A SITUATIONAL ANALYSIS OF WASTAGE IN PUBLIC PRIMARY SCHOOLS IN EMBU COUNTY, KENYA

BY

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JUNE, 2012
DECLARATION

This is my original work and has not been submitted to any other institution or University for any other programme.

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This project has been submitted for examination with our approval as the University Supervisors.

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Finally, I wish to acknowledge the patience of my family during the trying moments of undertaking my course. The knowledge that my success will be theirs too, has kept them patient.
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<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ASAL</td>
<td>Arid and Semi-arid Lands</td>
</tr>
<tr>
<td>DEO</td>
<td>District Education Officer</td>
</tr>
<tr>
<td>EFA</td>
<td>Education for All</td>
</tr>
<tr>
<td>EMIS</td>
<td>Education Management Information Systems</td>
</tr>
<tr>
<td>EPDC</td>
<td>Education Policy and Data Centre</td>
</tr>
<tr>
<td>FPE</td>
<td>Free Primary Education</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>IIIEP</td>
<td>International Institute for Educational Planning</td>
</tr>
<tr>
<td>ILO</td>
<td>International Labour Organization</td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
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<tr>
<td>IPEC</td>
<td>International Programme on the Elimination of Child Labour</td>
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<tr>
<td>KNBS</td>
<td>Kenya National Bureau of Statistics</td>
</tr>
<tr>
<td>MDGs</td>
<td>Millennium Development Goals</td>
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<tr>
<td>MoE</td>
<td>Ministry of Education</td>
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<tr>
<td>NER</td>
<td>Net Enrollment Ratio</td>
</tr>
<tr>
<td>PCR</td>
<td>Primary school Completion Rate</td>
</tr>
<tr>
<td>SMC</td>
<td>School Management Committee</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Education, Science and Cultural Organization</td>
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<td>UPE</td>
<td>Universal Primary Education</td>
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<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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ABSTRACT

Many governments have made commitment to expand educational opportunities for children by 2015. This is mainly in response to international conventions which recognize education as a necessity and a fundamental human right. Despite these efforts, wastage in form of drop outs and repetition inhibits the realization of the set goals particularly the Universal Primary Education. Implementation of Free Primary Education in Kenya in 2003 was a milestone but wastage is a challenge towards its achievement. The purpose of the study was to assess wastage in public primary schools in Embu County in order to highlight and suggest solutions to the problem. The project identified the forms of wastage, found out the extent and magnitude of wastage and also the impact of wastage as measured by primary school completion rates and eventually identified appropriate strategies to mitigate wastage in public primary schools in Embu County. The study employed the Classical Liberal Theory by Jean Jacques Rousseau (1754). The theory states that education systems should be designed so as to remove barriers that prevent children from pursuing education efficiently. The study adopted a descriptive survey study. It targeted the 372 public primary schools in Embu County. Through purposive sampling technique the researcher selected one boarding school, one special school and eleven day schools. The sample for the study comprised 156 pupils, 13 head teachers, 13 senior teachers, 13 school management committee (SMC) members from the 13 primary schools and 5 education officers. Thus, the total population of the respondents was 200. Data was collected by administering questionnaire and interview schedules to pupils, teachers, SMC and education officers. Piloting of the research instruments was done in two schools. Test-retest technique was used to assess reliability of the instruments. Content validity was used to test how accurately the data obtained in the study represents the variables of the study. Data collected was analyzed using descriptive statistics such as means, percentages and frequencies. The data was presented using tables, figures and graphs. The research findings indicated that the major form of wastage was repetition which prevailed mainly in the exam and pre-exam grades with failure to attain certain grades in class as the major basis of pupils’ repetition. Analysis showed that drop out was highest in Standard 7 with the total dropout rate for boys higher than girls. The study indicated that wastage had negative impact on primary school completion rates. It was also found out that wastage could be mitigated through improvement of the quality of teaching, allocation of adequate teaching and learning resources and creating conducive learning environment. From the findings, the researcher highly recommends that the Government of Kenya should continue to support the Free Primary Education policy and enhance its effectiveness in enhancing access to education. Having observed that repetition is almost as bad and that it often leads to dropout, educational policy makers should pay more attention to repetition. Suggestion for further research is on the challenges facing pupils during their transition from lower primary (Std. 1-3) to upper primary (Std. 4-8).
CHAPTER ONE
INTRODUCTION

1.0 Introduction

This chapter of the research study provides the background to the study, the statement of the problem, the purpose of the study, the objectives of the study, research questions, significance of the study, assumptions of the study, the limitations and delimitations of the study, theoretical and conceptual frameworks, and definition of central terms.

1.1 Background to the study

Basic education is both a necessity and a fundamental human right. This realization has long been recognized by the international community. The Universal Declaration of Human Rights, adopted by the United Nations (1948), asserted that 'everyone has a right to education'. Subsequent international conferences and normative texts have reaffirmed this goal and sought to provide Education for All. According to the Inter-Agency Commission (1990), the World Conference on Education for All was convened during the International Literacy Year, in Jomtien, Thailand, to address concerns about the inadequate provision of basic education, especially in the developing countries. Achieving the goals embraced at Jomtien requires not only that children be admitted to school when they are of age, but that they complete the entire primary cycle and, equally important, actually learn at an appropriate level (UNESCO, 1998).
In April 2000 more than 1,100 participants from 164 countries gathered in Dakar, Senegal, for the World Education Forum. The participants, ranging from teachers to prime ministers, academics to policymakers, non-governmental bodies to the heads of major international organizations, adopted the 2000-world Dakar Framework for Action, Education for All. Together with partner organizations from around the world, they made a collective commitment to dramatically expand educational opportunities for children, youth and adults by 2015. Participants at the World Education Forum in Dakar, Senegal, endorsed a comprehensive vision of education, anchored in human rights, affirming the importance of learning at all ages and emphasizing the need for special measures to reach the poorest, most vulnerable and most disadvantaged groups in society. When the Dakar forum was held, over 100 million children of primary school age were out of school (UNESCO, 2000). By 2007, the figure had fallen to 72 million. This headline figure bears testimony to national governments’ efforts. However, on current trends, some 56 million children could still be out of school in 2015 (UNESCO, 2008).

The World community has reiterated its commitment towards education provision through quest to universalize primary education. Millennium Development Goals’ (MDGs) commitment to achieve UPE by the year 2015 is conceptualized within a framework of economic development. The World Bank, among the vanguard international agencies that support UPE in developing countries, refers to education as an investment. Moreover, the economic rationale for UPE, rests on the notion that education is one of the most powerful instruments known for reducing poverty and
for inciting sustained economic growth. Many developing countries, including Kenya, cite the rationale discussed above as the basis for their UPE programs (MoEST, 2004). In Kenya, education is a key pillar for human development towards the realization of Vision 2030 as it imparts knowledge and skills to individuals necessary for nation building (RoK, 2008).

Kenya is among the African countries that have made notable advances in the quest for Universal Primary Education (UPE). Major landmarks in this regard include free primary education, increased enrolments, and an attempt to democratize education governance through decentralized management. However, the road towards full attainment of UPE has also been marked by increasingly complex internal inefficiencies in the form of increased dropout rates, congested classrooms, shortage of teachers and basic facilities, and a policy framework that favours centralism over inclusivity. Equity concerns, with regard to gender, region, ethnicity, and socio-economic background also abound. Such shortcomings compromise the ideal of UPE, namely the provision of an education that is equitable and meaningful to all including underserved populations (RoK, 2008).

