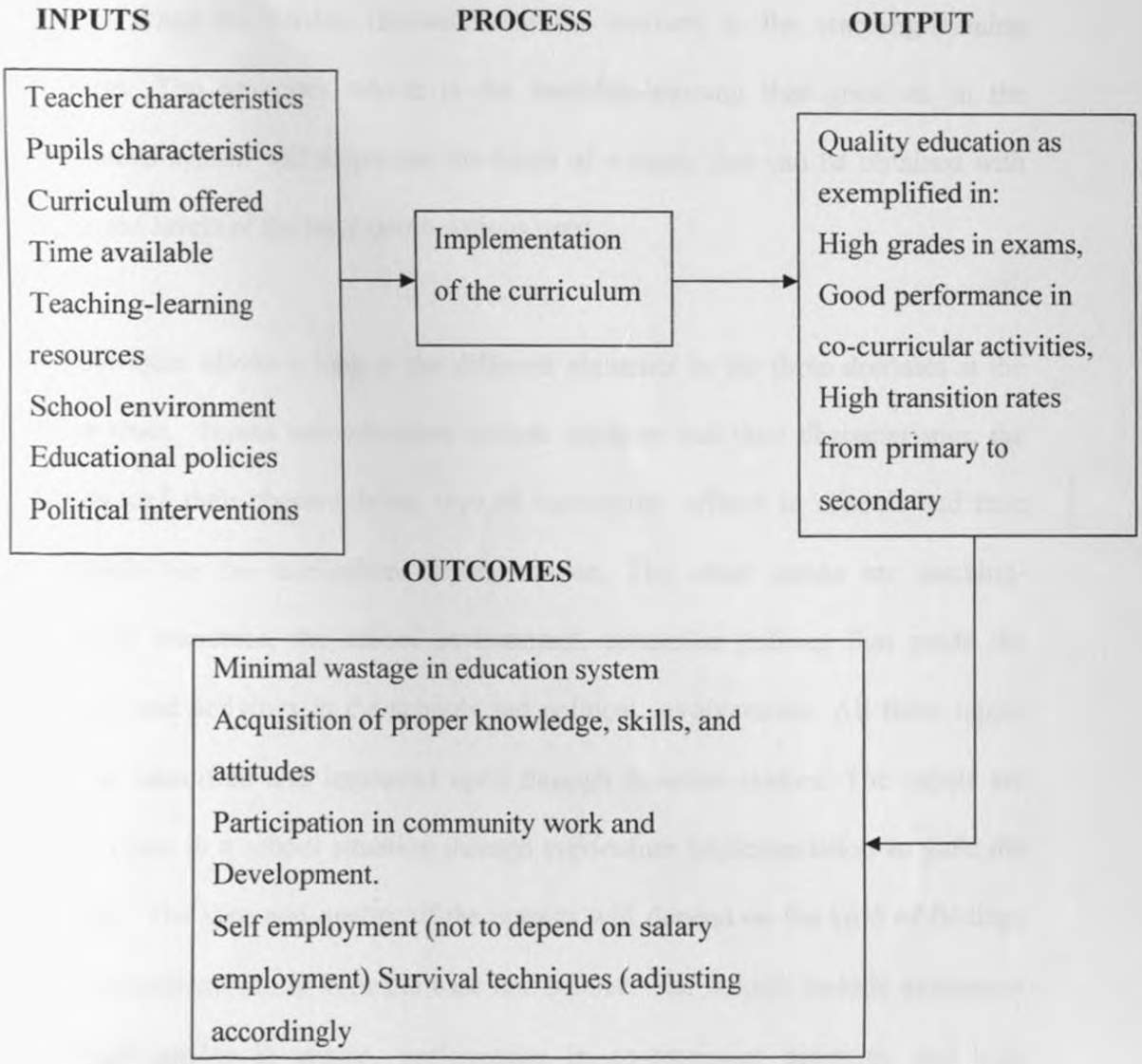
E= School environment

This function can be expanded into a Black Box Model of educational planning as shown in the conceptual framework. The two theories are appropriate to the study. The heavy expenditure to education at primary school level is based on the assumption that this remains the only level for a majority of Kenyan children. Therefore they should be equipped with functional knowledge, skills and right attitudes to help in the national economic development before they leave school for whatever reason. However, the acquisition of these knowledge, skills and right attitudes is not a simple equation. It involves the mix up in certain proportions of various factors of educational production. The relationship among the variables is put in the black box model shown in figure one.

2.9 Conceptual frame work

Figure 1

Black Box Model



Adapted from, Davis R. G, Planning Education for Development Vol. II (1980, p11)

In the conceptual framework the independent variables which are the inputs into education system affects the dependent variables which are the outputs from the education system. The conversion of the inputs into outputs takes place in the school when the teacher interacts with the learners in the teaching-learning process. The processor which is the teaching-learning that goes on in the education system will determine the kinds of outputs that can be obtained with different levels of the input combinations used.

This model allows a look at the different elements in the three domains at the same time. Inputs into education include teachers and their characteristics, the pupils and their characteristics, type of curriculum offered in schools and time available for the curriculum implementation. The other inputs are teaching-learning resources, the school environment, education policies that guide the actions and activities in the schools and political involvements. All these inputs can be identified and improved upon through baseline studies. The inputs are acted upon in a school situation through curriculum implementation to yield the outputs. The type and quality of the outputs will depend on the kind of findings and recommendations from the base line studies. The outputs include attainment of high grades in exams, performance in co-curricular activities and high transition rates between grades. Apart from the outputs there are outcomes that include minimal wastage, acquisition of proper knowledge, skills and attitudes. The other outcomes include participation of the school graduates in community

work and development and being able to be self employed rather than to depend on salaried employment. Through baseline studies, some of these inputs can be identified and enhanced to improve quality of education offered. The Kenya government has tended to use education commissions variously in such baseline studies to identify factors that can be used to improve on its education system

CHAPTER THREE

METHODOLOGY

3.1 Introduction.

This chapter discusses the methodology used in the study. First, it outlines the research design adopted, target population, sampling techniques and sample size. The chapter also describes the research instruments that were used, their validity and reliability and how they were determined. Finally procedures on data collection and analysis used are presented.

3.2 Research design

The study aimed at determining status of the extent of utilization of recommendations from the education commissions in planning for provision of quality education in primary schools in Kenya. This involved examining the level of provision of resources, facilities, equipment and other capacity building in schools as recommended by the education commissions at the primary school level. The researcher used techniques of qualitative research paradigm to do this.

The researcher used a descriptive survey research design. Bogdan and Biklen (1992), agreed with Mulusa (1990) that a survey research design is part of the process of collecting data to be used in making value judgments and decisions on status of events, processes and products against objectives set. Mugenda and Mugenda (2003) argued that survey is part of the process of seeking explanations

for a status of a phenomenon through the use of systematic and controlled scientific methods of collecting data. Since this study involved collection of data to help in determining the status of the implementation of education commissions' recommendations in schools, the design was found to be most appropriate for the study.

3.3 Target population

The study targeted all primary schools in the republic both public and private. There were 20229 primary schools in the republic in 2006, (ROK, 2008). The target population therefore was 20229 primary schools. This data gave a target of 20229 head teachers (H/Ts) as there is only one H/T per school and 101145 subject panel heads (SPHs). The assumption for the target population of SPHs was that there were five subject panel heads per school for the key subjects. The five key subjects are the ones that are examined at the national level by Kenya National Examinations Council (KNEC) at the end of the primary school course leading to an award of a KCPE certificate. The subjects examined are English, Mathematics, Science, Kiswahili and Social Studies and Religion.

3.4 Sampling techniques and sample size

The quality of a study is often better with sampling than with a census when dealing with a large population (Cooper and Emory, 1995). In sampling, respondent cases posses the possibility of being interviewed (tested) better due to

availability of time and other resources which may be a hindrance with an entire population. The respondent cases in sampling are liable to thorough investigation of missing, wrong or suspicious information offered and for better data processing than is possible with wholesome population. The researcher therefore sampled out schools spread all over the country to participate in the study to gain in-depth information and facts on the implementation of the education commissions' recommendations in the schools.

As suggested by Cooper and Emory (1995) and Hussey and Hussey (1997), the aim of using qualitative research techniques is to get in-depth information. For example, if one is asking opinions on a particular topic and everyone in the population has the same view, then a sample of even one may give a complete picture of the situation in the entire population. Therefore a small sample enables the researcher to obtain thorough information on the population within the time and resources available.

A school being a unit of implementation of the education decisions and policies and for preparing candidates at each educational level for the same common national examinations using common syllabi should give a true picture on their implementations. In essence therefore any school chosen is supposed to reflect all the necessary changes in the education system at any one time. However, variations in economic endowment by people in different regions and inequality

in the national distribution of resources, the level of implementation may differ from one region to another. The schools were first clustered into 8 administrative provinces consisting of 76 districts.

The 76 districts were used as administrative units by the Kenya National Examinations council ranking in 2006. The administrative units consisted of 6 municipalities; Kitale, Eldoret, Nakuru, Kisumu, Thika, and Mombasa and 70 politically defined districts. The units were of different characteristics; rural, rural-urban and urban set ups. It was assumed that the variations in the provinces, in the districts and in the schools were normally distributed. Central Limit Theorem was applied in the determination of the sample size. Based on this theorem one can be reasonably sure that the sample mean that is obtained from a large population will be close to the true population mean because in normally distributed frequencies, the sample means cluster around the true mean (Pelosi & Sandifer, 2003). Based on this theorem the statistic equation that was used to determine the sample size is given as

$$n = Z^2_{\alpha 2}\sigma^2 / e^2$$

where n is the sample population,

$Z_{\alpha 2}$ is the tail area probability which depends on the confidence level

σ is the population standard deviation

e is the error for estimating the population mean.

Values found from the pilot study yielded an σ value of 60 at a tolerance error of 10

Therefore the sample size n used was; $n = (2.33^2)(60^2) / 10^2$

$= 195.44$ rounded up to 196

These numbers of schools were distributed among the provinces on 'measures of size' based on the population of KCPE candidature in the province compared to that of the nation for a given year. To get the number of schools in a district a 'measures of size' was similarly done per the district enrolments to the enrolments in the province.

$$\frac{\text{Number of candidates in a province}}{\text{Total number candidates nationally}} \times 196 = \text{provincial size}$$

For the district sample size the calculation was done as shown

$$\frac{\text{Number of candidates registered in a district}}{\text{Number of candidates in a province}} \times \text{provincial size}$$

Thus,

$$\text{Number of schools within the district} = Ah \times \frac{MOS(Nhi)}{\sum MOS(Nhi)}$$

Where

Ah = number of schools to be selected in the province

MOS (Nhi) = measure of size for a district which is the number of standard eight pupils in the district

$\sum$MOS (Nhi) = total number of standard eight pupils in the province.

The numbers of schools that participated in the study were determined by this equation. To ensure that all districts were represented in the study a "ninth" cluster was created for the districts whose measure of size was below 0.5. These districts were Isiolo, Moyale Marsabit, Samburu, Ijara, Kitale Municipality and Tharaka Nithi.

The distributions are in table 3.2.

Table 3.1

The population of sampled schools per province

Province	KCPE Candidature	Provincial size used
Coast	44161	22
Eastern	102413	24
N/Eastern	7470	14
Central	114048	25
Nairobi	**30294**	**22**
R/Valley	168915	28
Western	80683	23
Nyanza	98447	23
Ninth cluster	8451	14
Total	**666452**	**196**

Source: KNEC Data 2007

The numbers of schools selected from each province were as shown in the table 3.1. The schools were further distributed in the districts. The individual schools in the district were selected by simple random sampling. The KCPE school code numbers for the schools in each district were written on small pieces of paper which were folded and put in a basket. The papers were picked one at a time and the school whose code number corresponded with the number on the piece of paper picked was selected to participate in the study. The exercise was repeated

with replacement until the total number of schools for each district was reached.

3.4.0 Research instruments

Four research instruments were used to collect data during the study; document analysis, questionnaires, interview and observation schedule. Following are brief description of each:

Document analysis

The researcher did a document analysis which was mainly a desk-study of the existing policy documents and government publications including, development plans and reports, sessional papers, syllabi, annual KNEC reports on KCPE performance, District Education Board (DEB) minutes, census reports, economic surveys and other relevant statistical data to establish the government commitment in implementing the education commissions' recommendations. The analysis was guided by the individual recommendations. The document analysis yielded data on the government efforts in implementing the education commissions' recommendations in schools to improve on the quality of education. Among the government efforts determined in the document analysis was the government's commitment in providing teaching-learning resources, motivation of the teachers, improvement in the curriculum, and ensuring access of education to all who deserve as recommended by the two commissions. The findings also formed a basis upon which questionnaire items were constructed.

Questionnaires

Two sets of questionnaires were constructed by the researcher to capture the levels of implementation of the recommendations of the two education commissions' reports at each school. The individual commissions' recommendations that touched on primary schools, syllabi for primary school level and other factors found during the document analysis guided the contents of the questionnaires. One set of the questionnaire was administered to each SPHs and the other questionnaire was administered to the H/Ts of the selected schools.

The questionnaires were hand delivered to the sampled schools. The questionnaires items were both structured and un-structured. The structured and un-structured items helped to determine conformity of the respondents on issues raised in the questionnaires and also gave them freedom to expound and give opinions on the issues raised in the items respectively. The H/Ts questionnaire items were to capture their bio data, the school enrolments, level of staffing, adequacy of teaching-learning resource materials, sources of the school supplies and policies on teaching and examination. The questionnaire items for the SPHs were to capture information on the bio data, the efforts in place to develop the teachers in the pedagogical skills. The other information sought were adequacy of the teaching-learning resource materials and intervention measures in place to help pupils excel in the examinations. Both H/Ts and SPHs were expected to fill in the questionnaires and mail to the researcher after a period of two weeks using

a self addressed envelop that was provided.

Interview protocol

Interview items were developed for the H/Ts to counter check the questionnaire responses and confirm observations made. The conducting of the interview followed the same format for all the H/Ts. The question items were asked in a form and order already prescribed to help check on the information offered in the questionnaire and to get a clarification of the information gathered during the document analysis and observations made in the schools. The session provided an opportunity for the researcher to expound on the items that were found to be confusing or not understood by the respondents in the questionnaires.

Observation checklist

An observation checklist was prepared to cover items that are supposed to be in the schools to enhance teaching and learning. The items observed included: the sitting arrangement and type of furniture in classrooms, general school cleanliness, adequacy of solid waste disposal methods (latrines), kind and adequacy of water points in the schools and general school lay out; pavements and flower beds playing grounds. The other observations were about the size and adequacy of space of teachers' staffroom, school stores and H/Ts office. For each item observed, appropriate remarks were made against the item in the observation check list.

3.5.1 Instrument validity

To check on the instrument validity, the two research supervisors and colleagues in the department of education administration and planning were consulted. The comments they gave were incorporated during the final preparation of the research instruments. The research items that were found clouded and confusing were discarded in the final drafts used in the field. The use of these groups of experts in validating the research instruments is inline with suggestions by Cohen and Manion, (1994) who argued that supervisors and colleagues can be used to give objective opinions on contents of the research instruments to ensure both content and construct validity.

Validity for each instrument used was also determined during the piloting exercise. The instruments were piloted in 3 schools, one in Kiambu District, one in Uasin Gishu District and one in Eldoret Municipality which formed approximately 1% of the sample size of the study. Mugenda and Mugenda (2003) argued that a 1% sample of the sample size can be used in the piloting of the instruments. The three districts used in the piloting covered urban-rural, rural and urban districts a situation found in the target population. Responses from the pilot study were used to improve on the content covered in the construction of questionnaire items, reframing of the interview questions and counter checking the observation check list.

3.5.2 Instrument reliability

The reliability of the research findings depends on the clarity of the research instruments used in collection of data. The findings from pilot study helped to determine the instruments' reliability. The responses from the pilot study were scrutinized by the researcher for consistency, relevance of the information captured and for the omissions of content. Pilot study findings helped to improve the instrument items before the actual research was done.

Ambiguous questions can lead to different interpretations by the participants to the same questionnaire items hence errors due to lack of consistency in the responses would have been committed. The questionnaire items were designed such that as more items as possible of equal kind and quality were used in each research instrument and in different research instruments, (Kerlinger, 2003).

3.6 Data collection procedures

The researcher sought permission to conduct research from the Ministry of Education before proceeding to the field. A research permit was obtained from the ministry and shown to the District education officers to allow the researcher do research in their respective districts. The questionnaires were hand delivered to all the identified schools by the researcher and a self addressed envelop was left for mailing them back after two weeks.