According to KNBS (2009) there was an improvement in school attendance at 40 percent compared to 35 percent in 1999 and 37 percent in 1989 respectively. In addition, there has been a gradual decline in the proportion of eligible children who are out of school. However, dropping out is still common. Dropout rates by gender and region have been varying between 2003 when it was lowest at 2.0 percent to a high of 6.5 percent in 2004 and a subsequent decline to 3.5 percent in 2007. In 2007, Western Province
had the lowest rate at 1.6 percent followed by Central and Eastern at 1.9 percent. This is a clear indication that in spite of the concerted effort by the government to introduce FPE and other interventions, wastage is still prevalent in the education system at the primary school level. This is illustrated in Table 1.1 shown below:

Table 1.1 Primary Schools Drop Out Rate by Gender and Province, 2003 - 2007

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Coast</td>
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<td>1.8</td>
<td>1.8</td>
<td>5.6</td>
<td>8.5</td>
<td>6.9</td>
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<td>7.9</td>
<td>5.4</td>
<td>5.9</td>
<td>5.6</td>
</tr>
<tr>
<td>Central</td>
<td>1.0</td>
<td>0.9</td>
<td>0.9</td>
<td>5.2</td>
<td>3.9</td>
<td>4.5</td>
<td>3.5</td>
<td>3.2</td>
<td>3.4</td>
<td>4.6</td>
<td>2.2</td>
<td>3.4</td>
<td>2.2</td>
<td>1.6</td>
<td>1.9</td>
</tr>
<tr>
<td>Eastern</td>
<td>1.0</td>
<td>0.9</td>
<td>0.9</td>
<td>5.2</td>
<td>3.9</td>
<td>4.5</td>
<td>3.5</td>
<td>3.2</td>
<td>3.4</td>
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<td>3.4</td>
<td>2.2</td>
<td>1.6</td>
<td>1.9</td>
</tr>
<tr>
<td>Nairobi</td>
<td>1.9</td>
<td>1.4</td>
<td>1.6</td>
<td>5.7</td>
<td>5.6</td>
<td>5.6</td>
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<td>6.5</td>
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<td>5.6</td>
<td>6.6</td>
<td>4.2</td>
<td>4.1</td>
<td>4.1</td>
</tr>
<tr>
<td>Rift Valley</td>
<td>2.3</td>
<td>2.2</td>
<td>2.2</td>
<td>6.5</td>
<td>7.2</td>
<td>6.9</td>
<td>4.7</td>
<td>4.3</td>
<td>4.5</td>
<td>6.3</td>
<td>5.2</td>
<td>5.6</td>
<td>3.5</td>
<td>3.6</td>
<td>3.6</td>
</tr>
<tr>
<td>Western</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
<td>6.6</td>
<td>7.8</td>
<td>7.2</td>
<td>5.6</td>
<td>4.4</td>
<td>5.0</td>
<td>9.9</td>
<td>9.6</td>
<td>9.7</td>
<td>1.1</td>
<td>2.2</td>
<td>1.6</td>
</tr>
<tr>
<td>Nyanza</td>
<td>2.8</td>
<td>3.1</td>
<td>2.9</td>
<td>6.5</td>
<td>9.2</td>
<td>7.8</td>
<td>3.9</td>
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<td>4.6</td>
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<td>6.1</td>
<td>2.3</td>
<td>4.4</td>
<td>3.5</td>
</tr>
<tr>
<td>North Eastern</td>
<td>2.3</td>
<td>3.1</td>
<td>2.6</td>
<td>12.2</td>
<td>14.1</td>
<td>15.3</td>
<td>6.4</td>
<td>8.1</td>
<td>7.1</td>
<td>8.7</td>
<td>15.9</td>
<td>11.5</td>
<td>4.1</td>
<td>6.1</td>
<td>4.7</td>
</tr>
<tr>
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<td>2.1</td>
<td>2.2</td>
<td>2.2</td>
<td>6.1</td>
<td>6.9</td>
<td>6.5</td>
<td>5.0</td>
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<td>4.9</td>
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<td>5.9</td>
<td>6.4</td>
<td>3.2</td>
<td>3.7</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Source: EMIS (2007), MoE

In addition, repetition in schools has become rampant. According to MoE (2009a) statistics, there is a sharp difference between enrolments of pupils of the same cohort at standard 7 and 8 in primary schools. For example, out of 822,202 pupils who were in standard 7 in 2007 only 683,533 of this cohort transited to standard 8 and enrolled for Kenya certificate of primary education (KCPE) in 2008, thus giving a difference of 138,669 (17%) between the two classes. This means that 17 percent of standard 7 pupils were not accounted for hence they either dropped out of school or repeated standard 7 class. Nyanza, Western and Rift Valley provinces contributed a total drop
out of 129,252 out of the 138,669. This is an indication that repetition and drop out are rampant in Kenya hence contributing to wastage.

Wastage is observed in primary schools across the country with a serious impact being experienced in ASAL regions, many rural areas, urban informal settlements and other low potential areas. In Embu County, wastage is prevalent in the public primary schools especially in the expansive parts namely Mbeere South and Mbeere North districts. Children are starting primary school in greater numbers than ever before but wastage especially in form of repetition and dropout rates are significant and lead to low levels of primary school completion. This is indicated especially by the sharp difference between enrolment of pupils of the same cohort at standard 7 and 8 in Mbeere South district in Table 1.2 shown below:

Table 1.2 Mbeere South District Std.5-8 Enrolments: 2008-2011

<table>
<thead>
<tr>
<th>YEAR</th>
<th>STD. 5</th>
<th>STD. 6</th>
<th>STD. 7</th>
<th>STD. 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>3,915</td>
<td>3,836</td>
<td>3,520</td>
<td>2,606</td>
</tr>
<tr>
<td>2009</td>
<td>4,014</td>
<td>3,911</td>
<td>3,566</td>
<td>2,617</td>
</tr>
<tr>
<td>2010</td>
<td>4,164</td>
<td>3,971</td>
<td>3,586</td>
<td>2,636</td>
</tr>
<tr>
<td>2011</td>
<td>4,279</td>
<td>4,021</td>
<td>3,602</td>
<td>2,650</td>
</tr>
</tbody>
</table>

Source: DEO Mbeere South (2011)

The data indicates that as pupils transit to the next grade there is wastage. For example, out of the 3,586 std. 7 pupils in 2010, only 2,650 proceeded to std. 8 in
2011. The difference of 936 pupils (26 percent) is unaccounted for and so it is considered as wastage either in form of repetition or drop out.

Wastage, in respect to education, refers to human and material resources spent or ‘wasted’ on pupils who have to repeat a grade or who drop out of school before completing a cycle. It denotes the inefficiency of a school system and refers also to the wasted opportunities for these children to develop the knowledge, skills attitudes and values they need to live productive lives and to continue learning (UNESCO, 1998). Implementation of FPE in Kenya in 2003 is a significant development, particularly in light of the government’s effort to respond to global priorities outlined in key framework documents such as the Millennium Developments Goals. However, there are glaring obstacles that are keeping children out of school. Many studies have been done on wastage but considering its prevalence there remains a lot to be sought in order to find remedies that are effective in the current state of affairs.

1.2 Statement of the problem

Significant progress has been made in increasing the number of pupils enrolled in school in Kenya through the introduction of FPE and other interventions. However, these gains are undermined by the persistently large number of pupils who take more than one year to complete a particular grade and/or who drop out of school before completing even the primary cycle. Many children are registered in schools but fail to attend, participate but fail to learn, are enrolled for several years but fail to progress and drop out from school. This is corroborated by EMIS (2007) data in
Table 1.1. Failure to complete a basic cycle of primary school not only limits future opportunities for children but also represents a significant drain on the limited resources that countries have for the provision of primary education. Wastage imposes enormous costs on education systems and also on the individuals and societies that they serve. Repeating grades and dropping out exact personal toll on the pupils involved and absorb a large share of the limited resources available for education. This is a serious problem with dire consequences for the future development of the society. It is likely to result in wastage of financial and human resources; a doubling of UPE costs; a failure of students to master basic knowledge and skills; and the failure to attain the overall objective of transforming Kenya into a developed society and subsequently eradicating poverty from the nation. This necessitates the study on wastage in public primary schools in Embu County in order to avert the situation and also form a basis on which others can develop their studies.

1.3 Purpose of the study

The purpose of this study was to assess wastage in public primary schools in Embu County in order to highlight and provide solutions to the problem.

1.4 Objectives of the study:

1. To identify the forms of wastage in public primary schools in Embu County.
2. To find out the extent and magnitude of wastage in public primary schools in Embu County.
3. To find out the impact of wastage as measured by primary school completion rates in public primary schools in Embu County.
4. To identify appropriate strategies to mitigate wastage in public primary schools in Embu County.

1.5 Research questions:

1. What are the forms of wastage in public primary schools in Embu County?
2. What is the extent and magnitude of wastage in public primary schools in Embu County?
3. What is the impact of wastage as measured by primary school completion rates in public primary schools in Embu County?
4. What appropriate strategies can be taken to mitigate wastage in public primary schools in Embu County?

1.6 Significance of the study

The research study analyzed the situation of wastage in public primary schools in Embu County in order to find ways of solving the problem. This study established strategies for the implementation of UPE and EFA by enhancing access, equity and quality of education among children of all backgrounds. This study sought to enlighten the educational planners and policy makers particularly in the Ministry of Education in terms of achieving the UPE and EFA goals by making valid appropriate recommendations regarding wastage in public primary schools. This study also sought to assist to bolster interventions on problems related access, equity and quality in the provision of primary education. The study also forms a basis on which others can develop their studies.
1.7 Assumptions of the study

1. All respondents will be co-operative and provide reliable responses.

2. All public primary schools submit statistical data to the district education office on monthly basis.

3. All public primary schools keep enrollment data for every year.

4. All public primary schools keep repetition and drop out data that are comprehensively analyzed.

1.8 Limitations of the study

1. The study will be confined to only one district due to financial and other logistic constraints.

2. It will not be possible to cover the opinions of parents because tracing them will require considerable time, resources and other logistics.