A face to face interview with the H/Ts was done at the time of delivering the questionnaires. The researcher requested to be taken around the school compound to have an opportunity to make the necessary observations. During the observations comments and marks were made appropriately to the check list so that anything relevant to the study observed did not escape being recorded.

3.6 Data analysis techniques

The data collected was edited and coded immediately the researcher received the questionnaires from the field on the basis of the objectives of the study. The editing helped to check on the completeness and logic of the answers, consistency and relevance of the responses to the items of the objectives set. Errors of omission in the filled up items of the questionnaire were addressed. The responses from the interview protocol were coded by allocating them to those categories of similar items in the questionnaires according to the strength of the reference or various points made.

Descriptive and inferential statistics were used during the analysis on every objective set using the computer package, Statistical Package for Social Sciences (SPSS). Qualitative methods of data analysis were used to describe and explain the relationships between the facts found in document analysis and the findings from the questionnaires administered, the interviews conducted with the H/Ts and observations made in schools.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This Chapter presents the report of the data gathered from the field as well as an analysis of the said data. The data was collected using questionnaires on two groups, Head teachers and Subject Panel Heads (SPHs) for the subjects; English, Mathematics, Kiswahili, Science and Social Studies. The five subjects are the ones examined in the Primary School Curriculum at class eight by the Kenya National Examinations Council (KNEC). The other method of data collection was by use of oral face-to-face interviews with H/Ts and observations in the sampled schools. The return rates of the questionnaires form the first part of the chapter.

The second part of the chapter presents an analysis of the findings of the study as captured from the questionnaires, interviews and observations. Analysis is done such that it conforms to the requirements of the survey study design. In qualitative paradigm analysis of the investigation responses are interpreted basing on the consistency of the facts and logical reasoning adduced to them.

4.2 The instruments return rate

A sample of 196 respondent units (Primary Schools) by random selection was used for the study. This sample was spread in all the provinces and districts in the

country with numbers in each district based on the weighted averages. The researcher visited 195 schools of the sampled schools. The research was done from September 2007 to June 2008 the period within which the security in the country was volatile due violence related to the results of the general elections of 2007. Thus 195 interviews with the H/Ts and observation reports were done. Total numbers of questionnaires to Head teachers were 195 and 975 to Subject Panel Heads. The questionnaires return rate are reported in table 4.1.

Table 4.1

Data on instrument response rates of the H/Ts and SPHs

Instrument category	*Expected*	*Returned*	*Percent*
Head teacher oral interview	195	195	100
Head teacher questionnaires	195	150	76.9
English subject head	195	139	71.3
Mathematics „	195	136	69.7
Kiswahili „	195	133	68.2
Science „	195	134	68.7
Social Studies „	195	142	72.8
Total	**1398**	**1029**	**73.3**

The total number of questionnaires delivered to the head teachers of primary schools was 195 out of which 150 were returned giving a return rate of 76.9

percent table 4.1. The return rate for the SPHs varied from subject to subject as shown in the table. Social studies had the highest return rate of 72.8 percent. On average the return rates of the questionnaires were more than 60.0 percent which was good enough (Kerlinger, 1973).

4.2 Data Analysis

The study aimed at achieving four objectives. To help achieve these objectives, four research questions were formulated. Research questions have been paraphrased to form themes for analyses.

4.3.1 The extent to which education commissions' recommendations have influenced the provision of quality education at primary school level in Kenya

Objective I - ***To determine how the recommendations of the education commissions' in Kenya established between 1987 and 2008 on the type of teaching personnel in primary schools have influenced planning for the provision of quality education at this level .***

Preparation to offer quality education will begin with the deployment of the personnel to administer and monitor various programmes within the schools. The other kind of preparation will be on enrichment in the managerial and pedagogical

skills of the teachers. The commissions made elaborate recommendations about these variables.

1- **government to ensure that female teachers are deployed evenly throughout the country to ensure that girls in schools have appropriate role models (Koech commission)**

An effort was made to determine the gender of the H/Ts and SPHs to check on how the recommendation has been implemented. The questionnaires yielded data on gender of H/Ts and SPHs as in table 4.2.

Table 4.2

Gender of the H/Ts and the SPHs in primary schools

	No response		*Male*		*Female*		*Total*	
	Freq.	*%*	*Freq.*	*%*	*Freq.*	*%*	*Freq.*	*%*
H/Ts	5	3.3	102	68.0	43	28.7	150	100.0
SPH English	5	3.5	60	42.6	76	53.9	141	100.0
SPH Mathematics	2	1.5	99	72.8	35	25.7	136	100.0
SPH Kiswahili	1	0.8	68	51.1	64	48.1	133	100.0
SPH Science	1	0.7	95	70.9	38	28.4	134	100
SPH Social studies	5	3.5	94	66.2	43	30.4	142	100
Total	**19**	**2.3**	**518**	**62.0**	**299**	**35.9**	**686**	**100**

The data in table 4.2 reveals that 102 or 68.0 percent of the head teachers in the sampled schools were male as compared to 43 or 28.7 percent female. The data on gender of the subject panel heads were not different. The majority of the SPHs were males except in English where 60 or 42.2 percent were males and 76 or 53.9 percent females. On average, there were 518 or 62.0 percent males and 299 or 38.0 percent females in administrative positions.

The results on the gender of the head teachers and subject panel heads raise the question of gender equality of the primary school teachers especially those in management and administrative positions. These figures do not reflect the implementation of the recommendation in the planning to deploy female teachers to ensure that girls in schools have role models in administrative positions.

Questionnaire items to the H/Ts captured data on the gender of teachers in the schools and responses gotten are in table, 4.3.

Table 4.3

Total number of male and female teachers in the sampled schools

No. of teachers	*Males*		*Females*		*Total*	
	Freq.	*%*	*Freq.*	*%*	*Freq.*	*%*
No response	7	4.7	6	4.0	13	4.3
Less than 5	54	36.0	27	18.0	81	27.0
Between 6 & 10	73	48.7	52	34.7	125	41.7
Between 11 & 15	11	7.3	41	27.3	52	17.3
Between 16 & 20	4	2.7	8	5.3	12	4.0
More than 20	1	0.7	16	10.7	17	5.7
Total	**150**	**100.0**	**150**	**100.0**	**300**	**100.0**

The data shown in table 4.3 from the H/Ts indicates that there fewer numbers of male teachers on the staff than female. The schools with 6 or more numbers of male teachers on the staff were only 89 or 59.4 percent as compared to 117 or 88.4 percent of female teachers on the staff. From this observation, government should encourage deployment of more male teachers as it did to female teachers in primary schools.

General comparison of the teachers' gender in the schools by the H/Ts yielded data in table 4.4

Table 4.4

Head teachers' comparison of the gender of teachers in the schools

	Frequency	*Percent*	*Valid Percent*
no response	5	3.3	3.3
more male than female	46	30.7	30.7
more female than male	92	61.3	61.3
equal number	7	4.7	4.7
Total	**150**	**100.0**	**100.0**

The table 4.4 readings concur with those in table 4.3. There were more female teachers teaching in primary schools given by 92 or 61.3 percent of the H/Ts.

Whereas the deployment of more female teachers in the schools seemed to be informed by the Koech Commission's recommendation, those in positions of responsibility who can be more influential as role models are not. Female teachers are the majority of the teaching staff in primary schools and for them to influence girls' participation; they should also be proportionally represented in leadership positions.

The other recommendations from the commissions on the characteristics of the teaching personnel in primary schools are;

2- **A supply of well qualified and highly motivated teaching force at all levels (Koech commission)**
3- **Regular in-service programmes for primary school teachers on pedagogical skills and management and administration courses for primary school head teachers as frontline equality control managers in their schools (Kamunge commission)**

Well qualified and motivated teaching staffs begin with the right identification of the head teachers and their deputies to supervise the curriculum. For a head teacher who is not well grounded in administrative duties and responsibilities, mobilization of resources to implement the curriculum maybe difficult. The concern helped to determine the academic and professional qualifications of the H/Ts and SPHs as proxies for ascertaining their competence in curriculum implementation and supervision and motivational levels of the teachers.

Academic and professional qualifications of the H/Ts from the questionnaires yielded the data in the tables 4.5 and 4.6

Table 4.5

Highest academic qualifications of the head teachers

	Frequency	*Percent*
no response	1	0.7
'O' level	99	66.0
'A' level	20	13.3
Diploma	14	9.3
University graduate	16	10.7
Total	**150**	**100.0**

The data in table 4.5 reveals that all the serving head teachers in the sampled schools had 'O' level academic qualifications and above.

The data obtained on the professional qualifications of the H/Ts is in table 4.6

Table 4.6

Professional qualifications of the head teachers

	Frequency	*Percent*
no response	1.0	0.7
p1	70.0	46.7
Dip. Ed	16.0	10.7
B.Ed	17.0	11.3
ATS	46.0	30.7
Total	**150.0**	**100.0**

Table 4.6 shows that 70 or 46.7 percent of the H/Ts were of P1 certificate qualifications. The other H/Ts were of higher professional qualifications.

The professional qualifications possessed by the H/Ts are adequate to enable them to interpret government policies and implement educational plans set. However, pre-training received by teachers may not be adequate to equip them with necessary skills and knowledge to deal with ever emerging issues and technological advancements in education (Bishop, 1997).

Head teachers and SPHs need frequent refresher and in-service causes. In-service courses are essential fora at which school managers sharpen their management skills. The government organizes short management courses like Primary School

Management (PRISM), Strengthening of Primary Education Development (SPRED), School Empowerment Programme (SEP) and Education Management Course (EMC) mainly organized by Kenya Education Staff Management Institute (KESI). Data recorded from the questionnaires on the attendance by the head teachers of these courses is in table 4.7.

Table 4.7

Head teachers' attendance of in-service courses on management and administration

	Frequency	*Percent*
PRISM	50.0	39.6
SPRED	14.0	11.1
SEP	15.0	12.0
all the first two	19.0	15.1
all the three	14.0	11.1
one and three	12.0	9.5
two and three	1.0	0.8
financial management	1.0	0.8
Total	**126.0**	**100.0**

From the data in table 4.7; H/Ts had attended various courses on management and administration of primary schools. The highly attended course was PRISM by

39.6 percent of the H/Ts.

It can be concluded that the H/Ts had adequate and sound managerial knowledge and skills to run the schools. The document analysis of the course contents of these various courses revealed that they covered most areas on school administration and curriculum supervisions. Education commissions' had recommended that head teachers or school managers should be in-serviced on management and administration of primary schools as frontline quality control managers.

Apart from in-service courses, H/Ts could also gain experience on school administration when first deployed as deputies. The experience gained by one as a deputy will form part of practical exercise opportunity. The deployment of deputy H/Ts to headship is another interpretation of the Koech commission's recommendation. The commission recommended that schools should be supplied with well qualified and motivated teachers at all levels.

To ascertain whether serving H/Ts were promoted from among the serving deputy H/Ts, questionnaire items for H/Ts were constructed to capture the information. The data obtained from the field are recorded in table 4.8.

Table 4.8

Head teachers service as deputy heads before promotion to headship

	Frequency	*Percent*
Yes	132.0	92.3
No	11.0	7.7
Total	**143.0**	**100.0**

The data in the table 4.8 shows that 132 or 92.3 percent of the H/Ts served as deputy head teachers for varied periods of time as shown in table 4.9.

Table 4.9

Period the head teachers served as deputies before being promoted to headship

	Freq.	*Percent*
less than two yrs	39.0	29.8
Between three and five yrs	51.0	38.9
Between six and ten yrs	32.0	24.4
more than ten yrs	9.0	6.9
Total	**131.0**	**100.0**

The statistics in table 4.9 indicated that H/Ts served for varied periods as deputies. The duration ranged 2 years to more than 10 years. The H/Ts who

served for a period between 3 and 5 years were 51 or 38.9 percent. Whereas a period of less than 2 years may not be good enough to gain experience in managerial skills, a period of more than 6 years is too long for one to wait for a promotion. Long period for one to serve as a deputy may be a de-motivator.

The physical presence of the H/Ts in the schools influences performance in the daily programmes by both teachers and pupils. It was expected that the H/Ts had been taught on how to delegate their duties and importance of being in school most of the time as part of managerial skill in the in-service. The data on the presence of the head teachers as observed and noted during the interview or delegation of the office duties to other teachers is in table 4.10.

Table 4.10

Head teachers' presence during the oral interview

	Frequency	**Percent**
H/T present	130.0	68.1
deputy head teacher	48.0	25.1
senior teacher	13.0	6.8
Total	**191.0**	**100.0**

The data in table 4.10 show that 130 or 68.1 percent of the H/Ts were present in their stations when the researcher visited the schools. Others were represented by

the deputies or senior teachers. As earlier mentioned, the presence of a head teacher in a school is very crucial. The head teachers as the highest office holders in the schools would set the tone, mood and pace of the schools. A proper tone, mood and pace would influence discipline and academic performances of the pupils which are some of the variables of quality education.

Although the requirement for the presence of H/Ts in schools is not a direct education commissions' recommendation, the content they went through during the in-service should have helped them on how to organize to attend meetings or schools to be run in their absence.

The deployment of highly motivated and well qualified teaching staff, and H/Ts with appropriate managerial skills should be reflected in the enrolments of the pupils in schools. According to the Education Management Information System (EMIS) report 2008, enrolments in schools between 1999 and 2008 have fluctuated as shown in tables 4.11 and 4.12.

Table 4.11

Primary Schools Gross Enrolment Rate (percentage), 1999-2008

Years	*Boys*	*Girls*	*Average*
1999	92.7	89.7	91.2
2000	111.3	88.0	99.6
2001	90.8	88.1	89.4
2002	92.9	89.6	91.2
2003	105.0	100.5	102.8
2004	108.0	101.6	104.8
2005	109.9	104.4	107.2
2006	109.3	105.5	107.4
2007	110.7	104.4	107.6
2008	**112.2**	**107.3**	**109.8**

Source: EMIS 2008

Table 4.12

Primary Schools Net Enrolment Rate

Years	*Boys*	*Girls*	*Average*
1999	68.8	68.8	68.8
2000	68.9	67.5	68.2
2001	77.3	75.8	76.5
2002	79.9	79.9	79.9
2003	85.5	83.1	84.3
2004	85.3	83.8	84.5
2005	84.3	81.3	82.8
2006	84.2	82.9	83.5
2007	94.1	89.0	91.6
2008	**94.6**	**90.5**	**92.5**

Source: EMIS 2008

From the two tables 4.11 and 4.12, it can be observed that the enrolments in the schools steadily increased within the period.

The variables on the preparation within the schools to offer quality education were regressed on the enrolments using the SSPS computer programme. The multiple regressions allowed the prediction of the school enrolments in the 11 years period from 1999 to 2008 from several variables of the H/Ts. The assumption made was that these variables related to each other linearly. The researcher was interested in three components of the output, the model summary, the ANOVA summary and the table of coefficients.

Table 4.13

Model Summary of the Regressions

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.320(a)	.103	.065	26.10821

a Predictors: (Constant), gender of head teacher, Period served as deputy head teacher, Experience as head teacher, formal education of the head teacher, Professional qualifications, courses attended on management and administration

R-squared coefficient of determination gives the proportion of the variance of the dependent variable that can be explained by variation in the independent variable.

From the table this value for all the predictors was 0.103. This means that approximately 10.3 percent of variations in the enrolments could be explained by the various characteristics of the head teachers used as predictors. The percentage is too small to make a significant difference. In fact in a multiple regression analysis it is difficult to be certain how individual independent variables affect the independent variable.

Table 4.14

The Analysis of Variance (NOVA) values

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	11157.362	6	1859.560	2.728	.015(a)
	Residual	97474.292	143	681.638		
	Total	**108631.654**	**149**			

a Predictors: (Constant), gender of head teacher, Period served as deputy head teacher, Experience as head teacher, formal education of the head teacher, Professional qualifications, courses attended on management and administration

b Dependent Variable: Average Enrolment all the years

The value of the significance is a very important to ascertain the predicted relationship among the variables. From the table the level of significant at 6 degrees of freedom was 0.015. The value is significant. Thus there is a

relationship between the H/Ts characteristics and school enrolments

Table 4.15

Coefficients of regression

Model	Un-standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	19.266	8.421		2.288	.024
education of the H/T	4.825	2.163	.183	2.231	.027
Professional qualifications	3.073	1.720	.153	1.786	.076
courses on management and administration	-.785	1.199	-.057	-.654	.514
Period served as D/HT	4.289	2.006	.173	2.139	.034
Experience as H/T	-.546	2.029	-.024	-.269	.788
gender of head teacher	**-4.501**	**4.267**	**-.085**	**-1.055**	**.293**

a Dependent Variable: Average Enrolment all the years

The coefficient of regression is where the actual prediction equation can be found. From the table the equation of regression line of the predicted relationship between the head teachers characteristics and enrolment is

$Y = a + bx_1 + cx_2 + dx_3 + ex_4 + fx_5 + gx_6$

The coefficient values are; a = 19.3, b = 4.8, c = 3.1, d = -0.8, e = 4.3, f = -0.5 and g = -4.5

Therefore,

Enrolment (Y) = $19.3 + 4.8x_1 + 3.1x_2 - 0.8x_3 + 4.3x4 - 0.5x_5 - 4.5x_6$

Where - x_1 is variation in academic qualification of the H/T,

x_2 is variation in professional qualification of the H/T

x_3 is variation in in-service courses attended by H/T

x_4 is variation in period served as deputy by H/T

x_5 is variation in experience gained as H/T

x_6 is variation on gender of the H/T

The preparation for provision of quality education at the primary school level goes beyond the concentration of training to H/Ts only. Other levels of teachers should equally be prepared and equipped on top of provision of teaching-learning resources. New technological changes demand for improved methods of subjects' content delivery. For example computers are now common gadgets in homes and other social places. Therefore to enable teachers to remain relevant in their subject delivery through new approaches to teaching, Koech commission recommended for regular in-service courses for teachers.

4-In-service programmes to be regularly organized for teachers to improve in their

pedagogical skills necessary as recommended by the Koech commission.

The inquiry on the in-service courses attended by the subject panel heads through the questionnaires as representatives of the teaching force in the schools are in table 4.16.

Table 4.16

Frequency of attendance of in-service courses in pedagogy by SPHs

Response	*English*	*Maths*	*Kiswahili*	*Science*	*S/studies*	*Total*	
	Freq.	*Freq.*	*Freq.*	*Freq.*	*Freq.*	*Freq.*	*%*
No response	26	37	25	19	39	146	21.3
None	38	14	31	35	35	153	22.3
Attended	77	85	77	80	68	387	56.4
Total	**141**	**136**	**133**	**134**	**142**	**686**	**100**

The data from the table 4.16 indicates that more than 50 percent of the SPHs of English, Mathematics, Kiswahili and Science attended in-service courses on pedagogy. The attendance by the Social studies SPHs was less than 50 percent. This observation can be explained. From the document analysis, social studies did

not benefit from the initial School based Teacher Development (SbTD) programme where the courses in pedagogy for the other subjects were given.

The information obtained from the SPHs on the attendance of in-service courses in pedagogy was collaborated with the attendance of workshops, seminars, subject panel meetings and exam setting. The concern was on sponsorship, facilitators and relevance of the courses to the subject area. The data found are in the tables 4.17 to 4.21.

Table 4.17

Frequency of attendance of workshops by SPHs

Subject/times	*one*	*%*	*two*	*%*	*three*	*%*	*More than three*	*%*	*total*	*%*
English	18	29.5	16	26.2	9	14.8	18	29.5	61	100
Mathematics	15	23.8	21	33.3	12	19.0	15	23.8	63	100
Kiswahili	20	33.3	19	31.2	9	15.0	12	20.0	60	100
Science	21	35.6	14	23.7	11	18.6	13	22.0	59	100
Social studies	18	31.0	14	24.1	6	10.3	20	34.5	58	100
Total	**92**	**30.6**	**84**	**27.9**	**47**	**15.6**	**78**	**25.9**	**301**	**100**

The attendance of workshops by the SPHs was not impressive for all the subjects. The expected responses from the SPHs were 683 however only 298 responded to the questionnaires. The difference shows that 56.4 percent of the SPHs did not attend any workshops. The comments on the relevance of the course during the workshop from those who attended indicated that 177 or 63.7 percent of the total SPHs found the workshops relevant.

In-service sessions are used to communicate to those who participate with new and latest skills and knowledge in their respective subject areas. In teaching, in-service courses are used to re-train the teachers, up date them on new teaching methods, and discuss changes in the syllabus. It is also a forum to share knowledge on new findings and discoveries in the subject content area. It was therefore important to find out whether in-service training opportunities were given to the teachers. The data on attendance of in-service courses by the SPHs is in table 4.18

Table 4.18

Attendance of in-service courses by the SPHs

Subject	*one*	*%*	*two*	*%*	*Three*	*%*	*>three*	*%*	*Total*	*%*
English	14	46.7	4	13.3	4	13.3	8	26.7	30	100
Maths	15	38.5	6	15.4	4	10.3	13	33.3	39	100
Kiswahili	8	27.6	6	20.7	7	24.1	8	27.6	29	100
Science	21	53.8	14	35.9	1	2.6	3	7.7	39	100
Social studies	8	42.1	2	10.5	4	21.1	5	26.3	19	100
Total	**65**	**41.7**	**32**	**20.5**	**20**	**12.8**	**37**	**23.7**	**156**	**100**

The attendance of in-service courses by the subject panel heads was not impressive either. Only 156 SPHs as compared to the possible 684 SPHs attended in-service course at least ones. This scenario is not good enough if such fora are to be used to equip the teachers with up to-date methods in teaching and sharing knowledge on new findings and discoveries in the subject areas. The comments by most SPHs 107 or 68.6 percent of those who attended rated courses as relevant to their career developments in the subjects.

Seminars are other sessions where short training to pass vital information on education matters, subject areas and discussion of emerging issues is done. The data on attendance of seminars by the SPHs is in table 4.19

Table 4.19

Frequencies on attendance of seminars by SPHs

Subject	*One*	*%*	*Two*	*%*	*Three*	*%*	*> three*	*%*	*Total*	*%*
English	17	29.8	20	35.1	4	7.0	15	26.3	57	100
Mathematics	13	28.9	18	40.0	3	6.7	11	24.4	45	100
Kiswahili	11	26.8	11	26.8	10	24.4	9	22.0	41	100
Science	15	26.3	17	29.8	12	21.1	13	22.8	57	100
Social studies	9	23.7	11	28.9	6	15.8	12	31.6	38	100
Total	**65**	**27.3**	**77**	**32.4**	**35**	**14.7**	**60**	**25.2**	**238**	**100**

The total number of SPHs who attended seminars in their subject areas was very few 238 or 34.8 percent of the total SPHs who participated in the study. Considering the benefit to be gained from seminars where teachers come together to share experiences and learn from each other, the low attendance may not reflect well in terms of initial government expectations to re-train the teachers.

From the documents analysis of the materials used in the SbTD programme, the content was very enriching and relevant to trends in primary school education. The richness of the materials in the modules used in the SbTD training coupled with the vast experience of the TAC tutors who were the facilitators during the

programme made the seminars very beneficial to the participants as seen in their responses. The biggest percentage from those who attended seminars, 143 or 64.4 percent rated the contents covered as relevant to the subject pedagogical skills development.

The objective of SPRED 3 module was to equip the Key Resource Teachers (KRTs) with the knowledge and skills on how to facilitate subject panel meetings at the school level. The other panel meetings were to be organized at zonal and district levels. The composition of the panelists at the school level was supposed to be the KRTs and the teachers handling the specific subject in the school. It was prudent to know the attendance and comments about subject panel meetings at the school level. The responses from the SPHs on these are in the tables 4.20.

Table 4.20

Response of SPHs on the organization of the subject panel meetings in the schools

Subject	*one*	*%*	*two*	*%*	*Three*	*%*	*> three*	*%*	*Total*	*%*
English	6	13.0	15	32.6	9	19.6	16	34.8	46	100
Maths	14	32.6	5	11.6	5	11.6	19	44.2	43	100
Kiswahili	4	8.7	14	30.3	3	6.5	25	54.3	46	100
Science	10	21.3	17	36.2	6	12.8	24	51.1	47	100
Social studies	10	20.8	6	12.5	2	4.2	32	66.7	48	100
Total	**44**	**18.1**	**47**	**19.3**	**25**	**10.3**	**116**	**47.7**	**243**	**100**

From table 4.20 on organization of the subject panel meetings, only 243 or 35.5% of the expected SPHs indicated to have organized the subject panel meetings at least ones since they were trained. This is a very poor indication especially considering that SPHs were mostly drawn from among KRTs. The role of KRTs is to help develop other teachers at the school level in the curriculum implementation. The internal school seminars were meant to help teachers within a subject department to improve in subject pedagogy and making teaching-learning resource materials suitable to the level of learners. The comments from the SPHs who organized them show that the meetings were relevant and

enriching. Thus, 161 and 56 of the SPHs who responded to this item found the meetings relevant and enriching respectively.

Examinations have been blamed for contributing immensely to wastage in education system. Since pupil assessment is one of the essential activities in a learning institution, schools can assist to alleviate the problem of wastage by assisting teachers to prepare good internal examinations. In-service courses should cover on examinations setting and marking. An inquiry on this exercise gave the results tabulated in tables 4.21.

Table 4.21

Frequencies of attendance of courses on examination setting and marking by SPHs

Subject	*one*	*%*	*two*	*%*	*Three*	*%*	*> three*	*%*	*Total*	*%*
English	11	22.4	21	42.9	4	8.2	13	26.5	49	100
Mathematics	6	18.2	5	15.2	5	15.2	17	51.5	33	100
Kiswahili	3	9.4	4	12.5	6	18.8	19	59.4	32	100
Science	7	16.3	16	37.2	4	9.3	16	37.2	43	100
Social studies	7	15.9	15	34.1	2	4.5	20	45.5	44	100
Total	**34**	**16.9**	**61**	**30.3**	**21**	**10.4**	**85**	**42.3**	**201**	**100**

The attendance of courses on examination setting and marking by the SPHs was very poor. Only 201 or 29.4 percent of the expected SPHs had attended at least a course on examination setting and marking. A large percentage 70.6 did not respond to the item. However, comments from those who participated in such meetings show that the courses on examination setting and marking were relevant.

In conclusion, findings on objective number one show that the government has shown an effort and commitment in implementing the education commissions' recommendations on planning for the provision of quality education. The government has addressed this concern by training head teachers on managerial skills through PRISM, SPRED (KRTs in pedagogical skills) and Education Management Course (EMC) conducted by KESI. However, this equipping of school administrators with necessary skills, knowledge and attitudes has not kept pace with the demands. Very few teachers had attended workshops, seminars and in-service courses.

There was an un-equal distribution of female teachers in administrative positions. Among the teaching staff, women formed the majority. Government should, based on Koech commission's recommendations, appoint more women in administrative positions. Lack of motivation and poor attitude by some of the teachers was cited as one of the causes of poor quality education. This was revealed by one of the H/Ts in a Nairobi primary school where some teachers are

said to report very early for duty in the morning and leave very late in the evening but cannot attend to pupils until after 8.20a.m and before 3.10p.m these being official hours for teaching in primary schools.

4.3.2 Preparation of schools to implement recommendations from education commissions

Objective 2 - ***To determine the extent to which primary schools prepare to offer quality education as recommended by the education commissions between 1987 and 2008.***

Schools get involved in preparation of quality education by sourcing for resource materials necessary in the teaching-learning process. Sourcing of teaching-learning resources including human resources is the responsibility of schools through the school management. Adequacy of the teaching staff and teaching-learning resources affect quality education. These concerns were raised in the education commissions' recommendations as;

4- **Primary schools be provided with adequate science facilities, equipment and materials for effective teaching of science, (Kamunge commission)**

5- **Local communities and parents associations should be encouraged to provide primary schools with libraries and adequate reading**

material, (Kamunge commission)

6- **There should be active involvement of parents and communities in the management of schools to ensure the elimination of conflict between school and home values and practices, (Koech commission)**

7- **Adequate supply of qualified and highly motivated teachers**

Based on these recommendations, schools are expected to prepare to acquire adequate resources both human and physical for the learners. The major resource input into education system is the teaching staff. During the interview with H/Ts data on the adequacy of teachers in the sampled primary schools was obtained as presented in table 4.22

Table 4.22

Head teachers' comment on the adequacy of the teaching staff in the schools

	Frequency	*Percent*
Adequate	40	20.5
not adequate	156	79.5
Total	**195**	**100.0**

The data in table 4.22 show that there was a serious under staffing in the schools as recorded during the oral interview with the H/Ts. This was reported by 156 or

79.5 percent of the H/Ts.

To alleviate the problems of under staffing, schools coped by hiring teachers paid by the school committees.

Table 4.23

Head teachers' report on employment of extra teachers by school management committees

	Frequency	*Percent*
Employed	91	46.6
not employed	96	49.2
Volunteers	8	4.1
Total	**195**	**100.0**

The data in table 4.23 show that 91 or 46.6 percent of the H/Ts interviewed employed PTA teachers to alleviate the acute shortage. Oral responses from the H/Ts indicated that lack of funds and non corporation from some parents has aggravated the problem in some schools.

The inadequacy of teachers in primary is a concern even to the ministry of education. According to EMIS report 2007, the sector experienced a short fall in teachers resulting in an increase in Pupil:Teacher Ratio (PTR) from 38.7:1 in

2003 to 42.9:1 in 2007. During the same period, number of teachers decreased from 176572 in 2003 to 173153 in 2007 (ROK, Education statistical booklet 2003-2007).

Provision of science equipment and facilities was a recommendation of Kamunge commission. The commission argued that teaching of mathematics and science in primary school education curriculum gives a firm foundation to the pupils for future education and training in science and technology. Therefore necessary provision of the resources for their effective teaching and learning is imperative. The study therefore sought to determine the source and extent of supply of these items in sampled schools. The data on the source of science equipment in schools is given in table 4.24

Table 4.24

Response of the H/Ts on the source of science equipment

	Frequency	*Percent*
Government	46	66.7
Parents	10	14.5
Community	1	1.4
well wishers	2	2.9
Sponsors of schools	8	11.6
both government and parents	2	2.9
Total	**69**	**100.0**

Provision of science equipment in primary schools was vey poor. Only 69 H/Ts indicated to be having science equipment in the school. Of the ones who indicated to have acquired the equipment 66.7 percent were supplied by the government. Education commission recommended that primary schools should have a science kit to be used in the teaching of science. The oral interview with the H/Ts on the availability of this item (science kit) gave the data in table 4.25.

Table 4.25

Head teachers' report on acquisition of science kit for the schools

	frequency	*Percent*
Provided	17	8.7
Not provided	177	90.8
Total	**195**	**100**

Table 4.25 shows that the 177 or 90.8 percent did not have the science kit as recommended by the Kamuge commission. The H/Ts complained that they did not have a vote head for this item under the FPE funding and only depended on the government or well wishers to donate.

Other facilities for use in schools can equally affect quality of education offered. The adequacy of the classrooms was another input of concern to the researcher as it impacts on quality education. From the data in the statistical booklet 2003-2007,

number of classrooms in public primary schools increased from 200649 in 2003 to 234666 in 2007 (ROK, Education statistical booklet 2003-2007). The MOE and Constituency Development Fund (CDF) as a management of devolved planning have been investing heavily in the infrastructural development in primary schools through Kenya Education Sector Support Programme (KESSP). Among the projects undertaken is provision of classrooms. The responses on adequacy of the classrooms for the pupils in the sampled schools yielded data in table 4.26

Table 4.26

Head teachers' response on adequacy of classrooms in the schools

	Frequency	*Percent*
Adequate	66	33.8
not adequate	129	66.2
Total	**195**	**100.0**

The data in table 4.26 confirms that most of the H/Ts 129 or 66.2 percent did not have adequate classrooms to accommodate their pupils. The researcher who visited some of the classrooms to ascertain the situation by himself confirmed this. In a school in Mt. Elgon district, the classes were too congested to the extent that teachers preferred to have pupils sitting on the floor to save on the space taken up by the desks though the desks were not enough either. The enrolments in the school within the same period 2000 - 2007 fluctuated dropping from 884 in

2000 to 843 in 2007. However, with the inception of FPE the enrolments were expected to increase as observed in all schools in other districts.

Although Mt. Elgon district had security lapse at the time of the study in 2007, lack of enough classrooms is likely to have contributed the drop in enrolments. Though the difference is only a drop of 41 pupils, given the country's crude birth rate (new born babies per 1000 population) at the time was 41.3 and Mt. Elgon rate was 49, (ROK 2OO7), it was expected that enrolments in schools should have risen not to drop.

The scarcity of the classrooms in some schools forced the pupils to learn under trees or go to school in shifts as witnessed in some schools in Malindi, Kilifi, Kuria, Suba and Narok Districts. It was also noted that though some schools had more than enough classrooms the inadequacy of teaching staff have forced some schools to put pupils at different class levels together 'match up of classes' in one class. The practice caused serious congestions in classes as observed in almost all the schools visited. Therefore schools seemed not to be responding well in the provision of learning space to deserving children in primary schools casting a doubt on their preparedness as recommended in the Kamunge report.