3. Some respondents may give unreliable information due to lack of experience in data provision. The researcher will use assistants to address such occurrence.

1.9 Delimitations of the study

1. The study will be confined to public primary schools which enjoy direct government support in the provision of education. Therefore, private primary schools will be outside the scope of the study.

2. The respondents will be practicing teachers and/or education officers.

3. The pupils to be included in the sample are those who are in session in their respective schools by the time of study. The absentees will not be included.
1.10 Theoretical Framework

This study was guided by the Classical Liberal Theory by Rousseau (1754), a Swiss-born French theorist of equal opportunity. Rousseau became famous as a 'French' political philosopher and educationalist. He was a specialist in theories and methods of teaching. His work offers great insight. His thinking has influenced subsequent generations of educational thinkers. Rousseau argued that we are inherently good, but we become corrupted by the evils of society. Humans are by nature good and it is society's institutions that corrupt them (Smith and Smith, 1994). He asserts that humans are born capable of sensation and from birth are affected in diverse ways by the objects around us. On the development of the person, Rousseau believed it was possible to preserve the original nature of the child by careful control of his education and environment based on an analysis of the different physical and psychological stages through which he passed from birth to maturity (Stewart and McCann, 1967). Rousseau condemns distribution of wealth, property and prestige that generate social inequalities. In the original state of nature, according to Rousseau, people were "noble savage", innocent, free and uncorrupted. It was socioeconomic artificialities that corrupted people. Classical Liberal Theory posts that education can remove these barriers hence enable individual to achieve their potential (Ornstein, 1997).

Classical Liberal Theory was found relevant for the proposed study. This is because of its consideration of equity and efficiency as the outcome of appropriate methods of teaching and conducive learning environment. This theory puts emphasis on
careful control of a child’s education and environment in order to ensure equity and efficiency in education. By putting such measures in place, wastage is alleviated in schools as it emanates from poor living conditions that surround the child. Wastage is prevalent in schools whose pupils are encompassed by conditions such as poverty, unemployment and low income as they are a basis of unconducive learning environment. This is because families in such conditions are occasioned by the inability to sustain their children in schools hence affecting equity and efficiency of education. At school, conditions such as inadequate teaching and learning materials and poor curriculum implementation inhibit equity and efficiency as educational outcome is compromised. This explains why Rousseau insisted that in order to preserve the child’s natural goodness; the early formative stages should be free from society’s corruption as this may reduce the chances of the child’s access to educational opportunities even if free primary education is offered by the government. Similarly, Wain (2011) made invaluable contributions to the Classical Liberal Theory through his observation that the best government should provide an active and "happy" life for its people as this will foster positivity towards education.

Classical Liberal theory can be applied by putting remedial measures in place. This includes breaking the chain of poverty among families hence improving the circumstances in which children are born and brought up, eliminating disparities as the theory demands for further going through education on the basis of individual’s merit and not on social background and by ensuring that all children, including girls, children in difficult circumstances, and those from marginalized/vulnerable groups,
have access to and complete free and compulsory primary education. This is by removing handicaps that jeopardize social equity hence facilitating provision of standard education (Republic of Kenya, 2005).
1.11. Conceptual Framework

The conceptual framework depicted in Figure 1.1 captures the major variables and their relationships:

**Factors motivating the Learner:**
- Adequate basic needs
- Enhanced security
- Child friendly schools
- Adequate teaching and learning materials

**Factors de-motivating the Learner**
- Inadequate basic needs
- Insecurity
- Unconducive learning environment
- Poor curriculum implementation

**Equity and efficiency indicators:**
- Improved access and quality
- Improved participation
- High retention capacity
- High completion rates

**Equity and efficiency**

**Wastage**

**Inequity and inefficiency indicators:**
- School non-completion
- Poor performance
- Class repetition
- School drop out

*Figure 1.1 Conceptual framework*

*Source: Researcher*

The above conceptual framework illustrates that equity and efficiency in education mainly depend on learning motivational factors such as provision of adequate basic
needs, enhanced security, child friendly schools and availability of adequate teaching and learning materials. On the contrary, when learners are de-motivated by factors such as inadequate basic needs, insecurity, unconducive learning environment and poor curriculum implementation, wastage occurs as a result of inequity and inefficiency which are associated with irregular attendance, poor performance, repetition and drop outs.

Improving the environment in which the child grows up in, ensuring access to basic needs, providing financial incentives and promoting family values have all been identified as ways to curb wastage in schools. This creates a learning environment that allows the child’s innate nature goodness to flourish. The outcome of such an environment is improved access to education, provision of quality education, improved participation, high retention capacity and high completion rates. These are the indicators of equity and efficiency in an education system. The situation analysis of wastage in public primary schools in Embu County indicates that living conditions within the household, school and child’s context are key determinants of equity and efficiency in the education system. Thus, this conceptual framework was considered useful for the study.
1.12 Definition of central terms

Access: Access means a channel, a passage, an entrance or a doorway to education.

Completion rate: It is the ratio of the total number of pupils successfully completing or graduating from the year of a cycle in a given year to the total number of children of official graduation age in the population.

Drop out: A dropout is the pupil who leaves school before the completion of a given stage of education.

Efficiency: It comprises “the amount of learning achieved during school age attendance, compared to the resources provided. The percentage of entering students who complete the course is often used as (its) measure”.

Gross enrolment: Gross enrolment is the total enrolment of pupils in a grade or cycle or level of education, regardless of age, in a given school year.

Net enrolment rate: Enrolment of the official age-group for a given level of education expressed as a percentage of the corresponding population.

Repeaters: Pupils from a cohort enrolled in a given grade at a given school-year who studies in the same grade in the following school-year.

Wastage: In respect to education, refers to human and material resources spent or 'wasted' on pupils who have to repeat a grade or who drop out of school before completing a cycle. It denotes the inefficiency of a school system and refers also to the wasted opportunities for these children to develop the knowledge, skills, attitudes and values they need to live productive lives and to continue learn.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter contains a review of the selected literature of different scholars and researchers on the issue of wastage in primary school education. The literature review was discussed while focusing on various perspectives:

(i) Forms of educational wastage
(ii) Wastage on a Global perspective
(iii) Wastage in the sub-Saharan Africa
(iv) Wastage in Kenya
(v) Summary.

2.2 Forms of Educational Wastage

According to UNESCO (1998), the most serious and harmful wastage was evident in the millions of primary-school-age children who are not enrolled in school, of which three out of five are girls. An obvious and blatant form of wastage involves pupils who start school but drop out before they reach a level of sustainable literacy and numeracy. Another, but less evident, form of wastage concerns the pupils who complete the primary cycle but fail to gain the intellectual, social, cultural and ethical knowledge and skills that schooling should provide. Surveys in industrialized and developing countries alike have found, for example, that a substantial proportion of children complete their primary-school education without acquiring even an adequate mastery of reading. Children who never gain access to school and those
who enroll but do not attain an adequate level of learning constitute a tragic waste of
the human, social and economic potential of the countries concerned. A more narrow
operational definition of school wastage refers to pupils who do not complete their
schooling in the prescribed number of years either because they drop out of school
entirely or because they repeat one or more grades. In a very broad sense, the
phenomenon of primary-school wastage is evident in the large numbers of children
who, for one reason or another, do not succeed in acquiring the full range of skills
offered through primary schooling.

Research by UNESCO (1998) describes drop out and repetition as educational
wastage. It is a waste of inputs since the output is not there as planned. In other
words, educational wastage is defined as the input/output ratio, as an issue of cost-
efficiency. Anything below completion of a defined school cycle is wastage be it five
years or one year of survival. Or, in the case of repetition, the years repeated are
wastage as the student then occupies a place for someone else, or the cost for one of
his/her school years is paid twice. Dropping out or repeating represents an
educational wastage from a strict economic perspective. Drop out is a student who
leaves school before completion of a cycle such as the primary level. Drop out as a
measure of wastage or efficiency of school or education system is measured by a
method of cohort analysis. A pupil cohort is a group of pupils who enter the first
cycle of a school in the same year. The commonly used way of cohort analysis is that
the enrolment in one grade in a given year is compared with enrolment of the
consecutive grade during the following years. The decrease from one year to the next year is considered as the dropout rate.

2.3 Wastage on a Global Perspective

Persistent high rates of wastage impose enormous costs on education systems and also on the individuals and societies that they serve. Wastage substantially reduces the capacity of school systems to meet the objectives of education for all. Pupils who require more than one year to complete a grade take up space, teaching time, textbooks and other resources that could be devoted instead to other pupils. In Cambodia, for example, where four out of every ten pupils at any given time are repeaters, the Asian Development Bank estimated that serving these repeaters requires 10,000 additional teachers and 5,000 more classrooms, that is, 20 per cent of the existing stock. Furthermore when many pupils repeat grades, some classes become abnormally large, making the teaching and learning conditions difficult for everyone. Wastage has important long-term effects on patterns of adult illiteracy. It is widely recognized that children who drop out of school before acquiring basic literacy and numeracy skills frequently relapse into illiteracy. Estimates based on a simulation model project that 57 per cent of the illiterate adults (aged 15 and over) constituting the target population for literacy instruction in the less developed regions over the period 1995-2005 would comprise the backlog of adults who were illiterate at the beginning of the period. Another 21 per cent would be children reaching age 15 during the period and who had no access to schooling, while 22 per cent more would be children reaching age 15 and dropping out of school before
reaching Grade 5 (UNESCO, 1998). According to the World Bank, the Government of Malawi for example allocated 4.2 percent of Gross Domestic Product towards public educational expenditure in 2007, which represented around 195 million dollars. Of this, 55 percent was allocated towards primary school. With a primary school dropout rate of 65 percent in 2007, it is estimated that nearly half a million school places were taken up by children who fail to complete primary school. In monetary terms, this broadly represented an annual expenditure of 60 million dollars, 1.3 percent of GDP in 2007, on the education of children who probably left schooling without any basic skills (UNESCO, 2010).

Maintaining policies that lead to repetition of grades by large numbers of pupils is expensive. The cost of repetition alone was estimated to total at least US$6 billion for all regions together, with Latin America and the Caribbean region accounting for about half of the total. The cost of total wastage in the first four grades was estimated to absorb some 16 per cent of public current expenditure on education in the less developed regions. Regardless of its pedagogical effects, repeating grades is inefficient because it increases the per pupil cost of schooling without increasing the number of graduates produced. Resources devoted to a repeater are resources that could have been used either to permit another child to enter school or to improve the quality of instruction for pupils already there. Children who drop out of school before acquiring sustainable reading and writing skills frequently relapse into illiteracy. Thus dropping out undermines efforts to reduce adult illiteracy. Children and adolescents out of school in urban areas are also more vulnerable to the
attractions of street life and organized gangs of children, which contributes to problems of delinquency and crime. Furthermore, school wastage promotes a ‘culture of failure’. Pupils who are unable to proceed with their classmates to the next grade frequently face problems of self-esteem and are likely to develop negative attitudes toward schooling. Repeaters thus become likely candidates for dropping out entirely.

Under optimal circumstances, every primary-school pupil would spend one year at each grade level and complete a five-year cycle in five years, or a six year cycle in six years, and so on. When pupils repeat grades or drop out, however, the average number of ‘pupil-years’ required to move pupils through the cycle exceeds the prescribed number of years. Among the primary school drop-outs in rural areas, nearly half (47.5 per cent) worked on farms, while 7.5 per cent were in part-time or other employment, compared with 27.3 per cent of the urban drop-outs who were in part time employment. In both cases over one third were staying at home. Contrary to popular beliefs, repeating a grade does not help students gain ground academically and has a negative impact on social adjustment and self esteem. No matter how much parents and educators try to portray repetition in a constructive light, pupils who do not progress to the next grade level with their peers invariably struggle with problems of self-esteem. Not surprisingly, researchers have found that repeaters tend to develop highly negative attitudes toward school. Repeating early grades frequently leads to further retention down the road, which in turn can lead to dropping out entirely. A report by the Carnegie Council on Adolescent Development estimated
that single grade retention increases the likelihood of drop-out by 40 to 50 per cent. A second one raises the risk to 90 per cent. Thus, failure to complete a basic cycle of primary school not only limits future opportunities for children but also represents a significant drain on the limited resources that countries have for the provision of primary education (UNESCO, 2010).

According to UNESCO (1998) an estimate of 250 million children between the ages of 5 and 14 are toiling in the workforce of developing countries. About half of these children work full-time, while the rest combine work with schooling or other non-economic activities. However, these estimates do not take into account children who work full-time for their families doing agricultural work or taking care of younger siblings. International Labour Organization (ILO) statistics shows that more boys work than girls by a margin of three to two, but the data probably underestimate the unpaid domestic work of girls. In absolute numbers, Asia accounts for three out of five child workers, whereas Africa accounts for one out of three. Some 7 per cent live in Latin America and less than 1 per cent in Oceania. In relative terms, however, child labour is most common in Africa, where an estimated 41 per cent of children aged 5 to 14 are working, compared with about 21 per cent in Asia, 17 per cent in Latin America and 10 per cent in Oceania. In all regions, the proportion of child workers is much higher in rural areas than in urban centers.
2.4 Wastage in the sub-Saharan Africa

Policies to improve access, school progression and reduce wastage are critical if Universal Primary Education (UPE) is to be achieved. Many countries are still experiencing educational wastage in alarming trends. In Benin, for example, the primary school completion rate in 2005 was 62 percent, although it increased steadily from 38 percent in 2000. In the Democratic Republic of Congo, the primary school completion rate in 2007 was 51 percent, which was the same completion rate for the country in the early 1990s. According to Alexander (2008), primary school completion rate in Bangladesh has remained around 60 percent since 2000. As a result of substantial rates of drop out and non-completion of primary school many children are leaving schooling without acquiring the most basic skills. Their brief schooling experience consists frequently of limited learning opportunities in overcrowded classrooms with insufficient learning materials and under-qualified teachers.

Age-specific dropout rates for older children increase drastically after the age of 10. In some countries such as Niger in 2006 and Burkina Faso in 2003 more than one-quarter of 14 year old children who started school dropped out. This result reinforces the finding that the older the child is, the greater the chances of not completing the basic cycle of primary school (Cameron, 2005). This is due to the fact that for older children the opportunity cost of schooling increases significantly and with this a pressure to work or to get married (UNESCO, 2005). These findings are also complemented and further reinforced by the work of Education Policy and Data
Center (2009). Education Policy and Data Center (EPDC) findings in the developing countries suggest that there is a strong positive relationship between relative age-in-grade and dropout rates at the end of primary school. During the final year of primary school, children who are over age by two or more years have the highest dropout rates in the developing countries. The next highest dropout rate is for children who are over age by one year, followed by children who are on time for their grade and finally, the lowest dropout rate for the final year of primary school is for children who are underage but who have managed to reach the final year of primary school.

Wastage rates differ significantly between countries. UNESCO (2010) identifies the trends using data from Demographic Health Surveys on the population of 16 and 17 year olds, assuming that by this age children should have completed a cycle of primary school. In Kenya, the proportion of 16 and 17 year olds without access to education was 9.1 percent in 2003. Of those who attended school, 16.1 percent dropped out without completing primary school. In addition, it is also estimated that 45 percent of 16 and 17 year olds in Kenya are still in primary school, which means that these children are over age, with an increased risk of dropping out. Only 38 percent of these cohorts completed primary school. Assuming that the educational experience of these cohorts reflects the inefficiencies of the system, Kenya has a relatively big problem of over age children in primary school, but a relatively small problem with respect to access to school and relatively sustained enrolment rates. In Malawi, Rwanda and Uganda over age children in school is also a problem, perhaps
not as high as in Kenya, but non-completion of primary school remains relatively high as indicated by the high dropout rate and low completion rate for these cohorts. Other countries have a large proportion of children out of school, which means that initial enrolment rates are low, dropout rates are relatively high and the proportion of over age children is relatively small. This is the case of Niger in 2006, where 56 percent of 16 and 17 year old were ever enrolled in school; of those were enrolled 30 percent dropped out, but only 7 percent remained over age in primary school. Mali, Burkina Faso, Senegal and Benin showed similar patterns. The table below illustrates the drop out situation in sub-Saharan Africa in 2006 on the basis of wealth, gender and location:
<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>WEALTH</th>
<th>GENDER</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RICH</td>
<td>POOR</td>
<td>BOYS</td>
</tr>
<tr>
<td>BURKINA FASO</td>
<td>18.0%</td>
<td>40.2%</td>
<td>27.6%</td>
</tr>
<tr>
<td>BENIN</td>
<td>12.9%</td>
<td>30.4%</td>
<td>14.5%</td>
</tr>
<tr>
<td>CAMEROON</td>
<td>4.6%</td>
<td>27.5%</td>
<td>11.0%</td>
</tr>
<tr>
<td>GHANA</td>
<td>4.7%</td>
<td>20.8%</td>
<td>8.5%</td>
</tr>
<tr>
<td>KENYA</td>
<td>17.6%</td>
<td>19.9%</td>
<td>12.8%</td>
</tr>
<tr>
<td>MADAGASCAR</td>
<td>11.7%</td>
<td>69.8%</td>
<td>28.7%</td>
</tr>
<tr>
<td>MALAWI</td>
<td>12.0%</td>
<td>37.2%</td>
<td>22.0%</td>
</tr>
<tr>
<td>NIGERIA</td>
<td>0.7%</td>
<td>6.7%</td>
<td>1.6%</td>
</tr>
<tr>
<td>RWANDA</td>
<td>39.0%</td>
<td>56.5%</td>
<td>44.6%</td>
</tr>
<tr>
<td>SENEGAL</td>
<td>23.3%</td>
<td>34.4%</td>
<td>26.4%</td>
</tr>
<tr>
<td>TANZANIA</td>
<td>7.6%</td>
<td>14.3%</td>
<td>12.2%</td>
</tr>
<tr>
<td>UGANDA</td>
<td>12.0%</td>
<td>32.6%</td>
<td>19.4%</td>
</tr>
<tr>
<td>ZAMBIA</td>
<td>2.6%</td>
<td>22.3%</td>
<td>7.8%</td>
</tr>
</tbody>
</table>