The text book supply to schools under the FPE is quite impressive. From the document analysis by 2002/2003 financial year, primary schools had

approximately 9 million text books for five core subjects this increased to 47 million in 2007/2008 financial year. The text book to pupil ratio has therefore increased from 1:3 in 2003 to 1:2 in 2007 (ROK, Education statistical booklet 2003-2007). The situation found in schools was no different as shown in table 4.27

Table 4.27

Confirmation by SPHs on the adequacy of the textbooks supply in the schools

	Eng.		*Maths*		*Kis.*		*Sci.*		*S/Stud.*		*Total*	
	Freq.	*%*	*Freq.*	*%*	*Freq.*	*%*	*Freq.*	*%*	*Freq.*	*%*	*Freq.*	*%*
Poor	1	0.7	1	0.7	3	2.3	3	2.2	0	0	8	0.1
Satis.	26	18.4	21	15.4	17	12.8	21	15.7	15	10.6	100	14.6
Fair	29	20.6	29	21.3	30	22.6	36	26.9	31	21.8	155	22.6
Good	50	35.5	58	42.6	63	47.4	46	34.3	59	41.5	276	40.2
Excel.	27	19.1	19	14.0	15	11.3	21	15.7	26	18.3	108	15.7
No res.	8	5.7	8	5.9	5	3.8	7	5.2	11	7.7	39	5.7
Total	**141**	**100**	**136**	**100**	**133**	**100**	**134**	**100**	**142**	**100**	**686**	**100**

There was adequate supply of text books in the schools from the responses of the SPHs reported in table 4.27. In all the subjects, the supply was above 70.0 percent. Whereas the schools reported to have more than enough class textbooks, there was a problem with storage.

There was a serious problem on storage of books. It was observed that books were kept all over including H/Ts offices and staff rooms. Scarcity of storage facilities

witnessed touched on the preparedness of the schools in implementing education commissions' recommendations on supply of books. Although from the document analysis government had given money to schools to purchase wooden or metallic boxes for book storage, rooms where those boxes could be kept was a problem in many schools. The responses on storage of the text books by the head teachers and subject panel heads are given in tables 4.28 and 4.29

Table 4.28

Availability of bookstores as observed and captured during the interview

	Frequency	*Percent*
bookstore available	94	48.2
books issued to pupils straight	5	2.6
books kept in the head teachers office	95	48.7
books kept in class cupboards	1	.5
Total	**195**	**100.0**

Table 4.28 gives the responses gotten from the head teachers during the oral interviews on storage of textbooks in the schools. From the responses, schools kept textbooks at various places ranging from H/Ts offices, deputy H/Ts offices, staff rooms to the special rooms (books store). The data indicated that 95 or 48.7 percent of the H/Ts kept books in their offices with a similar number 94 or 48.2 percent of the H/Ts keeping them in the special rooms (books store). As observed,

many of the rooms quoted as stores were the deputy head teachers' offices. It was also learned that deputy head teachers were also the ones in charge of the text books in the schools. To guarantee safety and easy management of the books, it was preferable to be kept at the deputy Head teachers' offices.

The responses on the storage space by the SPHs to counter check the responses given by the H/Ts are in table 4.29.

Table 4.29

The SPHs comments on the availability of storage space for textbooks in the schools

	Eng.	*Maths*	*Kis.*	*Sci.*	*S/stuies*	*Total*	
	Freq.	*Freq.*	*Freq.*	*Freq.*	*Freq.*	*Freq.*	*%*
Poor	18	14	14	16	18	80	12.1
Satis.	30	26	27	25	17	123	18.6
Fair	26	35	28	43	38	190	28.7
Good	40	41	45	32	53	211	31.9
Excel.	16	16	17	14	12	75	11.3
Total	**130**	**132**	**131**	**130**	**138**	**661**	**100**

The responses by the SPHs on the availability of bookstore places in the schools table 4.29 shows that, 393 or 59.5 percent of the SPHs rated the availability as just

fair. The confusion concerning whether the deputy head teachers' offices were bookstores or administrative offices remained high in the schools. This was witnessed when the researcher requested to be shown the bookstores but they ended up showing the deputy head teachers' offices where books were stacked. Many schools tended to solve the problem of lack of storage provision by issuing books directly to pupils through the parents or directly to the pupils table 4.30

Table 4.30

Policy on book issuance put in place in sampled schools

	Frequency	*Percent*
issued and collected every term	46	23.6
teacher carries them to the lesson	4	3.1
Beginning of yr and collected end yr	140	71.8
not at all	3	1.5
Total	**195**	**100.0**

The results indicated that 140 or 71.8 percent of the H/Ts interviewed gave the books directly to the pupils to use for the whole year table 4.30. Textbooks issuing in the lower primary classes, three, two and one was on daily basis during the lessons. There were however some few cases where the children these levels were allowed to keep the books for the whole year. The problem was also acknowledged by the government as observed during document analysis. It is

estimated that current rate of loss or damage to the purchased books stands at 11.0 percent with an average book costing Kshs. 226 (ROK 2007).

Inadequacy in the number of classrooms and storage space for the text books were not the only handicaps in maintenance of facilities that affect quality education in the schools visited. The other important facilities were also in short supply including libraries. The Kamunge commission recommended an establishment of libraries and adequate reading materials in primary schools.

Data on the provision of libraries in the sampled schools is in table 4.31

Table 4.31

Observed level of provision of library rooms in primary schools

	Frequency	*Percent*
library provided and used	38	19.5
library not there	157	80.5
Total	**195**	**100.0**

On the provision of library room which is a crucial component when it comes to development of independent reading among learners, 157 or 80.5 percent of the schools visited did not have library rooms established table 4.36. The rooms meant to be libraries remained closed and used as bookstores where old textbooks

and other references were kept with no reading spaces available.

Preparations by schools to offer quality education go beyond acquisition of the physical facilities. The state of maintenance of those facilities like the classroom floors, the classroom shutters (both doors and windows), solid waste disposal facilities, water supply to the schools, footpaths and playing grounds are important too.

The data on the state and provision of shutters to classrooms is in table 4.32.

Table 4.32

Researcher's observation of the provision of shutters to classrooms

	Frequency	*Percent*
not provided both door and windows	15	7.8
provided doors only	13	7.8
provided both doors and windows	63	32.3
some have shutters	102	52.3
Total	**195**	**100.0**

The observation by the researcher on the availability of the shutters recorded in 4.32 shows that 128 or 65.7 percent of the schools visited had classrooms fitted

with either doors or windows only. Very few schools 63 or 32.3 percent had both doors and windows fitted in all the classrooms.

The conditions of the floor surfaces were not good either table 4.33.

Table 4.33

Researcher's comment on the condition of the floor surfaces in the classrooms

	Frequency	*Percent*
bad (not cemented)	15	7.7
poor (cemented but needs repair)	19	9.7
Fair	112	57.4
Good	49	25.1
Total	**195**	**100.0**

The conditions of the floor surfaces as observed by the researcher were poor. The data in table 4.33 shows that only 49 or 25.1 percent of the schools visited had good floor surfaces. The rest of the schools had floor surfaces in bad state of some kind. The floors which were observed as fair had surfaces though cemented; some areas had pilled off or chipped off.

The general appearance of a school may affect the participation rate of pupils as witnessed at a senior primary school in Nairobi province. The classroom floors were in bad shape and needed an urgent attention. The pupils' population had dropped from 785 in 2000 to 626 in 2008. It was learned during the interview with H/Ts that parents preferred to take their children to schools which were well maintained in terms of physical facilities.

The parents however should be sensitized and encouraged to improve the physical infrastructures in their respective schools. The researcher was interested to find out the parents' interest and involvement in school developments since the inception of FPE in 2003. Table 4.34 gives the findings from the head teachers' experience.

Table 4.34

The H/Ts comments on the parents' involvement in school academic and developments after

FPE implementation

	Frequency	*Percent*
no change	17	8.7
parents now not bothered	104	53.3
are more interested now	74	37.9
Total	**195**	**100.0**

The data on the involvement of parents in the school affairs on development and pupil academic progress yielded the data in table 4.34. The table shows that 104 or 53.3 percent of the H/Ts interviewed lamented that parents have lost interest in school development and are now not bothered with school matters.

The majority of the parents have lost interest even in the academic performance of their children. The number of the H/Ts who reported that parents are more concern 74 or 37.9 percent commented that they showed greatest interest during the annual general meetings or during the election of the SMC office bearers. The parents therefore have failed on their part to contribute towards the provision of the schools' infrastructures and developments, the state deplorable in many schools visited. Kamunge commission had recommended shared responsibility in the provision of education between the government and parents and communities.

The state of the school facilities was cross checked by an observation schedule appendix E. The scoring in the observation followed the key; Poor when the items were not observed, fair when the items were observed but not matching with the school population, good when the items observed seemed enough for the population and very good or excellent when they seemed in excess. The results are in table 4.35.

Table 4.35

Researcher's comments on the schools' provision of facilities

	Frequency	*Percent*
Poor	5	2.6
Fair	115	59.0
Good	63	32.3
very good	12	6.2
Total	**195**	**100.0**

Data in table 4.35 shows that many schools had fewer facilities than the enrolments. It was observed that, 115 or 59.0 percent of the schools visited did not have enough facilities.

The other facility of concern was furniture used in the classrooms. The data obtained from the observations is in table 4.36.

Table 4.36

Types of furniture used in classrooms

	Frequency	*Percent*
Benches	2	1.3
benches with attached tables	106	71.1
single chairs and single desks	39	26.2
None	1	0.7
Missing value	1	0.7
Total	**149**	**100.0**

The values in table 4.36 show that majority of the H/Ts 106 or 71.1 percent provided benches with attached tables to the pupils. The sharing ratios of desk to pupils are in table 4.37.

Table 4.37

Average sharing ratio of the desk : pupils

	Frequency	*Percent*
1:1	20	13.3
1:2	29	19.3
1:3	82	54.7
1:4	19	12.7
Total	**150**	**100.0**

The H/Ts response on sharing ratio of desk : pupils indicated that 1:3 was the most common ratio in the schools as indicated in table 4.37 given by 82 or 54.7 percent of the H/Ts. The observations made by the researcher contradicted the responses given by the H/Ts. A majority of the pupils in lower primary schools shared the desks at the ratio of 1:4. The SPHs commented that such arrangements do not favor development of good handwriting skills and academic confidentiality among pupils especially during examinations. The data on other classroom supplies for teaching and learning purposes is summarized in table 4.38.

Table 4.38

The H/Ts report on the other classroom supplies for teaching-learning purposes

	Freq.	*Percent*
1 black board	25	17.4
2 Library	10	6.9
3 bookstore	9	6.3
4 classroom cupboards	1	.7
5 teachers table and chair	23	16.0
6 science kit	5	3.5
1, 4, 5,	71	49.3
Total	**144**	**100.0**

Table 4.38 values show that most of the classrooms had short supply of the facilities required in the classrooms. The chalkboards, classroom cupboards and teachers' chairs and tables (responses 1, 4, and 5) were indicated by 71 or 49.3 percent of the H/Ts. The other supplies were in short supply.

Koech commission recommended for an active involvement of parents to furnish school plants as beneficiaries of education under cost-sharing policy. The first involvement by the parents would be to support in furnishing the school plant with adequate resources. Under the arrangement of devolved school management system, in cases where the schools' plants are inadequately furnished, the involvement of the parents and competence of those who are supposed to mobilize their acquisitions are in doubt. The ability of the School Management Committee (SMC) to mobilize parents depends on their persuasive abilities more particularly that of the chairperson. Success of a school committee in mobilizing parents to provide the much needed resources will depend on the sacrifices the members will make to avail themselves in schools. This however depends on the kind of profession and personal touch of such committee members. The profession of the SMC chairperson also influences the performance of their duties in school. The data on the professions of the SMC chairpersons is in table 4.39.

Table 4.39

The H/Ts reports on the professions of school committee chairpersons

	Frequency	*Percent*
Educationist	22	16.2
Business	42	30.9
church minister	3	2.2
Administrator	26	19.1
None	5	3.7
medical practitioner	7	5.1
Farmer	31	22.8
Total	**136**	**100.0**

The professions of the SMC chairpersons as indicated in table 4.39 varied widely. The business persons were highest in number. Because of the nature and commitment of the SMC chairpersons, the school development plans preparation and execution seem to have been left to the school H/Ts.

Planning and execution of the development plans for the schools were left to the H/Ts. The comments by H/Ts about who are the initiators of development plans in the schools are in table 4.40

Table 4.40

Comments by H/Ts on the initiators of school plans

	Frequency	*Percent*
head teacher	113	58.0
Head teacher and staff	62	31.8
parents AGM	3	1.5
SMC	3	1.5
Manager	14	7.2
Total	**195**	**100.0**

From table 4.40, 113 or 58.09 percent of the H/Ts initiated the school development plans.

In conclusion, though efforts have been made in the schools to prepare to offer quality education the demand has outstripped the supplying capacity. From the data presented here the government has remained the sole supplier of the school development requirements. The parents' commitment to make sure that schools have adequate supplies that are well maintained was lacking. The science equipment and facilities were in short supply especially the science kit. These then puts doubt on the schools' preparation to offer quality education in primary schools. Planning to offer quality education through adequate school supplies or intervention of school factors seem not to be informed by the education

commissions' recommendations. The government should come out clear through issuance of circulars and policy papers on the role to be played by the parents as recommended by the commission reports.

4.3.3 Level of provision of educational resources and facilities

Objective 3 - ***To asses how the level of provision of educational resources and facilities are influenced by the education commissions' recommendations since 1987***

This objective looked at the recommendations for adequate supply of teaching-learning resources in detail including provision of supply of additional facilities needed by pupils in schools. Though the education commission of 1988 (Kamunge) made recommendations suggesting cost-sharing in the provision of education between the government and beneficiaries of education, the high number of legible primary school age going children out of school made the government to re-examine this policy as recommended by the Koech Commission of 1999. At the time of the review by Koech, there were numerous levies introduced in the schools among them; watchman fee, chalk and fee for the pens for the teachers, building fund, games fee, desks and a levy for teaching-learning resource material including stationery for teachers' lesson preparations. The Koech commission recommended the provision of quality and adequate teaching-

learning resource materials at all levels by the government.

The implementation of the FPE in 2003 though through a political pronouncement coincidentally responded to the Koech commission recommendation. The government has continued to pay teachers' salaries and other remunerations, on top of the provision of the teaching-learning resource materials under the FPE. Under this FPE programme, each primary school pupil is budgeted for Kshs. 1,020.00 per year by the government for purchase of textbooks, stationery and balls. The other money is to be used to pay for water and electricity bills and the salary for sub-ordinate staffs mainly watch men, accounts clerk/secretary and librarian. This gesture made a very big change in the enrolments of pupils at all levels in primary schools between 2002 and 2003 and subsequent years in the sampled schools as shown in table 4.41

Table 4.41

Enrolment of pupils in sampled primary schools between 2000 and 2008

Class/year	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*Total*
2000	8162	7906	8045	8182	8417	7796	7909	6920	63337
2001	7655	7686	7582	8177	8067	7872	8158	7244	62441
2002	8368	8183	8218	8452	8492	8489	8554	7939	66695
2003	11799	9612	9588	9573	9313	9650	9397	8252	77184
2004	11456	11111	9478	10042	9660	9663	9944	8014	79368
2005	10502	10511	10573	10159	9857	10236	10196	8155	80189
2006	10761	10186	10577	11267	11249	10348	10665	8181	83234
2007	10767	10318	10367	11342	11430	10642	11614	8824	85304
2008	**7830**	**7756**	**7811**	**8368**	**8717**	**8318**	**8342**	**6041**	**63183**

From the table 4.41 data, the pupil enrolments in the schools in class I increased from 8368 in 2002 to 11799 in 2003 a percentage increase of 141. The enrolments on overall increased from 66695 in 2002 to 77184 in 2003 a percentage increase of 115.7 in all the classes. This trend was consistent in 2004, 2005, 2006 and 2007. The enrolments dropped between 2007 and 2008 in all the classes. The enrolments dropped from 10767 in class I in 2007 to 7830 in 2008 on overall, the enrolments dropped from 85304 to 63183 between the two years 2007 and 2008. The drop may be attributed to lapse in security in the country in January 2008. Therefore political stability is a factor in quality education as witnessed.

The other commissions' recommendations touching on provision of teaching-learning resources are;

8- **Schools should be provided with adequate reading materials for effective teaching and learning, (Kamunge commission)**

9- **All parents with children of primary school going age (6-13 year olds) are required to send such children to school and retain them their for the whole duration of primary education, (Kamunge commission)**

10- **Parents who send children to boarding primary schools pay for the full cost of boarding and feeding, (Kamunge commission)**

11- **Government to strengthen the existing and create new partnerships for increased support of education (Koech commission)**

12- **Mechanisms should be found for the provision of basic education for all and strengthening of coordination in mobilizing and encouraging education providers (Koech commission).**

Documents analyzed indicated that the government policy on financing of education has shifted from higher to basic education (primary and secondary). This trend seems to be in response to earlier education commissions'

recommendations. Modalities especially on disbursement of the funds are affecting the quality of education delivered at those levels. The delay in disbursement of funds to schools affects the supply of the necessary inputs into education which in turn affects participation of the learners in schools and delivery of quality education.

To asses the level of provision of educational resources and facilities in the sampled schools, the SPHs were asked to comment on the supply and adequacy of the supplementary teaching-learning resources. The reactions by the SPHs on the provision of reference books are in table 4.42

Table 4.42

Subject Panel Head teachers' response on the provision of reference books in the schools

Response	*Eng.*	*maths*	*Kisw.*	*Sci.*	*S/stu.*	*Total*	*%*
Satisfactory	19	11	15	17	13	75	11.1
Fair	25	23	21	16	21	105	15.6
Good	60	59	71	69	73	332	49.3
Excellent	33	40	25	29	33	160	23.8
Total	**137**	**133**	**132**	**131**	**140**	**673**	**100**

The supply of reference books as indicated in table 4.42 in all the subjects was

rated as good and above was by 492 or 73.1 percent SPHs. In general therefore the SPHs were satisfied with the provision of the reference books in the schools.

The other concern was on availability of equipment and teaching aids for use in practical demonstrations during teaching for various subjects. The equipment referred to ranged from the use of radio, tape recorders, computers, building blocks, wire nets and other materials for simple classroom demonstrations. The responses given are in table 4.43

Table 4.43

The SPHs comments on availability of material for practical or demonstrations purposes

Response	*Engl.*	*Maths*	*Kisw.*	*Sci.*	*S/stud.*	*Total*	*%*
Poor	27	19	21	28	21	118	18.0
Satisfactory	37	35	33	41	24	170	26.0
Fair	30	45	31	34	52	192	29.4
Good	30	26	36	22	29	143	21.9
Excellent	6	8	5	2	12	33	5.0
Total	**130**	**133**	**126**	**127**	**138**	**654**	**100**

The table 4.43 readings show a uniform rating of the materials for use in practical and demonstrations. The rating at satisfactory and below was by 288 SPHs giving

a percentage of 44.

Computers were singled out among the other equipment since modern technology demands of the learners in a school system to be computer literate. An interview with the H/Ts on use of computers by the pupils gave data in table 4.44

Table 4.44

Provision of computers for pupils' use as indicated by head teachers

	Frequency	**percent**
No response	4	2.1
Provided	28	14.7
Not provided	167	87.4
Total	**191**	**100.0**

From table 4.44 it can be seen that 87.4 percent of the H/Ts are not impressing upon computer literacy to the pupils. Eighty seven point four percent of the H/Ts or 167 H/Ts did not have computers in their schools for use by the pupils.

The other supply included the teaching-learning resources like wall maps, charts, manila paper drawings and newspaper cuttings which also enhance teaching-learning process largely. Some pupils would fail to grasp concepts taught in class easily due to lack of imaginations or appropriate diagrams to reinforce the

concepts learned. The inquiry on the availability of these vital teaching materials in schools from the H/Ts questionnaires yielded data in table 4.45

Table 4.45

The H/Ts report on supply of teaching-learning resources (wall maps, charts, etc)

Response	*Engl.*	*Maths.*	*Kisw.*	*Sci.*	*S/stud.*	*Total*	*%*
Poor	9	5	14	1	7	36	5.4
Satisfactory	29	31	29	34	21	144	21.8
Fair	43	41	41	43	44	212	32.1
Good	43	47	37	40	50	217	32.8
Excellent	8	10	8	9	17	52	7.9
Total	**132**	**134**	**129**	**127**	**139**	**661**	**100**

The supply of the teaching aids and materials ranged between satisfactory, fair and good. The inquiry did not differentiate explicitly among the H/Ts on this item as indicated in table 4.45. In total 392 or 59.3 percent of the SPHs rated the supply as adequate. The observation made in some of the classes visited confirmed short supply of these items. Many classroom walls remained bare with no wall maps and other drawings that could facilitate teaching.

The inadequate supply of the teaching aid items affects the delivery of quality

education in classrooms especially among pupils with various kinds of impairments or disabilities since the government policies are advocating for integration of such children into regular schools and programmes to remove discrimination and stigma among children with disabilities.

The education commissions' recommendations on this integration are;

13- Selection of children for integrated programmes to be based on proper educational assessment to determine the ability of such children to cope with rigours of integration.

14- Only those children who require minimal assistance be integrated in regular schools and classes with appropriate personnel, assistive learning/teaching aids, and equipment.

15- School support structures and prior sensitization of the integrating school be done and assured. Though computers are not among the special equipment recommended by the two commissions to be supplied to primary schools, it is imperative that they should captured in the planning of quality education which is affected by technological changes.

It was found through document analysis that schools with integrated learners benefit from government funding at the rate of ksh.2000 per child per year for the purchase of special equipment and teaching-learning materials. Other teaching-learning aids like paper drawings, schools are expected to purchase manila papers using money from the materials vote head. The individual subject teachers are expected to use the papers to make the teaching aids based on the level of learners' experience and mental abilities. An observation in the classrooms did not reflect this expectation. The teaching aids missed in a majority of the classrooms. Many classroom walls were bare except in the nursery school section and the special units where established. The teaching aids are supposed to reinforce teaching in classrooms divorcing learning from abstractions.

The H/Ts raised the concern on the delay to identify the pupils' impairments early if they are to benefit from the integrated education arrangement. The kind of impairments that could be integrated includes; low learning capacity, low vision and even speech development which affect the learners adversely. For such learners the teaching aids is crucial in their mental development.

The government under the FPE is supplying most of the teaching learning resource materials and where found in short supply the parents and other stakeholders are to assist. The research sought to find out from the H/Ts the

source of various other resource materials used in schools. The H/Ts responses through the questionnaires are in tables that follow.

Table 4.46

Providers of writing materials used by pupils

	Frequency	*Percent*
Government	105	71.4
Parents	7	4.8
well wishers	1	0.7
Sponsors	4	2.7
both government and parents	30	20.4
Total	**147**	**100.0**

From the data in table 4.46 on the source of writing materials used in schools, most of the H/Ts stated that writing materials in their schools are provided by the government. Such a response was given by 105 out of the 150 respondents or 71.4 percent. The H/Ts rated sufficient the two hundred shillings sent by the government per child each year to purchase the writing materials.

Although the government under the FPE programme is financing the supply of text books in all public primary schools in Kenya the researcher found it necessary to seek opinion on this matter from the H/Ts and SPHs as an evaluation

of the situation on the ground. The data obtained using H/Ts questionnaires on the concern are reported in table 4.47.

Table 4.47

Providers of text books used by pupils

	Frequency	*Percent*
Government	113	76.9
Parents	8	5.4
well wishers	1	0.7
Sponsors	4	2.7
both government and parents	21	14.3
Total	**147**	**100.0**

Under FPE programme, the government has committed itself to finance the purchase of class text books to be shared at the book : pupil ratios of 1:2 and 1:3 for upper and lower primary school sections respectively. This support is reflected in the table 4.52 data. Responses from the H/Ts' show that 113 out of 150 H/Ts or 76.9 percent indicated that the government was the provider for the text books used in schools.

The data from the H/Ts on supply of supplementary books in schools is given in table 4.48

Table 4.48

Source of supplementary reading books

	Frequency	*Percent*
Government	111	77.1
Parents	6	4.2
Sponsors of schools	5	3.5
both government and parents	22	15.3
Total	**144**	**100.0**

The data in table 4.48 indicates that the government again is the major source of the reference or supplementary reading materials. One hundred and eleven head teachers out of 144 or a 77.1 percent of the respondents indicated that the government was the supplier of the supplementary reading materials.

Therefore, if proper plans are not put in place to identify the domestic source of funding as had been proposed by the Koech commission future participation rates of pupils in school is likely to be affected. When the cost sharing policy was implemented following the SAPs in the mid 1980s, many school age going children remained out of school and those in school dropped out due to inability to pay for the school demands.

The other school supplies that affect learning are type and size of furniture used in classrooms, school constructions, uniform supplies, and recreational facilities

most of which are not currently not catered for the FPE programme. The response to ascertain financier of these items using questionnaires to H/Ts is recorded in table 4.49

Table 4.49

Providers of furniture used in the schools

	Frequency	*Percent*
Government	28	19.6
Parents	70	49.0
Community	7	4.9
well wishers	7	4.9
Sponsors of schools	10	7.0
both government and parents	21	14.7
Total	**143**	**100.0**

From the data in table 4.49 the source of furniture used by the pupils was mainly provided by the parents as given by 70 or 49.0 percent of the H/Ts. Although this is not a condition for admission under the current government policy on FPE, it was established that some H/Ts have made it compulsory during the admission of new pupils in to the schools to have adequate supply. The pupils therefore either carry or pay for desks and chair to schools a condition that affects enrolments and quality of education especially looked at from formation of good hand writing and

confidentiality of class work.

The state of uniforms used by the pupils can be another source that affects participation and quality education. The table on who provides pupils' uniforms captured through H/Ts questionnaires are recorded in table 4.50.

Table 4.50

Source of uniforms for games and daily use by pupils

Source	*Games uniforms*	*%*	*Daily school uniform*	*%*
Government	9	7.1	1	0.7
Parents	104	81.9	138	98.6
Community	1	0.8	1	0.7
Well wishers	6	4.7	0	0.0
Sponsors	5	3.9	0	0.0
parents and government	2	1.6	0	0.0
Total	**127**	**100**	**140**	**100**

The provision of school uniforms have remained the responsibility of the parents as confirmed by table 4.50 readings. From the responses, 104 or 81.9 percent of the H/Ts got games uniforms from the parents. The other 138 or 98.6 percent of the H/Ts had the daily uniforms used by the pupils provided by the parents. Uniform purchase by pupils in education system presents itself as a hidden cost

and has remained one of the major reasons for some pupils to remain out of school.

While interviewing one H/T in a Nyeri school a moving story was given where it was alleged by the H/T that a pupil in the school committed suicide after the other pupils refused to share anything including the desk with him because of the torn uniforms. The H/T explained that the late pupil hailed from the slums and both parents were poor and could not be able to provide the proper school uniforms for the boy. After the other pupils refused to share anything with him, the teachers allowed him to learn from the verandah copying the class work through the window for some time. The frustrations of missing to make friends and enjoy learning like the other pupils pushed him to commit suicide.

Under the cost sharing arrangement, the beneficiaries of the education were to provide the school infrastructures as a recommendation by Kamunge commission however, on the implementation of the FPE; there is confusion as who is to provide for this essential service. The responses on the party responsible for the provision of the school infrastructure between the government and parents and other stakeholders by the H/Ts questionnaires yielded the data in table 4.51

Table 4.51

Source of financial resources used for provision of infrastructures in the schools

	Frequency	Percent
Government	12	8.6
Parents	67	47.6
Community	19	13.6
well wishers	6	4.3
Sponsors	9	6.4
both government and parents	27	19.3
Total	**140**	**100.0**

From the questionnaire responses as indicated in table 4.51, the parents were the major financial providers for the schools' constructions. This was reported by 67 or 47.6 percent of the H/Ts. The other finances came from the community and the government. From the documents analyzed the issue of school constructions has not been very clear under the FPE programme. Many of the schools visited were in dire need of repairs and construction to accommodate the large populations that turn up every year for admissions.

The maintenance of a school plant goes beyond repairs and constructions it also incorporates provision of footpaths and establishment of flower gardens. Such

provisions create order and appreciation of the learners for aesthetic values in life which is an outcome of education. The findings on the provision of footpaths in the schools are in table 4.52.

Table 4.52

Availability of footpaths and the nature of their surfaces

	Frequency	Percent	Cumulative Percent
Tarmac	14	7.2	9.3
Murram	15	7.7	16.0
earth soil	143	75.3	98.0
not provided	23	11.8	100.0
Total	**195**	**100.0**	

The table 4.52 values indicate that the schools had footpaths provided though the surfaces differed greatly from one school to another. The surfaces were either tarmac observed in 14 or 7.2 percent of the schools, murram, or ordinary earth soil observed in 143 or 75.3 percent of the schools visited. Though footpaths do not affect quality of the education directly; during rainy season, mud can become a nuisance hampering the comfort of the pupils and teachers within the learning institutions. The routine use of the footpaths as pupils go about their activities in schools creates order among them and sensitivity to conservation of the environment. Such knowledge cannot be directly learned in schools.

The policy on the provision of the teaching-learning resource materials would depend on the accuracy of the data from schools. Such data will assist during planning to provide quality education in the education system. The ministry of education has designed and uses specially prepared data capturing forms called green form 2A that H/Ts fill three times in a year; in March, May and September of each year. The H/Ts fill the forms by detailing the school enrolments of the pupils in terms of gender and level or grade, staff establishment in terms of qualifications, gender and teaching experience, the kind and type of infrastructure in place including on going development projects in the school among other information. Planning therefore will only be meaningfully done if the forms are filled and submitted in time.

To ascertain if the 'green forms' are filled by the schools and send to the ministry of education, the H/Ts were asked to confirm and state how the information captured in the green form 2A is used by the ministry. The responses from the H/Ts during the interview are in table 4.53.

Table 4.53

Interview report on the filling of school data form 2A

	Frequency	*Percent*
filled	181	92.8
not filled	14	7.2
Total	**195**	**100.0**

The response from the oral interviews with the H/Ts on filling of the green forms 2A table 4.53 indicated that 181 H/Ts filled the forms.

Kind of feed back expected from the ministry of education on the data captured from the schools should assist in the planning to improve quality of education. An inquiry through the questionnaire on whether there was any feedback from the ministry on the information submitted through the green forms gave the responses recorded in table 4.54

Table 4.54

Head teachers' report on the feedback from the ministry on the information given through form 2A

	Frequency	*Percent*
Yes	32	22.7
No	109	77.3
Total	**141**	**100.0**

From the data in table 4.54 only 32 or 22.7 percent of the H/Ts received feedback from the ministry on information given in the green forms 2A. However from the 32 H/Ts in table 4.54 who indicated that they received a feed back, the kind of feedback received from the ministry varied as reported in table 4.55.

Table 4.55

Type of feedback received from the ministry on the information provided through form 2A

	Frequency	*Percent*
post teachers required	4	12.5
sending FPE money	17	53.1
advice on school expansion	2	6.3
when error in filling	5	15.6
note of acknowledgement	4	12.5
Total	**32**	**100.0**

Data in table 4.55 indicate that only 32 H/Ts or 21.3 percent of the H/Ts who participated in the study received feedback from the ministry. The kind of feedback information most received was on the disbursement of the FPE funds. The large number of none response on this item may suggest that there is usually no feedback given by the ministry.

The suggestions by the H/Ts on how the data send to the ministry through form '2A' could be used are in table 4.56

Table 4.56

Head Teachers' suggestions on how the ministry could use information in the green form 2A

	Frequency	*Percent*
sending required teachers	73	65.2
advising on school expansion	18	16.1
advising on sourcing of teaching-learning resources	16	14.3
advice on academic improvement	5	4.5
Total	**112**	**100.0**

It seems the H/Ts expected the ministry to use the information to help them improve on their schools. For example, H/Ts expected the government to use the data by supplying enough teachers according to populations as reported by 73 or 65.2 percent of the H/Ts in table 4.56. The other expectations included advice schools on their and advising on the sourcing of teaching-learning resource materials. Though only 5 or 3.3 percent of the head teachers suggested that the ministry could use the information to advice them on how to improve in academics, posting of required number of teachers, ensuring adequate provision

of teaching-learning resources and expanding the schools to march the pupil populations are all concerns that address academic excellence. The data captured in green form '2A' is therefore very crucial in planning the provision of quality education in primary schools.

The government ban on employment of teachers since mid 1990s following the Structural Adjustment Progrmmes (SAPs) imposed by the International Monetary Fund (IMF) world over may be claiming toll on the enrolments at this level. Thus, to help alleviate the problem of inadequate teaching force in the primary schools, the SMCs of some schools have resorted to employ teachers at the school level.