Source: Demographic Health Survey (2006)
Typically, national education plans assume that primary school progression will improve automatically as a result of interventions designed to improve initial access and educational quality. Nevertheless, improving progression in primary school may not necessarily be about improving the quality of education alone. Although these countries have shown clear progress on average, issues around the links between social exclusion and drop out and completion rates from primary school still remain to be solved. Marginalized groups are most seriously at risk of dropping out and they often remain hidden to policy and interventions (UNESCO, 2010).

2.5 Wastage in Kenya

Kombo (2006) identifies that in Kenya, educational wastage especially in form of dropout is significantly higher among low income families. Among the many factors that contribute to students dropping out of the school system, poverty is the major cause. Lack of parental economic stability leads some children to absent themselves from school to search for food and offer their labour in such enterprises as tea and coffee picking, quarries, soap stone industries, sand harvesting, hawking, herding and as house helps. According to UNESCO (2005), girls from poor families have at times been pulled out of school and married off or employed as domestic workers to ensure financial support for their families. Girls are sometimes married off to raise income to educate boys. Significantly, retention rates for children from low income families are at least twice as high as those for children from high income families. Since children from poor families are less likely to receive instruction from well-
qualified and highly effective teachers, their academic difficulties are exacerbated, not solved, by grade retention. In many developing countries such as Kenya, child labour is a major obstacle both to providing universal access to schooling and to reducing school wastage.

According to UNESCO (1998), child labour and absenteeism from school feed on each other. Thus, measures to reduce child labour or to improve the coverage and quality of schooling tend to produce benefits in both areas. Many countries are making serious efforts to reduce child labour. The International Programme on the Elimination of Child Labour (IPEC), established by ILO, offers assistance to countries with explicit national programmes to combat the problem. ILO and the United Nations Children’s Fund (UNICEF) are committed to working together to eliminate child labour and ILO is preparing a draft convention that will strengthen the international legal framework against the problem.

Poverty is generally seen as the most compelling reason for children to work, but researchers have found that poverty need not cause child labour. Educated individuals are more likely to be productive and successful workers, to have higher educational aspirations for their children and to understand that child labour is actually a weight on society.

In countries with high stake examinations at the end of primary school, for example Kenya, gross enrolment rate at the end of primary school can be affected by children who repeat, or are encouraged to repeat, to increase their chances for a successful transition into secondary school. In these cases, gross enrolment rates in the final year of primary school are likely to go up. According to the Economic Survey
(2010), the gross enrolment rate (GER) in Kenya rose from 109.8% in 2008 to 110% in the year 2009. The gross enrolment ratio for boys is still higher than that of girls, standing at 112.8% while for girls was 112.2% in 2009. Though there has been a marked general growth in enrolment rates and close gender parity especially with the introduction of FPE, the regional and gender disparities are evident especially in the ASAL districts, pockets of poverty and the urban slums. Enrolment, retention, completion and progression rates are a major challenge and a concern of the millennium goal on education.

According to the Economic Survey (2011), more than 400,000 pupils who enrolled in school under the free primary education programme in Kenya did not complete Standard Eight in 2010. They were either forced to repeat or they dropped out. Repeating a class, which is in contravention of set guidelines, was particularly high among pupils in Standard Six, standing at 14 per cent. The economic survey tracked the first class of the free learning programme started in 2003 and established that only 59 per cent of the beneficiaries completed primary school last year. “This causes concern on the high level of wastage in the education system, which can be attributed to repetition and dropouts,” report says.

Kombo (2006) points out that educational wastage in Kenya ranges from 30% to 47% and that it is more prevalent among the low income families. According to MoE (2009 a) statistics, repetition in schools has become rampant in spite of the FPE policy. There is a sharp difference between enrolment of pupils of the same cohort at standard 7 and 8 in primary schools. For example, out of 822,202 pupils who were in standard 7 in 2007 only 683,533 of this cohort transited to standard 8 and enrolled for Kenya Certificate of Primary Education (KCPE) in 2008, thus giving a total drop
out of 138,669 between the two classes. Nyanza, Western and Rift Valley provinces contributed a total drop out of 129,252 out of the 138,669. MoE (2009 b) reports that although the primary schools Net Enrolment Rate (NER) in Kenya has substantially improved from 77.3 percent in 2002 to 92.5 percent in 2008, there are still 595,095 children that are out of school (7.5 percent of primary school going age population). This is an indication of prevalence of educational wastage in Kenya. In 2008, there were fewer standard 8 graduates as compared to 2007 with the primary school completion rate (PCR) at 79.5 percent and 81.0 percent respectively. Nairobi and North Eastern provinces had the lowest PCR recording 55.4 percent and 36.5 percent respectively. In 2003, the primary schools registered a dropout rate of 2.0 percent rising to 6.5 percent in 2004. However, the trend changed from 4.9 percent in 2005 to 3.5 percent in 2007. In 2008, 3.7 percent of the girls dropped out as compared to 3.2 percent for boys.

JMathooko (2009) points out that as the government of Kenya continues to address issues of access, retention, equity, quality and relevance as well as internal and external efficiencies of the education system pupils are being lured out of school particularly to engage in business. Children who feel inadequate in class and are not able to cope in terms of performance are usually the first drop outs. By failing to complete education within the minimum time and failing to achieve good grades, the social cost of education increases without necessarily increasing the social benefits. The low internal efficiency of the education system simply implies more wastage and increased cost of education.
With the introduction of FPE, it was hoped that this would lower the cost burden on parents and provide opportunity for the children especially those from the low income families to enjoy the right of education without interruption. However, this has not been the case in most rural, urban slums and in the hard to reach areas of the country. There are a number of factors that push children out of school. These include abject poverty and need to supplement the meager family incomes, hope of making quick money for personal use, lack of role models in the villages where they come from as well as rampant unemployment among their older educated brothers and sisters. As soon as boys already lured into petty business develop muscles due to extraneous work associated with trade, they consider themselves adults and turn to seducing school girls. This becomes a bigger added problem and a threat to the education of the girls as well. These rural girls lack knowledge to protect themselves from the aggressors and easily fall prey. Like boys, girls also drop out of school (UNESCO, 2010).

2.6 Summary

As is evident in several policy documents, in Kenya, the three post-independence governments have prioritized and developed Universal Primary Education as a means of attaining the global target for Education for All (Abagi, 1999). Tangible achievements have been made in this regard. One of these landmark achievements has been the provision of free primary education and subsequent increases to enrolments, especially after 2003 (Sifuna, 2008). However, beyond the euphoria over the alleged success of the free primary education initiative and the increased
enrolments, there has been little policy attention to issues of equitable access, relevance, quality, and outcomes of primary school education.

After reviewing the literature on the concept of wastage in public primary schools, it is clear that the general aspects of someone's livelihood determine performance in education. It is also clear that the causes of school wastage are multiple, but fall into two general categories: those that are rooted in the overall social and economic environment and those that stem from the way the school system itself is organized and operates. Social and economic forces are largely beyond the control of educators but may be influenced by public policies. However, certain factors contributing to school wastage can be readily addressed by education officials. The implementation of FPE in Kenya for example, should not assume the prevailing economic situations of the surrounding communities. The policies which facilitate the implementation of FPE should link with other development philosophies such as MDGs and the vision 2030. This will ensure that poverty for example, does not hinder the implementation of the policies geared towards the achievement of FPE. Many studies on wastage have been carried out. However, little has been focused on the wastage situation in the current era of Free Primary Education, hence a crucial need to carry out an investigation based on public primary schools in Embu County.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents research design, locale of the study, target population, sampling techniques, research instruments, piloting, and data collection procedures and data analysis. The section describes the procedures that were followed in conducting the study.

3.2 Research design

This research study adopted a descriptive survey study. This is a method of collecting information by interviewing or administering questionnaires to a sample of individuals. Survey is the most frequently used method for collecting information about people's attitudes, opinions, habits or any of the variety of educational or social issues (Orodho, 2010). Education makes frequent use of surveys to collect information relevant to interests and problems in its field. Studies involving surveys account for a substantial proportion of the research done in the field of education. It has also been noted that a whole range of educational problems can be investigated in survey research (Mugenda, 1999). The study aimed at collecting information from respondents' views and opinions in relation to the situational analysis of wastage in public primary schools within Embu County. Interviews and questionnaires were administered to a sample of individuals in order to solicit the desired information. The investigator identified the individuals to be surveyed and identified the means by
which they would be conducted. The data were summarized in a way that provides the designed descriptive information.

3.2.1 Variables

Variables have different roles in a certain problem. They may influence other variables, thereby determining the values of the affected variables. Such variables are referred to as independent variables. Other variables might be subject to other causes so that their values are influenced by the values of other variables. These are the dependent variables. Regarding this study, the independent variables include the factors that affect the learner either positively or negatively through motivation or de-motivation. These factors include provision of basic needs, security, learning environment and curriculum implementation. Meanwhile, indicators of equity and efficiency and their outcome constitute the dependent variables. These include access, quality, participation, retention and completion rates.

3.3 Locale of the study

The study was in Embu County, Kenya. It was limited to this area due to financial and geographical constraints as it would be very costly to cover a larger region. Purposive sampling was used to select Embu County as the expansive parts of the county are ASAL and also considered to have a high level of poverty. The physical and social environmental factors are the major causes of wastage in the county.
3.4 Target population

The study targeted 372 public primary schools in the county with a population of 179,268 (90,118 male and 89,150 female) pupils. In order to obtain data conveniently, Gachoka constituency (currently Mbeere south district) public primary schools data was utilized for the study. There are 130 public primary schools in the constituency. Out of these, one is a special school for pupils with hearing impairment, 5 are boarding primary schools and 124 of them are day primary schools. The enrolment of the 130 public primary schools is as follows:

Table 3.1 2011 Mbeere south district public primary schools enrollment by sex

<table>
<thead>
<tr>
<th>Sex</th>
<th>Enrolment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>16,289</td>
</tr>
<tr>
<td>Female</td>
<td>15,951</td>
</tr>
<tr>
<td>Total</td>
<td>32,240</td>
</tr>
</tbody>
</table>

Source: Mbeere South District Education office (2011)

3.5 Sampling Techniques and Sample Size

The total number of public primary schools in Mbeere South district is 130 while the enrolment is 32,240 pupils (16,289 boys and 15,951 girls). Out of the 130 public primary schools in Mbeere south district, 5 are boarding schools while one is a special school. Through purposive sampling technique the researcher selected one boarding school, one special school and eleven day schools. The sample for the study comprised 156 pupils, 13 head teachers, 13 senior teachers, 13 school management
committee (SMC) members selected from the 13 primary schools and 5 education officers. The total number of respondents was 200 as indicated in Table 3.2. This is because the cases of subjects are informative and/or they possess the required characteristics.

Table 3.2 Demographics of the respondents by gender

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education officers</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>2.5</td>
</tr>
<tr>
<td>Head teachers</td>
<td>10</td>
<td>3</td>
<td>13</td>
<td>6.5</td>
</tr>
<tr>
<td>Senior teachers</td>
<td>8</td>
<td>5</td>
<td>13</td>
<td>6.5</td>
</tr>
<tr>
<td>SMCs</td>
<td>10</td>
<td>3</td>
<td>13</td>
<td>6.5</td>
</tr>
<tr>
<td>Pupils</td>
<td>78</td>
<td>78</td>
<td>156</td>
<td>78</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>110</strong></td>
<td><strong>90</strong></td>
<td><strong>200</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source: Researcher (2012)*

3.6 Research Instruments

The research instruments used in this study include questionnaires and interview schedules.

3.6.1 Questionnaires

Questionnaires are research instruments that gather data over a large sample and diverse regions. The questionnaires were developed as both close-ended (structured) and open-ended (unstructured). [Appendices A (i-v)] shows questionnaires for education officers, head teachers, teachers, pupils and school management...
committee respectively]. They were presented in paper format while upholding a lot of confidentiality hence there was no opportunity for bias. In order to ensure the effectiveness a pre-test was carried out with a small representative sample. This piloting aimed at finding out if the questions were measuring what they were supposed to measure, the clearness of the wording, and interpretation of the questions, the response and any research bias.

3.6.2 Interview schedules

According to Orodho (2010), interview schedules are in form of questions that are presented orally to the interviewees. They comprise a set of questions that an interviewer asks when interviewing respondents. An interview schedule makes it possible to obtain the data required to meet the specific objectives of the study. In this study, there were two interview schedules. (See appendix B). Appendix B (i) was for the education officers while appendix B (ii) was for the school management committee. The interview was meant to form a contrast or comparison basis for issues captured in the questionnaires.

3.7 Piloting

The research instruments were subjected to piloting in two schools randomly selected but not including the group that is going to be surveyed. According to Orodho (2010), piloting was necessary as it was meant to establish whether the questions were measuring what they were supposed to before proceeding with the study. Answers to the questions were looked at in order to detect errors, bias or
ambiguity. Correction was done accordingly so that the researcher could make a meaningful study.

3.7.1 Validity

Validity is how accurately the data obtained in the study represents the variables of the study. If such data is a true reflection of the variables, then inferences based on such data will be accurate and meaningful. In the research study, the researcher used content validity. The instrument was given to two groups of experts, one group to assess what concept the instrument was trying to measure while the other group determined whether the set of items accurately represented the concept under study.

3.7.2 Reliability

According to Mugenda (1999), reliability is a measure of degree to which a research instrument yields consistent results or data after repeated trials. In the research study the researcher used the test-retest technique to assess reliability of the instruments by administering the same instrument twice to the same group of subjects. The developed questionnaires were given to two schools in the pilot study group. Their responses were scored manually. The sample questionnaire was administered to the same group after two weeks. The responses were scored once more and a comparison between the two scores from the two administrations was made. The spearman rank order correlation (r) was used to compute the correlation co-efficient to establish the degree to which there is consistency in eliciting similar response every time the instrument was administered. The formula given below was used to calculate the spearman's coefficient;
\[ r_s = 1 - \frac{6 \sum d'}{n(n^2 - 1)} \]

Where;
\[ \sum d' = \text{sum of the squared differences between the pairs of ranks.} \]
\[ n = \text{the number of pairs of observations.} \]

The results obtained were + 0.56 which indicated a perfect positive relationship between the first and the second results.

### 3.8 Data collection procedure

This means gathering of specific information in order to prove or refute the facts at hand. The main idea in data collection is what is expected to be obtained and how to obtain it. Therefore, the instruments to be used, the respondents and the selected area must be put into consideration. First and foremost, the researcher acquired an introduction letter from Kenyatta University through the Department of Educational Management, Policy and Curriculum studies. This document facilitated the acquisition of authority from the University. Visitation of Education offices and learning institutions and even interaction with both teachers and learners was done smoothly without fear of intimidation.

Questionnaires were administered to the respondents through various ways and channels. Some were channeled through the heads of institutions and some by hand delivery. In some situations research assistants were applied mainly to avoid time wastage and also for cost effectiveness. In the questionnaires respondents filled in answers in written form after which the researcher collected the forms with the completed information. This means that respondents were given sufficient time to
complete answering questionnaires. After the response time was over, all the questionnaires were gathered on an agreed upon date by the researcher or research assistants.

By using interviews the researcher and research assistants was engaged in a lot of movements. Logistics of the working station and also seeking authority to meet various persons was adhered to. In many instances adherence to protocol prevailed in order to avoid any conflicts in various situations of management. Appointments were therefore given before visitations in writing or over the phone. The responses of the interviews were recorded in writing since interviews shall be put in place so that participation of the respondents could give the expected information for the study to be carried out.