Another measure of quality education is performance in examinations both internal and external. The performance starts with the preparation, frequency of examinations and type of questions given. The data on type of examinations given to the pupils is in table 4.57.

Table 4.57

Head teachers' report on type of exams given in the sampled schools

	Frequency	*Percent*
internally set	19	9.7
commercially set	9	4.9
both 1and 2	167	85.6
Total	**195**	**100.0**

The table 4.57 values indicate that most of the examinations done in schools are both commercially and internally organized. This was given by 167 or 85.6 percent of the H/Ts during the interview. It was revealed that there is a vote head on quality assurance under the FPE where money to facilitate examinations is drawn. However, the H/Ts interviewed felt that the amount of money voted is in-sufficient.

The report of the interview with the H/Ts on the frequency at which internal examinations were given is in table 4.58.

Table 4.58

The H/Ts report on the frequency with which pupils are tested in the schools

	Freq.	*Percent*
end term exams in all classes	5	2.6
Monthly tests in upper prim. and end term in lower	65	33.3
mid term and end term for all classes	118	60.5
all the methods practiced	7	3.6
Total	**195**	**100.0**

The data in table 4.58 shows that more than 93 percent or 183 H/Ts gave more than one internal examination per term, mid-term and end of term in all the

classes.

The other vote head reported to be in-sufficient is the one towards co-curricula activities as complained by the H/Ts. It was indicated that many children who qualified in various games and events were locked out of the competitions in the next levels because of inadequate funds or delay of funds from the government a concern raised by the H/Ts.

In conclusion to objective 3, the findings in the field and government documents; education commissions' recommendations have influenced the planning of quality education on the supply of teaching-learning resources. The integration programmes in primary schools where pupils with various impairments are learning with normal pupils in regular schools and classes need support from the government. The government subsidy towards the programme is inadequate to provide the necessary equipment and specialized material for their learning. At the same time, the learners with various inabilities should be identified early so that remedies can be put in place early to assist them as recommended by the Koech commission.

4.3.4 Cost effective measures in place in the provision of quality education

Objective 4- To establish the extent of cost-effectiveness measures in place in the provision of quality education in primary schools as a consequence of education commissions' recommendations from 1987.

Effectiveness in education means the ability of the education system to achieve the goals set. Hence cost-effectiveness in education depends on the objectives set, the blending of the resources for the system and time expected of the fruition of the planned education process. Therefore cost-effectiveness in the provision of education is dependent on the manipulation of the inputs in education system to maximize on the outputs. The cost-effectiveness analysis compares the output achieved with various combinations of inputs in making investment choices. The recommendations on this objective include;

16- **The primary school curriculum to be reviewed to allow for options in vocational subjects and more time to cover the curriculum content more effectively (Kamunge comission).**

17- **The causes of and extent of primary school drop-outs and reapers be studied with a view to improving the cost-**

effectiveness in the provision of primary education (Kamunge comission).

18- **Early childhood care, development and education (ECCDE), to be made an essential component of basic education accessible to all the children (Koech commission).**

19- **Primary teachers (P1) teaching in lower primary be in-serviced to be able to ECDE Programmes (Koech commission).**

The first input into the school system is the characteristics of the pre-school children i.e. characteristics of the children entering into the primary school system or preparedness of the learners. An inquiry about whether there were established Early Childhood Development Education centers (ECDE) within the primary schools or within the catchment areas of such schools through the questionnaires to the H/Ts gave the data in table 4.64.

Table 4.59

Establishment of early childhood development and education centers within the school

	Freq.	*Percent*
Established	120	82.8
Not established	25	17.2
Total	**145**	**100.0**

From the questionnaires filled by the H/Ts and reported in table 4.59, 120 or 82.8 percent of the H/Ts had established ECDE centers within the school premises. This response captured using the questionnaire is comparable to the one given during the oral interviews recorded in table 4.60.

Table 4.60

An observation report on the establishment of early childhood development and education centres

	Freq.	*Percent*
Established	169	88.9
not established	21	11.1
Total	**190**	**100.0**

The data in table 4.60 show that 169 or 88.9 percent of the schools visited had ECDE centers established within the schools or its proximity. The observation compares well with the report of the H/Ts in the questionnaires.

As a cost-effective measure, establishment of ECDE within the schools or where the primary school H/Ts can monitor the activities within the centers ensures that proper curriculum instructions are given. This will ensure that the children in the programme acquire right skills and knowledge to prepare them for primary school curriculum. Wrong formation of concepts among learners at an early age is one of

the causes of drop-outs among pupils in primary schools.

To ensure similar standards of the learners in the lower primary school the option on cost-effectiveness at this level would be to in-service the P1 teachers teaching in the lower primary on ECDE approaches as recommended by the Koech commission. This would help those children who turn up for admissions into class one without pre-school learning experiences to cope with the primary school curriculum. However this seemed not to be practiced as reported by the H/Ts. The H/Ts indicated that the few P1 teachers with some knowledge of ECDE syllabus had joined the programme on their own initiative without the knowledge and permission of the employer, Teachers Service Commission (TSC) and the government. The teachers of such training were not willing to teach in the ECDE centres but instead used the qualifications to advance in their academics and seek higher offices of administration.

The other cost-effective measure the government implemented in the schools is the effort through collaboration from the sponsorship of the British government through Department for International Development (DFID) to in-service teachers. The School based Teacher Development (SbTD) was a programme sponsored by the British government to equip primary school teachers with knowledge and skills to organize school based seminars and workshops to in-service their colleagues in the subject areas.

Initially three teachers per school were selected for training. The subjects covered were mathematics, English and science. In the second phase were Kiswahili and guidance and counseling teachers. The teachers who went through the programme graduated as Key Resource Teachers (KRTs) for their schools in the subjects studied. It was envisaged that the government would spent a lot of money to in-service teachers whenever there are changes in the curriculum or subject pedagogy but by using the KRTs, the same goals would be achieved at minimal costs.

Therefore the government wanted to use KRTs to strengthen the deployment of well qualified and competent teachers and ensure regular in-service courses on curriculum implementation for the serving teachers. The statistics on the population of KRTs in the sampled schools to establish this fact is in table 4.61.

Table 4.61

Population of key resource teachers in the schools visited as given by head teachers

	Frequency	*Percent*
at least 2	10	5.2
Three	34	17.8
more than three	123	64.4
H O Ds	20	10.5
None	8	4.2
Total	**191**	**100.0**

The statistics in table 4.61 show that 171 or 89.5 percent of the H/Ts interviewed had more than three KRTs.

Though it was supposed to be one KRT in each subject per school, it was found during the piloting of the instruments that some schools had more than one KRT in a subject due to transfers. It was necessary therefore to establish the exact number of KRTs per subject per school. The data to capture exact number of KRTs found in the schools was gotten by inquiring whether the SPHs were recruited from among the trained KRTs in the subject they headed. Data captured is in table 4.62.

Table 4.62

Training of SPHs in the KRT courses per subject in the schools sampled

Subject/number	*No. attended*	*No. not attended*	*Total*
English	117	33	150
Mathematics	120	30	150
Kiswahili	109	41	150
Science	119	31	150
Social studies	27	123	150
G/counseling	47	103	150
Total	**539**	**351**	**900**

From table 4.62, 117 or 78.0 percent of the SPHs in English were trained KRTs. In all the subjects except Social Studies, the SPHs were selected among the trained KRTs 539 or 59.9 percent. By the time of the research, Social Studies had not been covered in the programme.

The KRTs were trained so that they carry out the in-service training of their colleague teachers at the school level on how to handle the crowded syllabus, make the teaching-learning resources and set examinations. It was anticipated that in so doing the KRTs would assist the H/Ts in the curriculum implementation, and supervision by organizing internal subject panel workshops, seminars and examination reviews and other academic discussions and making of

teaching materials in their subjects. Therefore it was necessary to establish the level of KRTs active involvement in organization of their subjects in the schools. The data from the H/Ts teachers' on the active involvement of the KRTs in the subjects they were trained in are in table 4.63.

Table 4.63

Key resource teachers' active involvement in their subject matters at the school level

	Frequency	*Percent*
Active	64	32.8
not active	20	10.3
initially active but now complacent	111	56.9
Total	**195**	**100.0**

From the data in table 4.63, KRTs in 131 schools visited were relaxed after they went through the training. It was reported by the H/Ts that the KRTs on their staffs were very active initially when they came from the training but had become inactive and complacent. It was revealed that when the government recruited teachers in the programme they promised to issue them with value loaded certificates. The hopes of the teachers were raised during the training but when the government failed to recognize the certificates issued for promotions, the

teachers became complacent. The performance of KRTs in their duties and even the respect they commanded among the teachers they were supposed to in-service at school level were affected. One teacher in one school commented "we have remained laughing stocks by the teachers we are supposed to in-service". This contravened the recommendation of ensuring highly motivated teaching personnel in schools suggested by the Koech commission.

On the side of the SPHs the reason cited for inactive involvement included low morale due to non-implementation of their raised hopes of valued certificates. The SPHs who were the majority KRTs commended that the course they went through was enriching and appropriate to help in improving academic standards in schools.

Other measures on cost-effectiveness in education are the maximization in the utilization of teachers employed by the TSC and school managers to save on the costs of education. One such measure is inclusion of special needs pupils in classes with normal pupils during teaching as recommended by the commissions. The inclusion is anticipated to save on the costs to be incurred in hiring special teachers and buying special facilities and equipment for use by few learners in special schools. Policy on Special Needs Education (SNE) is to integrate pupils with special needs in the regular classes at all levels of education and training. This entails capacity building to embrace inclusive education practices and

innovative methods of teaching, learning and evaluation.

Data from the interview with the H/Ts on implementation of this policy is in table 4.64.

Table 4.64

Establishment of special units in primary schools

	Frequency	*Percent*
Established	17	8.7
inclusive learning practiced	172	88.2
not provided	6	3.1
Total	**195**	**100.0**

Data in table 4.69 indicates that only 17 or 8.7 percent of the H/Ts had established special units in their schools. The rest 172 or 88.2 percent of the H/Ts practiced inclusive teaching. Facilities in the few established special education units were observed to be inadequate table 4.65.

Table 4.65

Observation on the level of provision of facilities in the special units

	Frequency	*Percent*
not provided	3	17.6
provided and enough	5	29.4
provided but not adequate	9	52.9
Total	**17**	**100.0**

Nine H/Ts of the 17 with established special units in their schools had inadequate facilities provided as shown in table 4.65. The H/Ts raised a concern that the two thousands shillings per year given to the schools per child with special needs are not enough. The money is meant for buying the specialized equipment as per the disability of the children at the unit.

The observed type of special needs catered for were mentally and physically challenged, visually and hearing impaired pupils table 4.66.

Table 4.66

Type of special unit established in the sampled schools as given by head teachers

	Frequency	*Percent*
mentally challenged	7	41.2
visually impaired	8	47.1
physically challenged	2	11.8
Total	**17**	**100.0**

From the table 4.66 readings there were 7 H/Ts with mentally challenged units established in their schools, 8 H/Ts with visually impaired and 2 H/Ts with physically challenged units established. There was no unit for hearing impaired among the sampled schools.

The two commissions Kamunge and Koech recommended removal of content overlaps within the subjects and levels to create more time for syllabus coverage. From the documents analyzed, these recommendations have been addressed elaborately by the government institute in charge of curriculum development Kenya Institute Education (KIE). Based on these recommendations and public opinions on the education developments at primary school level, KIE have undertaken three evaluation studies; in 1990, 1995 and 2002. The needs assessment for the evaluations was guided by the education commissions'

recommendations and public reactions. The evaluations resulted into three major changes in the syllabus since the inception of the 8-4-4 education curriculum in primary schools. In spite of all these changes in the syllabi there continues to be a concern on the crowded curriculum raised by the H/Ts and SPHs.

As a cost-effective measure, schools have resorted to starting teaching from very early in the morning before eight and stopping teaching late in the evenings including weekends to conduct remedial teaching. Schools have used the practice of remedial teaching to cover the syllabus as another measure put in place to maximize on the teachers time and inputs into education. Findings from the interview with the H/Ts about remedial teachings done in the schools are in table 4.67.

Table 4.67

Interview report from H/Ts on remedial teachings done in the schools

	Frequency	*Percent*
classes 4 to 8	60	30.8
classes 7 and 8	85	43.6
not done	5	2.6
Optional	11	5.6
in all the classes	34	17.4
Total	**195**	**100.0**

On the remedial teaching, the data in table 4.67 shows that it is done in all the schools at varied levels. Eighty five or 43.6 percent of the H/Ts organized remedial teaching for classes 7 and 8 only whereas 60 or 30.8 percent of the H/Ts organized remedial teaching for classes 4 to 8.

The commission recommended that special talents among the pupils and teachers be identified and nurtured **(Kamunge commission).** This has been used as a managerial maneuver in cost-effectiveness. Such special skills among teachers include and not limited to knowledge in handling particular subjects and classes, counseling pupils, and coaching in games. Among the pupils, the special skills may include the gifted pupils in academics and co-curricular activities. The commission recommended that schools should guard and promote their stock of specific skills among pupils and teachers by allowing them to contribute in sufficient depths of their abilities **(Koech commission).**

Kamunge commission recommended that teachers of the upper primary classes be assigned to teach only those subjects they studied and passed in the Kenya Certificate of Secondary Education (KCSE) or equivalent. It is assumed that such a move would cut down on costs incurred by the government to in-service teachers whenever need arises following minor or major changes in the curriculum and subject pedagogy or examination setting. Teachers recruited from those who studied and passed the subject they taught will be more grounded in the

subject content. This will enable such teachers to handle the demands of the syllabus at this level and follow the changes suggested by reading and comprehending the government circulars that detail the changes without much problem.

To check on the use of the recommendations the researcher sought to determine the criteria used by schools to assign teachers to teach in various classes. Findings from the H/Ts questionnaires are reported in table 4.68.

Table 4.68

Criteria used to assign teachers to teach in upper primary classes in the schools

	Frequency	*Percent*
1-personal interest of the teacher	36	24.3
2-previous performance of the teacher	45	30.4
3-teachers academic qualifications and performance	51	34.5
4-response one and two	13	8.9
5-response one and three	3	2.0
Total	**148**	**100.0**

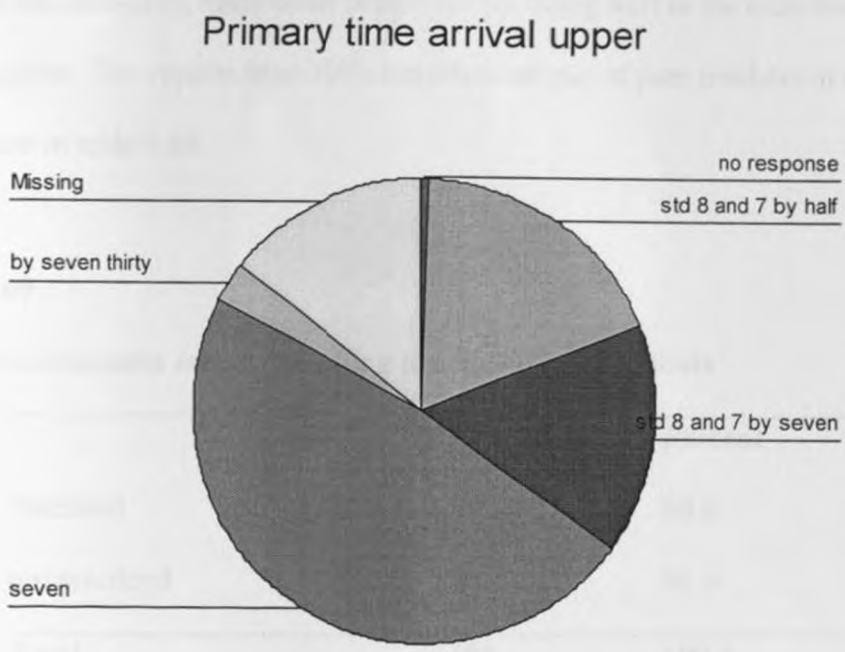
Table 4.68 indicates that previous performance in the subject and teachers own

academic qualifications are the most criteria used to assign teachers to teach in upper primary school as responded by 81 or 54.7% of the H/Ts.

However, teaching examination classes at times need special input from the teacher. The H/Ts maintained that not anybody can handle class eight. They argued that apart from academic qualifications, teachers for class 8 should be those who are committed and to sacrifice their personal time for the pupils. Class eight teachers usually report to school earlier than the official time and stay beyond the normal school hours including weekends and holidays. This was ascertained from the reporting time of the class 8 and 7 pupils in the morning which was given as 7 am by 48.0 percent of the H/Ts.