3.9 Data analysis and presentation

This means examining what has been collected in a survey and make deductions and inferences. The acquired information was scrutinized and then inferences were made accordingly. Responses from questionnaires and interview schedules were organized according to pertinent issues of the study. Massive qualitative data collected from questionnaires and interviews were organized with significant patterns to reveal the picture of the data collected. Responses were analyzed, edited and coded in relation to their respective themes. By use of tables, graphs and percentages, the researcher was able to give a general overview of the problem under study. The areas or gaps for further research were pointed out in the process of the data analysis.
CHAPTER FOUR

4.0 DATA ANALYSIS, PRESENTATION OF RESULTS AND DISCUSSION

4.1 Introduction

This section presents study findings for the purpose of assessing wastage in public primary schools in Embu County in order to highlight and provide solutions to the problem. The study sought to analyze the forms of wastage and find out the extent and magnitude of wastage in public primary schools in Embu County. It sought to find out the impact of wastage on primary school completion and also identify appropriate strategies to mitigate wastage in public primary schools in Embu County. The study was conducted among 200 respondents selected through purposive sampling technique from the education offices and thirteen public primary schools comprising eleven day primary schools, one special school and one boarding school. The respondents comprised 156 pupils, 13 head teachers, 13 senior teachers, 13 school management committee (SMC) members selected from the 13 primary schools and 5 education officers. The study used questionnaires and interview schedules as the research instruments. Data collected was analyzed using descriptive statistics such as means, percentages and frequencies. The research findings were presented in order of the objectives of the study:

1. To identify the forms of wastage in public primary schools in Embu County.
2. To find out the extent and magnitude of wastage in public primary schools in Embu County.
3. To find out the impact of wastage as measured by primary school completion rates in public primary schools in Embu County.

4. To identify appropriate strategies to mitigate wastage in public primary schools in Embu County.

4.2 Demographic information of the respondents

The research involved pupils, head teachers, senior teachers, school management committee members and education officers. The respondents’ demographic information was as shown in Table 4.1.

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education officers</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>2.5</td>
</tr>
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<td>Head teachers</td>
<td>10</td>
<td>3</td>
<td>13</td>
<td>6.5</td>
</tr>
<tr>
<td>Senior teachers</td>
<td>8</td>
<td>5</td>
<td>13</td>
<td>6.5</td>
</tr>
<tr>
<td>SMCs</td>
<td>10</td>
<td>3</td>
<td>13</td>
<td>6.5</td>
</tr>
<tr>
<td>Pupils</td>
<td>78</td>
<td>78</td>
<td>156</td>
<td>78</td>
</tr>
<tr>
<td>Total</td>
<td>110</td>
<td>90</td>
<td>200</td>
<td>100</td>
</tr>
</tbody>
</table>

4.2.1 Pupil respondents by school category

A total of 156 pupils from Embu County participated in the study. Equal number of pupils was sampled from public day schools, boarding day schools and special schools. Sampling of each category of schools was as shown in Table 4.2.
Table 4.2 Pupils participants by school category

<table>
<thead>
<tr>
<th>School category</th>
<th>Number of schools</th>
<th>Number of pupils sampled</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day school</td>
<td>11</td>
<td>132</td>
<td>84</td>
</tr>
<tr>
<td>Boarding school</td>
<td>1</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Special school</td>
<td>1</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Total (N)</td>
<td>13</td>
<td>156</td>
<td>100</td>
</tr>
</tbody>
</table>

4.2.2 Participants by gender and class

In this study, the number of participants was selected on a fifty-fifty basis so as to ensure fair coverage. Standard 7 and 8 pupils were selected purposefully as they could respond more effectively and more so they were at the education levels noted to be experiencing high levels of wastage.

4.2.3 Pupils’ age

The study shows majority (90 %) of the sampled pupils were above 14 years. This implies that they were above the official primary school age (6-13 years) which is an indication of inequity and inefficiency in the education system. The age bracket of 14-16 years had 60 % while the bracket of 17-19 years had 29 %. The age bracket 11-13 had 9 % while 1% represented those above 20 and below 10 years of age. This demographic information is as presented in Figure 4.1.
4.2.4 Teacher respondents

A total of twenty six teachers participated in this study. They were drawn from thirteen schools in the county at the time of study (see Appendix C). Of the sampled teachers, 84% were from the public day primary schools while special schools and boarding schools category shared 8% each as shown in Figure 4.2. The 26 teacher respondents were head teachers and senior teachers on a fifty-fifty basis. Therefore, each of the sampled school had two participants.
4.3 Forms of Wastage in public primary schools in Embu County.

The study revealed that wastage in schools is depicted through equity and efficiency indicators namely class repetition rates and dropout rates. The research done in the sampled schools indicated that wastage was prevalent in the public primary schools as the above mentioned indicators were observed though at varying rates. This is because the expected benefits of increased enrolments are being undermined by significant levels of drop-out, an acute symptom of school wastage. Similarly, UNESCO (1998) considers repetition and drop out as forms of wastage. According to UNESCO (1998) school wastage refers to pupils who do not complete their schooling in the prescribed number of years either because they drop out of school entirely or because they repeat one or more grades. It is this concept of wastage
County as revealed by the sampled schools. UNESCO (1998) concurs with this as it explains that in developing countries especially, repetition is often a prelude to drop out. Figure 4.3 illustrates the situation of repeaters and dropouts on average from 2009-2011.

4.3.1 Primary class repetition rates

The study found that though 60 per cent and 80 percent of parents and educators respectively tried to portray repetition in a constructive light, pupils who did not progress to the next grade level with their peers had problems of self-esteem. The researcher found that repeaters tend to develop highly negative attitudes toward school. Repeating early grades had a more negative impact and frequently led to dropping out entirely. The study established that single grade retention increase the likelihood of drop-out by 20 to 30 per cent. A second one raises the risk to 60 per cent.

Interview among the education officers indicated that repetition was only effective when repeaters are provided with remedial programmes and are not taken again through the same programme as the other students. Unfortunately in public primary schools such programmes are not available, neither are teachers trained to address the special problems of repeaters. In such cases repetition could be psychologically destructive for children. The education officers asserted that good remedial measures at school level were a better choice than repeating. Meanwhile, the school
management committee interviewees expressed that repetition was more likely to result in worse performance and finally in dropping out.

According to the study, the total repetition rate increased from 13.1 percent in 2009 to 13.8 percent in 2010 as shown in Table 4.3. The analysis show that there were more boys repeating than girls at 14.5 and 11.7 in 2009, 15.3 and 12.2 in 2010 and 12.9 and 11.0 in 2011.

Table 4.3 Primary class repetition rates by gender and class, 2009-2011

<table>
<thead>
<tr>
<th>Class</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys</td>
<td>Girls</td>
<td>Total</td>
</tr>
<tr>
<td>Std.1</td>
<td>7.4</td>
<td>5.6</td>
<td>6.5</td>
</tr>
<tr>
<td>Std.2</td>
<td>22.5</td>
<td>16.9</td>
<td>19.7</td>
</tr>
<tr>
<td>Std.3</td>
<td>20.7</td>
<td>15.7</td>
<td>18.2</td>
</tr>
<tr>
<td>Std.4</td>
<td>9.8</td>
<td>7.4</td>
<td>8.6</td>
</tr>
<tr>
<td>Std.5</td>
<td>11.1</td>
<td>14.7</td>
<td>12.9</td>
</tr>
<tr>
<td>Std.6</td>
<td>8.5</td>
<td>6.5</td>
<td>7.5</td>
</tr>
<tr>
<td>Std.7</td>
<td>25.6</td>
<td>19.4</td>
<td>22.5</td>
</tr>
<tr>
<td>Std.8</td>
<td>10.0</td>
<td>7.6</td>
<td>8.8</td>
</tr>
<tr>
<td>Total</td>
<td>14.5</td>
<td>11.7</td>
<td>13.1</td>
</tr>
</tbody>
</table>

The research findings show that repetition in exam and pre-exam grades was due in large part to the demand from students and their families, wishing to increase their
chances of success. Repetition may be secretly arranged by parents and teachers despite regulations, or decided by the students themselves, changing schools or even names if necessary. Failure to attain certain grades in class was found to be the major basis of pupils' repetition. Most repeaters were coerced mainly by teachers to make one or more attempts in order to score marks which would satisfy the teachers. According to Psacharopoulos (1996), grade repetition, was closely associated with child labor. Thus, beyond the issue of child labor having an adverse effect on the child's physical development, the fact that a child was obliged to work had detrimental effect on the accumulation of human capital and of course on the subsequent private and social returns from it. Nevertheless, the study revealed other causes of class repetition as shown in Figure 4.4.