Figure 2

Pupils arrival time in the morning for lessons



Special talents among the pupils in academics are recognized at each subject level. Some pupils can be selected to help in teaching other pupils (peer teachers) especially on difficult concepts that may be understood by use of simple language.

These peer teachers were selected amongst other pupils in recognition of their good academic performance and participation in class work. This practice if well organized and supervised, may turn out to be the most acceptable motivator to other pupils as suggested by the H/Ts. When pupils listen to fellow pupils

presenting difficult concepts at their language competence level, the conceptualization or understanding of such concepts is improved. Through imitation and role-play, many other pupils end up doing well in the examinations and discipline. The reports from H/Ts interview on use of peer teachers in the schools are in table 4.69.

Table 4.69

The H/Ts comments on peer teaching practices in the schools

	Frequency	*Percent*
Practiced	112	58.6
not practiced	79	41.4
Total	**191**	**100.0**

From responses in table 4.69, 112 or 58.6 percent of the H/Ts allowed peer teaching practices in their schools. The H/Ts however cautioned that, if the practice is not properly done and supervised it may affect the peer teachers themselves in their class performance and concepts they taught due to their limited content competency in the subject.

In conclusion, the recommendations on the cost-effective provision of quality education have not been implemented satisfactorily. For instance, there were no courses mounted to in-service P1teachers on how to handle the ECDE curriculum,

integration of impaired children in regular schools is not effective, deployment of teachers within schools in various classes is not based on academic achievement of the teachers in their high school education or subjects and teachers tended to use peer teachers as substitute to create time to meet their own commitments.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of the study

This study set out to examine the extent of utilization of education commissions' recommendations in planning quality education in primary schools in Kenya. Efforts to plan education depend on the information gathered in baseline studies, the direction of development agenda of the nation, the international policy guidelines and performance of the current educational system. To draw a successful education plan to spear economic development, education commissions have been set up to inform the type and kind of educational developments desired.

The purpose of the study was to determine the extent of utilization of education commissions' recommendations in planning quality education in primary schools in Kenya. This was done by singling out two education commissions established after 1987: the Kamunge and Koech education commissions.

The study was guided by the following objectives: to

1. Determine the extent to which the recommendations of education commissions established after 1987 have influenced planning for the

provision of quality education at primary schools in Kenya.

2. Examine the preparedness of the primary schools to implement education commissions' recommendations since 1987.
3. Assess how the level of provision of educational resources and facilities are influenced by education commissions' recommendations since 1987 at primary school level.
4. Establish the extent of implementation of cost-effectiveness measures recommended by education commissions in the provision of education at primary school level since 1987.

Four research questions were formulated to guide the study:

a. To what extent have the recommendations from the education commissions established since 1987 influenced the planning and provision of education in primary schools in Kenya?
b. How are primary schools in Kenya prepared to implement recommendations of the education commissions' established since 1987 to improve on the quality of education?
c. How has the recommendations of the Kamunge and Koech education commissions influenced the provision of education resources and facilities in primary schools since 1987?
d. To what extent have the primary schools implemented cost-effectiveness measures recommended by the education

commissions established in Kenya since 1987?

The study has generated information on how the education commissions' recommendations have been used to inform planning of quality education in Kenya. The information generated is useful to policy makers and planners of education on how they can use education commissions in baseline studies to identify educational resources and their rightful blending to offer quality education at primary school level. The findings have also made a direct contribution to schools themselves on how to utilize educational resources at their disposal to offer quality education to benefit the vast majority of primary school learners.

The researcher used Survey research design to establish the status of implementation of education commissions' recommendation on quality education at primary schools in Kenya. A sample of 196 primary schools was used. This sample was clustered to cover all provinces and districts in the republic. The distribution of schools in the provinces and districts were based on the weighted ratios of the populations in the provinces and districts on KCPE enrolments in 2006 KNEC register. The data was collected by use of two sets of questionnaires one for the H/Ts and the other for the SPHs. The other research instruments were oral interviews with the H/Ts and an observation schedule.

Responses from the various research instruments were edited and coded to give a

nominal value. The computer programme, SPSS, was used for data analysis. Regression analysis was run to show the degree of association between the dependent and independent variables. The data presented, discussed and interpreted have formed the basis upon which the research findings, recommendations and suggestions are given.

5.2 Summary of research findings

In order to meet the objectives set for the study, the researcher had research questions which assisted in designing the research instrument items. The research questions have been paraphrased to form the sub-headings of the rest of the presentations in this chapter.

5.2.1 *Influence of education commissions' recommendations in planning the provision of quality education in primary schools*

The two education commissions had in total nineteen recommendations that touched on the provision of quality education at primary school level. These recommendations were presented in chapter four where each was analyzed by using government policy documents and situations at the school level in the sampled schools.

The study established that despite the commissions' recommendation that female teachers should be deployed to all schools to give a role model to the girls in schools; the distribution in the administrative positions was low as shown in table

4.2. There was an average of 62.0 percent males and 38.0 females in administrative positions as either head teachers or subject panel heads.

The study established that there was no gender equality among the head teachers in primary schools as opposed to the recommendation of the Koech education commission. The commission recommended for more women involvement in administrative responsibilities in primary schools since they formed the bulk of the teaching force. Out of the 150 head teachers who filled up the questionnaires; 102 were male teachers giving a percentage of 68.0 percent of the head teachers. Whereas out of 686 subject panel heads 416 were male teachers with a percentage of 60.5 percent of the subject panel heads. Comparatively population of the teachers in the schools had more females than males indicated in table 4.3 by 87.7 percent of the head teachers.

Head teachers were recruited from among both serving deputy head teachers and none serving ones. There was however no government policy on the duration of one to serve in the position of a deputy before being promoted to headship.

To beef up the H/Ts with managerial skills, the government has implemented various courses financed by foreign partners such as the British Government through Department for International Development (DFID). The courses mounted included SPRED, PRISM, Education Management Course (EMC) organized by

KESI and SEP. The two commissions; Kamunge and Koech recommended that the school managers be given managerial skills on how to run schools. The data on the managerial training the head teachers had attended revealed that 99 or 50.8 percent had some training on management of primary schools through SPRED, PRISM, KESI or SEP table 4.7. These findings suggest that the H/Ts as managers of primary schools had the capacity to run the schools and guarantee quality education with the skills gained at these various trainings. The head teachers management skills were also build on their experiences as deputy head teachers as most of the head teachers 88.0 percent had been recruited among the serving deputies table 4.8.

On the regular in-service of the teachers on pedagogy, the government in collaboration with British government offered SbTD trainings to KRT teachers. The research revealed that the subject panel heads were recruited from among the trained KRTs. It was however observed during the study that refresher courses were not well attended or mounted for the teachers looking at tables; 4.16, 4.17, 4.19, 4.21, 4.23 and 4.25.

Therefore, the recommendation on regular in-serving was observed not to be done. The research further revealed that initially the training covered four subjects English, Mathematics, Science and Kiswahili. The training should continue to cover all core subjects and Guidance and Counseling to help many orphaned

children from HIV and AIDS. The H/Ts indicated that KRTs trained in the SbTD programme were not active in schools to help other teachers in handling difficult concepts and make teaching materials in their subject areas as anticipated.

5.2.2The readiness of primary schools to offer quality education

According to cost sharing policy in education recommended by the Kamunge Commission of 1987, parents and government jointly finance education. Under the arrangement, the provision of education is between the government and the beneficiaries of education (represented by their parents) at primary school level. The government is to ensure adequate staffing in the schools, whereas the parents take care of the provision of infrastructure and some teaching-learning materials.

The study found an acute shortage of teachers in the entire schools table 4.27. To alleviate the problem of inadequacy in teaching staff some schools resorted to hire teachers at the school level to be paid by the parents the gesture if not checked could compromise quality of education delivered. The extra levies charged to parents to cater for locally hired teachers will increase the cost burden to the parents. The consequence will be other essential facilities may not be provided like the much needed infrastructures.

The other parameter for quality education is the adequacy of the physical facilities and other resources that enhance learning. The physical resources under question

can be the infrastructures like tuition blocks with enough classrooms, furniture in the classrooms appropriate to the learner's needs and comfort, library facilities, bookstores and administration offices. Other facilities of equal importance are playing grounds, footpaths, water supply, solid waste disposal, and other provisions that will make a child comfortable in school. All these were in short supply affecting learning of the pupils to different levels.

The pupil populations in all the classes did not much the school supplies especially classrooms, desks, playing grounds, solid waste disposals and toilet facilities and even clean water for drinking.

The other essential facility that lacked in the schools was the library. The failure by the parents to provide library space in the school where pupils could do independent reading made pupils to rely heavily on the teacher. However, as earlier noted the provision of such facilities in schools is left in the hands of the parents. Therefore the H/Ts and School Management Committee (SMC), during the annual general meetings should sensitize the parents on the need to finance and construct libraries to provide reading spaces. They should be encouraged to provide supplementary reading materials.

The study established that there was low involvement of the parents in sourcing for school supplies as shown in table 4.30 on science kit and equipment, tables 4.33 and 4.34 on storage facilities for the text books, table 4.39 on inadequate

classrooms and desks and table 4.37 on shutters to the classrooms. Government's role in supply of text book is commendable. The sharing ratio of book : pupil was found to be 1:3 at lower primary and 1:2 at upper primary.

The other concern was on the kind and adequacy of school furniture. The desks were mainly benches with attached tables. A seating bench of average length of 3 feet accommodated four to five pupils in lower primary and three to four in upper primary. The small size of the bench for seating and writing table coupled with the low desk to pupil ratio made the learning environment for the pupils rather uncomfortable. Such arrangement does not favor good handwriting development, academic confidentiality especially during examinations and for general comfort of the learners.

Deplorable conditions of the school plants demand that parents be actively involved in the school planning process from the initial stages to own the plans and assist in the implementations. The implementation can be problematic when H/Ts are left on their own to decide on what kind and type of developments to initiate as witnessed from data in table 4.45. The percentage of the head teachers interviewed who indicated to be the ones who initiate school projects was quite high.

Irrelevant and difficult examinations are blamed for high pupil drop outs in

schools. During the research it was realized that teachers are not given skills on exam setting and marking. The schools and hence the ministry of education is not doing much to ensure that teachers are given guidelines on setting and marking examinations. The seminars and workshops on examination setting and marking will help address all these concerns.

Although the education commissions did not emphasize the use of school uniforms by the pupils, the provision of school uniforms have remained the responsibility of the parents. This hidden cost on uniforms has remained one of the major reasons for some pupils to remain out of school. The heavy dependence on parents to ensure that their children are in proper gear as they go to school may affect the participation rates.

5.2.3 The provision of educational resources and facilities as influenced by the education commissions' recommendations

Although the government has initiated policy reforms aimed at reducing the cost of education to the parents by now sending kshs. 1020 per child towards the free primary education to the schools, the participation rates at this level by the legible children is not commensurate with the effort. There see to be other charges involved. The school furniture, construction and maintenance responsibilities are still borne by the parents.

According to SACMEQ I Studies and UNESCO International standards, a pupil should occupy a space of $1.41m^2$. This space on average for a 40-pupil classroom demands a space $56m^2$ or 8m x 7m class size. This however was not the case due to crowded classes and small classrooms constructed without plan. The average classroom floor area spaces ranged between 5m length and 7m width to 14m length and 10m width for small and large classrooms respectively.

The figures gave average class sizes of 35 m2 and 140 m2 which fall outside the UNESCO approved standards. However, the populations in these same classes ranged between 60 pupils and 120 pupils in some classes and schools. This population renders the constructed classrooms not large enough for the populations being accommodated.

Planning begins with capturing of proper statistics from schools. Primary schools' statistics is usually captured in pre-designed forms popularly known as statistical green forms '2A' which are filled three times in a year, March, May and September. The information captured using these forms include pupil population in a school, number of teachers and their qualifications, number and size of the classrooms and other details that can assist in planning. It was found that the forms were filled regularly by the head teachers but there was no feedback or an indication that the information supplied was being used. It was also found out that

the data from schools was only emphasized from the public schools. The private schools were not involved. However for good planning especially to create enough secondary school places to improve on the transition rates between primary and secondary schools, it is important that data should be equally captured from all types of schools.

5.2.4 The extent to which the education commissions' recommendations have been used to plan for cost effective provision of teaching learning resources in primary schools

Cost-effective provision of quality education touches on relationships between the inputs into the education and the outputs. The establishment of the pre-school centers in the primary schools was aimed at the government benefiting from the managerial skills of the primary school head teachers and the teachers at no extra cost. The gesture as a cost effectiveness measure calls for considerations as to whether to train the pre-school teachers, equip the pre-schools with appropriate facilities or to retrain the already trained p1 teachers on how to teach the pre-school children with no pre-school knowledge or equip all primary schools with the appropriate teaching-learning resources for such group of pupils.

Other managerial maneuver in cost effectiveness is the recognition and nurturing of special skills among teachers. Such special skills include knowledge in

handling a particular subject and class. The criteria used to assign teachers to teach in particular class levels seem to promote this philosophy. The other cost effective measure is practicing of peer teaching. This was found to be practiced in almost all the primary schools.

Inclusive teaching of children with various difficulties and impairments together in the classrooms and schools with the normal children is meant to help remove stigmatization associated with various impairments. The aim is also to help the learners themselves to become independent as they learn and share facilities with regular children. The costs that would have gone into hiring special teachers and buying special equipment can be used to finance other educational resources.

5.3 Conclusions of the study

The first objective of the study was to determine how education commissions' recommendations established between 1987 and 2008 have influenced planning of the provision of quality education at the primary school sub-sector. The involvement of the government in the supply of the teaching-learning resource materials is a welcome idea especially to lessen the burden of direct and indirect costs in education that may affect the participation rates; these costs may adversely affect the future participation rates of the primary school children. As it stands, the government is relying heavily on the loans and goodwill of the friendly donor agencies. There has to be a strategic planning on financing of free primary

education by the government so that the quality of education is guaranteed and maintained even when the friendly government development partners pull out.

The study has also established that the education commissions' recommendations have been used to guide the provision of teaching-learning resources in primary schools. The study also established that the majority of the administrative positions in the primary schools are occupied by the male teachers in spite of the large population of the female teachers.

Objective number two was to find out the preparedness of the primary schools to offer quality education based on the recommendations of the commissions. The preparedness mainly centered on the involvement of the key players in education to offer quality education. The key players in education were identified as the government, parents and other beneficiaries from education including the community, sponsors and employers. The study found that the execution of their responsibilities varied in strength and depth.

Vital information is usually captured through the green forms '2A' on what happens in schools that can be used in policy formulation process to offer quality education at primary school level. However there is lack of linkage between the information captured from the schools and the Ministry of Education. Planning for quality education would easily benefit from this vital information captured in

form '2A' if the government is committed. There is need to hire qualified personnel who can interpret and advice the government accordingly.

The linkage between affected schools and government will help in the alleviation of the problems of under staffing, over crowding in classes among others. These problems touch on the quality of education and major contributors to wastage in education system.

The study also found that most of government interventions to provide quality education are informed from education commissions. For example since inception of 8-4-4 education system 1985 there have three curriculum reviews during the period under study that culminated into release of new syllabi to schools. The current syllabus in use in schools has silently benefitted tremendously from Koech commission.

The study has been able to determine the extent of inputs supply in the schools based on the recommendations of the education commissions. The provision of quality education and cost-effectiveness measures in place in schools was addressed extensively by the education commissions. Available inputs have been mixed in certain proportions to maximize on the output.

Nurturing of individual skills and talents is a good cost effectiveness measure to

provide quality education. Schools should guard and promote their stock of specific skills among pupils and teachers by allowing them to contribute them in sufficient depths.

5.4 Recommendations

The following are recommendation from the study:

1. The government should intervene to alleviate the shortage of teachers in the schools.

2. Parents and communities should be educated on their role and contribution towards offering of quality education in primary schools by emphasizing on their role in the provision of required inputs into education to improve and supplement government efforts.

3. All practicing teachers should be encouraged to attend refresher courses at regular intervals to help them cope with emerging issues that affect quality education due to technological changes.

4. Inclusive teaching where children with special needs learn together with normal children in regular schools should be supported with appropriate resource allocations.

5. Teachers who went through the SbTD programme should be examined for appropriate certification for motivation to make them contribute towards quality education as envisaged.

5.5 Suggestions for further studies

This has been basically a qualitative study looking at the contributions of education commissions, working parties and task forces in the education planning process for baseline studies in identifying the educational needs and interventions for its quality provision. The study recommends that:

1- A similar study can be carried out to determine the implementation of education commissions' recommendations at

a- secondary school level

b- university and other tertiary institutions on how education quality at these levels are benefiting from education commissions' recommendations.

2- In addition, it would be interesting to carry out a study to establish the definite content overlaps in the subjects at the primary school level as observed by the education commissions to determine how the education planners are incorporating them into planning the provision of quality education.

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APPENDICES

Appendix A; Letter of introduction

IbrahimKhatete,
Dept. of Education Administration
and planning School of Education,

University of Nairobi,
P.O. Box 30197 – 00100
NAIROBI.
29/09/2007

All Head teachers,
Sampled schools.

Dear Sir/Madam,

RE: COLLECTION OF DATA

I am a lecturer in the department of Educational Administration and Planning in the school of Education, University of Nairobi collecting data towards my academic work.

I am doing research on **The role of education commissions' recommendations in planning quality education in primary schools in Kenya.**

I am therefore requesting you to spare sometime to fill this questionnaire for me. The other five questionnaires please ask the teachers in-charge of subjects in your school to fill or those currently handling class 8. **I further request that you mail the filled up questionnaires using the self-addressed envelope provided.**

I take this early opportunity to thank you and your staff in advance for the cooperation.

Yours truly,
Khatete Ibrahim

Appendix B

Questionnaire for head teachers of primary schools

This is a national wide study and your school was randomly selected to participate. Therefore your candid response is very vital to this study. Please respond to all the items in this questionnaire. All the answers and opinions given will remain confidential and used only for the academic purpose.

Please respond to the items by placing a tick in the appropriate space corresponding to the alternative that best answers the question.

1- Personal data

a- Please indicate your gender

Male ☐ Female ☐

b- Please indicate the highest level of your formal education

i- 'O' level

ii- 'A' level

iii- Diploma

iv- University graduate

v- Others specify

c- Please indicate your highest professional qualifications

i- P1

ii- Diploma in Education (Dip. Ed)

iii- Bachelor of education (BEd)

v- Others specify

d- Please indicate for how long you have served as a head teacher

i- Less than 2 years

ii- between 3 and 5 years

iii- between 6 and 10 years

iv- more than 10 years.

e- Before you were appointed as a head teacher did you serve as a deputy? Yes/No

If yes, indicate the period in years you served as a deputy head teacher

f- Please indicate the course(s) you have attended on management and administration

i- PRISM

ii- SPRED

iii- Others please specify

2- School data

a- Please indicate the highest level of the school committee chair person in terms of:

i) formal education_____

ii) the profession or occupation _____

b- Please give the total number of teachers and subordinate staff on your school in the spaces given;

i- Number of teachers Total ------ Males ------- Females --------

ii- Subordinate staff Total ------ Males ------ Females --------

c- Please give the enrolment of your school in the last 8 years (2000 to 2007) by filling the individual class enrolments in the table1 given

Table 1

School enrolments since 2000

Class	2000		2001		2002		2003		2004		2005		2006		2007		2008		Streams
	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G	
1																			
2																			
3																			
4																			
5																			
6																			
7																			
8																			

d- Do you ever receive feedback on the information submitted to the ministry through the green forms A (P) Yes/No

If yes state the type of feedback

_____

e- Indicate in which way the ministry could use the information contained in the

green form A (P) to improve quality of education at primary school level

_____

_____

_____

_____f- Please indicate the type of furniture used in the classrooms by pupils

i- Benches

ii- Benches with attached tables

iii- Single chairs and single desks

iv- Double desks and chairs

v- None

g- Please indicate the sharing ratio of the pupils to desks

i- 1:1

ii- 1:2

iii- 1:3

iv- 1:4

h- Please indicate the type of classroom supplies for teaching-learning purposes

i- Back wall/ Portable black board

ii- Class Library/Book Cupboards/Shelves

ii- Teachers table and chair

iii- Nature corner

iv- Science equipment

i- Please indicate other facilities in the school for use by the pupils

i- Latrines give the number for boys and girls

Boys _____ Girls_____

ii- Water closet (WC) give the number for boys and girls

Boys _____ Girls _____

iii- Identify the particular problems on sanitation faced by the particular pupils in your school

_____

_____

_____

_____

_____

iv- Playing fields (give numbers) for;

Football

Netball

Volleyball

Others specify

v- Water supply, indicate the source;

Tap water

Borehole

Spring

None

Others specify

vi- Footpaths, indicate the nature of surface;

Tarmac

Murram

Earth soil

None

j- What criteria do you use to assign subjects to teachers in upper classes?

-personal interest of the teacher

-previous performance of the teacher in the subject

-their own academic qualifications and performance in the subject

-other criteria is used specify

k- Please indicate how teachers are appreciated to ensure quality grades in external examination (KCPE)

- small payments are given to teachers who post good results

- school organizes tours, parties for all the teachers

- school has organized lunch for teachers

-any other specify

l- Please indicate the source of teaching – learning resource materials and facilities provided in the school by ticking in the box in table 2 appropriately either by the government, parents, community, well wishers or others by specifying.

Table 2

Supply of teaching-learning resources

EXPECTED ITEMS	Government	Parents	Community	Well wishers	Others sp
Writing materials					
Text books					
Reading /Supplementary Books					
Science Equipment					
Science Chemicals and reagents					
Workshop tools					
Materials for Vocational subjects					
Furniture					
Recreational facilities					
Uniforms (games)					
Uniforms (daily use)					
School construction					
Maintenance of school facilities					

Library					
Workshops					
Any other					

m- Please comment on the community and parents involvement in the construction and maintenance of physical infrastructure and facilities in the school

Excellent

Good

Fair

Poor

n- Please indicate if teachers have attended the key resource teachers (KRT) course in the subject given in the past four years

1- Mathematics

2- English

3- Kiswahili

4- Science

5- Social Studies

6- Others specify

o- Please indicate the distance in kilometers between your school and the nearest neighboring schools

- less than 1 km

- between 1 and 2 kms

- between 2 and 3 kms
- more than 3 kms

p- Please indicate if there is an ECD center in the school there is/there isn't

p-Please state how your school ensures that there is consistence in the academic performance in KCPE examinations

_____

_____

_____

_____

q- Give in **meters,** the average size of the biggest class rooms and the smallest class rooms in your school;.

i) the biggest class rooms, length _____ meters, width _____ meters

ii) the smallest class room, length _____ meters, width _____ meters

r- Please indicate the criterion used in promoting pupils to the next level of their education

- Automatic promotions
- Academic performance
- Both automatic and academic performance
- Age of the pupil

- Other, specify

s- Indicate how you prepare your pupils to get high grades in KCPE

- Early syllabus coverage
- Ability groups
- Regular testing (indicate duration between tests)
- Promoting pupils who pose good results at std 7 only

(order the responses in order of preference)

Appendix C

Questions for the Oral Interview with the Heads of Primary Schools

1. Do you have a nursery school attached to your school or one established within the school compound?
2. What is the population of the pupils being prepared for standard one?
3. What is the total number of teachers in the ECDE?
4. What are the qualifications of the ECDE teachers?
5. Comment on the facilities in the ECDE class
6. Comment on the regularity of the ECDE teachers salary payments
7. What criterion do you use to admit children in standard one or for new comers in to your school?
8. The availability of the head teacher at the time of visitation
9. Comment on the adequacy of the teaching staff in the primary school
10. Do you have any teachers in the primary employed by the parents (PTA)
11. Comment on the adequacy of the classrooms used by the primary school
12. What time do std one to four expected to arrive every day in the morning?
13. What time do you expect std five to eight to arrive every day in the morning?
14. Is there any remedial teaching organized before start of lessons in the morning for upper or lower primary or both?
15. Do you have lunch programme for the pupils
16. Do you have lunch programme for the teachers organized by the school

management committee?

17. Do you encourage peer teaching? How is it done?
18. How many key resource teachers do you have on your staff?
19. Comment on the involvement of the KRT teachers in their departments to improve on the academic standards in the school
20. How are the teachers motivated to ensure high grades in the external examinations?
21. Do you have computers for the use by the pupils?
22. Comment on the training qualifications of the computer teacher
23. Do you have a science kit in the school?
24. Is there a special unit established in the school? What impairment is the special unit addressing?
25. Comment on the facilities in the special unit class
26. Have you set aside special days on academics where parents can meet class teachers and their children to discuss academic matters together?
27. How do you involve old pupils in motivating pupils to work hard in the academics?
28. What type of exams do you give to your pupils' commercial or those set internally by the teachers only or both?
29. How often do you test the pupils academically?
30. Is there an established school library with reading space?
31. Is there a bookstore where text books are kept for safe custody when not

being used by the pupils?

32. Have you noted any change in the parents' involvement in the school matters since the inception of the free primary education in 2003?
33. Do you have shutters to all the class rooms?
34. How is the state of the floors in the classrooms?
35. What policy have you set on the issuing of text books to the pupils?
36. Who initiates the school developments?
37. Do you receive any feed back on the statistics forms that you feel every term by the ministry?
38. Do you organize academic workshops for the teachers at the school level to lay strategies on teaching and improving academic standards?
39. Have had any training on management?
40. Do you have boarding provisions for the pupils?

Appendix D

Questionnaire for Subject Panel Heads (SPHs)

This is a nation wide study and your school was randomly selected to participate. Therefore your candid response is very vital to the study. This questionnaire can be filled by the panel subject head or one teaching the subject in upper primary classes. Please respond to all the items in this questionnaire by **putting a tick to the response that best applies to the question**. All the answers and opinions given will remain confidential and used only for academic purpose.

1. Personal information

a- Please indicate your gender; male female

b- Please indicate your highest academic qualifications

i- 'O' level

ii- 'A' level

iii- Diploma

iv- University graduate

v- Others specify

c- Please indicate your professional qualifications

i- P1

ii- Diploma in Education

iii- Bed.

v- Others specify

d- Please indicate the subject you head or teach

-Mathematics

-English

-Kiswahili

-Science

-Social Studies and Religion

e- Please indicate the grade or score you got at your 'O' level KCSE or KCE in the subject you are heading or teaching now in table 3.

Table 3

'O' level performance of the teacher in the subject engaged in teaching

	'O' level Grade or score	
Subject	KCSE	KCE

f- Kindly specify your teaching experience since you left college

-less than 2 years

-between 2 years and 5 years

-between 6 and 10 years

-more than 10years

g- For the years given in (f), how many have you taught at upper primary classes?

-less than 2 years

-between 2 years and 5 years

-between 6 and 10 years

-more than 10years

h- Please indicate if the school has a criterion for allocating classes to teachers. Yes/No

If yes, state the policy being used

_____

_____

_____

2- School factors

a- How do you rate the school in terms of facilitation in your subject? Fill table 4 using the key;

poor- no corporation by the school, **satisfactory-** school tries but doesn't meet the demands, **fair-** at least school tries but limited because of other reasons, **good-** school meets the basic demands readily and **excellent-** school meets the basic demands readily with surpluses

Table 4

School Corporation in facilitating teaching

Item	Poor	Satisfactory	Fair	Good	Excellent
Reference books					
Time (time tabling)					
Time allocation					
Remedial work					
Tests (examinations)					
Store space					
Stationery					
Material for practical work					
Wall maps/charts					
Others specify					

b- Please indicate if you have attended any course in pedagogy to be equipped with latest instruction/teaching methods since you started teaching, give the year if you can remember

_____

c- Please indicate if you have participated or attended an in-service training, seminar or workshops organized in your subject area for teachers since the year 2002. Yes/No

If yes, indicate number of times and the sponsors or facilitators or both of the courses attended in table 5.

Use the following key on (a) sponsorship; 1-Government, 2-NGO, 3-School, 4-Self

(b) facilitators; 1- experienced teachers, 2-TAC tutors, 3-key

Resource teachers, 4- personnel from the ministry, 5- did not

know them

(c) comments on the relevance of the course content; 1-irrelevant,

2- relevant, 3- enriching

Table 5

In-service courses attended

	Subject	No. of times	Sponsor	Facilitators	Comments
Workshop					
In-service					
Seminar					
Subject panel					
Exam. Setting					
Others specify					

d- Please indicate the performance of your subject in the national examinations (KCPE) in the past 5 years by giving the number of pupils who obtained the grades specified in table 6.

Table 6

Subject performance in KCPE since 2002

Year	Grades				
	A	B	C	D	E
2002					
2003					
2004					
2005					
2006					

e- Have you ever experienced any problem in the syllabus coverage? Yes / No.

If yes indicate the problems encountered

-i- too much content and little time allocated

ii- unrelated basic knowledge required hence much time used on explaining new

concepts every time

iii- some concepts are difficult to teach

iv- any other problems (specify).

You can use a separate sheet of paper to explain your answers.

f- Indicate number of times you have been supervised in class by the standards and quality assurance officers since 2002

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g- Please indicate the criterion used in promoting pupils to the next level of their education

- Automatic promotions
- Academic performance
- Both automatic and academic performance
- Age of the pupil
- Other, specify

h- Indicate how you prepare your pupils to get high grades in KCPE

- Early syllabus coverage
- Ability groups

- Regular testing (indicate duration between tests)
- Promoting pupils who post good results at std 7 only

(order the responses in order of preference)

Appendix E

Table 7

Observation schedule

Item	Score				
General out look of the school					
Sitting arrangements					
Furniture used in class					
Environment state of cleanliness					
Solid waste disposal (latrines)					
Water supply					
H/T office					
Playing grounds					
Staffroom					
School store					

The scoring will be based on the following criteria;

- Poor when the school seem not to care
- Satisfactory when the school seem to be trying occasionally
- Fair when the school has tried but seem limited by the resources
- Good when the school has tried to maintain the standards
- Excellent when the school has put extra effort in maintaining standards
- Inadequate when the facility is not offered

- Insufficient when the facility is not enough for the pupil population
- Adequate when the facility is spread or can be spread evenly among the pupils
- Sufficient when the facility can be used by all pupils without any being inconvenienced

Appendix F

The population of the schools per district in each province selected for the study

Coast Province			**Central Province**		
Name of district	**Std. 8 Enr.**	**Ratio**	**Name of district**	**Std. 8 Enr.**	**Ratio**
1 Mombasa Mun.		5	1 Nyandarua		
	4				
2 Kilifi		4	2 Maragua		
	3				
3 Taita Taveta		4	3 Thika Mun.		
	1				
4 Lamu		2	4 Kirinyaga		
	3				
5 Tana River		1	5 Nyeri		
	4				
6 Kwale		4	6 Murang'a		
	3				
7 Malindi		2	7 Kiambu		
	4				
			8 Thika District		

3

Rift Valley Province

Name of district	**No. of schools**	**Name of district**	**No. of schools**
1 Eldoret Muni.	1	12 West Pokot	1
2 Baringo	1	13 Nandi North	1
3 Koibatek	1	14 Marakwet	1
4 Keiyo	1	15 Nakuru Muni.	1
5 Kajiado	1	16 Bomet	2
6 Kitale Muni.	2	17 Nakuru Dist.	4
7 Uasin Gishu	2	18 Kericho	2
8 Turkana	1	19 Trans Nzoia	2

9 Laikipia	1	20 Buret
2		
10 Nandi South	1	21 Samburu
2		
11 Trans-Mara	1	22 Narok
1		

Nairobi Province

Nairobi	20

Eastern Province

Name of district	**No. of schools**	**Name of district**
No. of schools		
1 Marsabit	1	8 Mbeere
1		
2 Makueni	4	9 Meru South
1		
3 Tharaka	2	10 Isiolo
2		
4 Embu	2	11 Moyale
1		
5 Meru North	2	12 Meru Central

3		
6 Machakos	5	13 Kitui
4		
7 Mwingi	2	

Nyanza Province

Name of district	**No. of schools**	**Name of district**
No. of schools		
1 Kisumu Muni.	1	8 Nyando
1		
2 Siaya	2	9 Homa Bay
1		
3 Bondo	1	10 Kisumu Dist.
1		
4 Rachuonyo	2	11 Suba
1		
5 South Kisii	3	12 Migori
2		
6 Central Kisii	3	13 Kuria
1		
7 North Kisii	4	

Western Province

Name of district		Name of district
1 Busia	2	5 Lugari
2		
2 Kakamega	4	6 Vihiga
3		
3 Bungoma	6	7 Mt. Elgon
2		
4 Butere/Mumias	3	8 Teso
1		

North Eastern Province

Name of district	No. of schools	Name of district
No. of schools		
1 Ijara	1	3 Garissa
6		
2 Wajir	4	4 Mandera
4		