Figure 4.4 Causes of class repetition
4.3.2 Primary school dropout rates

The total dropout has been on the decline, that is, from 4.4 per cent in 2009 to 4.1 per cent in 2010 and 3.6 in 2011. According to Table 4.4, the highest dropout rate was recorded in Standard 7 at 7.7 per cent followed by Standards 2 and 3 at 5.9 and 5.2 per cent respectively. Standard 1 recorded the least dropout rate of 2.0 per cent, 1.0 per cent and 1.1 percent respectively. According to Cameron (2005), age-specific dropout rates for older children increase drastically after the age of 10. During the final year of primary school, children who are over age by two or more years have the highest dropout rates. Research findings indicate that the older the child is, the greater the chances of not completing the basic cycle of primary school. This is due to the fact that for older children the opportunity cost of schooling increases significantly and with this a pressure to work or to get married (UNESCO, 2005).

Further analysis shows that the total dropout rate for boys was higher than girls in 2009, 2010 and 2011. With few exceptions, boys tend to be enrolled in school at significantly higher rates than girls in all developing regions and they then complete the primary-school cycle in larger numbers. However, a closer look at the data shows that once girls are admitted to school, their drop-out rate is no higher than that for boys. This suggests that strategies to remove the gender gap should concentrate on getting more girls into school in the first place. Study showed that boys especially in standard 6, 7 and 8 developed deviance to teachers as well as parents to some extent when they were coerced to repeat a class. This eventually led to dropping out for failure to cope with the school environment. The research study showed that boys
than girls were involved in child labour especially when they attained the age of over 18 years while in school. According to the study, poverty was generally seen as the most compelling reason for children to work. This had adverse effects on wastage as child labour was a major obstacle both to providing universal access to schooling and to reducing school wastage (UNESCO 1998).

According to Psacharopoulos (1996), more boys than girls were involved in child labour. The issue of child labor was important on at least two counts: In the first place, it was the immediate, short-term human aspect of a very young person having to do manual work beyond his/her physical capability or wishes. Second, it was the longer term aspect that, by virtue of being a laborer today, young person is disinvesting in human capital formation that might hurt him/her in the future. The fact that a child was working reduces his or her educational attainment by about 2 years of schooling relative to the control group of non-working children.
### Table 4.4 Primary school dropout rates by gender and class, 2009-2011

<table>
<thead>
<tr>
<th>Class</th>
<th>2009</th>
<th></th>
<th></th>
<th></th>
<th>2010</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>2011</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys</td>
<td>Girls</td>
<td>Total</td>
<td>Boys</td>
<td>Girls</td>
<td>Total</td>
<td>Boys</td>
<td>Girls</td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Std.1</td>
<td>2.4</td>
<td>2.0</td>
<td>2.2</td>
<td>1.1</td>
<td>0.9</td>
<td>1.0</td>
<td>1.2</td>
<td>1.0</td>
<td>1.1</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Std.2</td>
<td>7.3</td>
<td>5.9</td>
<td>6.6</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>2.1</td>
<td>1.7</td>
<td>1.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Std.3</td>
<td>6.7</td>
<td>5.5</td>
<td>6.1</td>
<td>8.3</td>
<td>6.8</td>
<td>7.5</td>
<td>4.5</td>
<td>3.7</td>
<td>4.1</td>
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</tr>
<tr>
<td>Std.4</td>
<td>3.2</td>
<td>2.6</td>
<td>2.9</td>
<td>7.2</td>
<td>5.9</td>
<td>6.5</td>
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<td>6.1</td>
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</tr>
<tr>
<td>Std.5</td>
<td>4.7</td>
<td>3.9</td>
<td>4.3</td>
<td>4.0</td>
<td>3.8</td>
<td>3.9</td>
<td>4.3</td>
<td>3.5</td>
<td>3.9</td>
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<tr>
<td>Std.6</td>
<td>2.7</td>
<td>2.3</td>
<td>2.5</td>
<td>2.2</td>
<td>1.8</td>
<td>2.0</td>
<td>3.5</td>
<td>2.9</td>
<td>3.2</td>
<td></td>
<td></td>
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<tr>
<td>Std.7</td>
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<td>6.8</td>
<td>7.5</td>
<td>9.2</td>
<td>7.6</td>
<td>8.4</td>
<td>6.1</td>
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<td>2.8</td>
<td>1.9</td>
<td>1.5</td>
<td>1.7</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4.8</td>
<td>3.9</td>
<td>4.4</td>
<td>4.4</td>
<td>3.9</td>
<td>4.1</td>
<td>3.8</td>
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<td></td>
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</tr>
</tbody>
</table>

#### 4.4 The Extent and Magnitude of Wastage in Public Primary Schools in Embu County

The introduction of Free Primary Education in 2003 in Kenya was mainly geared towards improving access, quality and equity at the primary level of education. In view of the prevailing wastage particularly in public primary schools, the goal of attaining Education for All (EFA) by 2015, as passed by the Dakar, Senegal 2000 convention of the World Education Forum will be a mirage. The free primary education was mainly meant to cushion the poor and vulnerable against the vagaries of falling economic indicators. However, it appears not to have made any overwhelming impact on curbing wastage in public primary schools. Figure 4.5
indicates the prevailing repetition rates by gender (2009-2011) as reported by education officers and head teachers in the sampled schools in Embu County.

Figure 4.5 Repetition Rates by Gender, 2009-2011

As illustrated in Figure 4.6, Standard 7 had the highest repetition rate in 2009, 2010 and 2011 at 22.5 per cent, 28.1 and 22.5 respectively. The least repetition rate was reported in Standard 1 at 6.5 per cent, 3.2 per cent and 3.8 per cent in 2009, 2010 and 2011 respectively.
Figure 4.6 Repetition rates by class, 2009-2011

There occurs a sharp difference between enrolment of pupils of the same cohort especially at the Standard 7 and 8 levels education. Pupils’ retention and ability to proceed with their education beyond Standard 7 have deteriorated while boys’ participation is marked by higher repetition rates as shown in Figure 4.5.

FPE is also characterized by overcrowded classrooms and overstretched facilities. This may not be conducive to the retention of pupils in school, especially those from ASAL, and the urban and rural poor. Lack of sufficient or appropriate infrastructural facilities and equipment makes it difficult to mainstream in public primary schools. The prevailing shortage of teachers has led to the deployment of teachers who lack pedagogical knowledge and skills. This state of affairs de-motivates the learner due to poor curriculum implementation. Subsequently, inequity and inefficiency occurs.
as indicated by irregular attendance, poor performance, class repetition and school dropout.

Education Wastage was considered as a waste of human resources in terms of teachers, students' time and state resources. This observation was critical given that the government of Kenya commits a lot of resources by investing in basic education with an aim of reaping economic, social and political benefits.

4.5 The Impact of Wastage as measured by completion rates in public primary schools in Embu County

The responses given by the teachers indicated that primary school completion, repetition and dropout rates had some relationship in that repetition led to dropout in a great deal while drop out and repetition levels directly affect the completion rates. Repeaters were potential dropouts meaning that the higher the repetition the higher the dropout and subsequently completion rate was affected negatively. This study established the rate of non-completion emanating from the wastage occurring in the education system as shown in Table 4.5
Table 4.5 Primary School Non-Completion Rates (%), 2007-2011

<table>
<thead>
<tr>
<th>Year</th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>15.8</td>
<td>22.9</td>
<td>19.3</td>
</tr>
<tr>
<td>2008</td>
<td>16.5</td>
<td>24.1</td>
<td>20.3</td>
</tr>
<tr>
<td>2009</td>
<td>13.1</td>
<td>19.6</td>
<td>16.3</td>
</tr>
<tr>
<td>2010</td>
<td>12.0</td>
<td>17.4</td>
<td>14.7</td>
</tr>
<tr>
<td>2011</td>
<td>7.9</td>
<td>12.6</td>
<td>10.2</td>
</tr>
<tr>
<td>Total</td>
<td>13.1</td>
<td>19.3</td>
<td>16.2</td>
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</tbody>
</table>

From 2007 to 2008 there was a marginal increase in non-school completion rate from 19.3 percent to 20.3 percent probably due to the political upheavals prevailing in the country during the time of post election. This is a clear indication that the political, social and economic circumstances prevailing in the society have implications on the learning outcomes. Causes of wastage such as insecurity and inadequate teaching and learning materials led to this state of affairs. This evidence suggests that equity and efficiency in education can only be achieved in a conducive learning atmosphere.

Nevertheless, there was a turn of events as a decrease in the non-completion rates was recorded significantly from 20.3 percent in 2008 to 16.3 percent in 2009, 14.7 percent in 2010 to 10.2 in 2011. This was an indication of appropriate measures taken to curb wastage in primary schools in the period 2008 -2011. However, despite
this positive development, it is evident that FPE has not led to the achievement of maximum primary school completion as illustrated in Figure 4.7.

![Graph showing primary school non-completion rates (2007-2011)](image)

**Figure 4.7 Primary school Non-completion rates (%), 2007-2011**

Moreover, research findings from the sampled schools indicated that there were significant gender disparities in the primary school non-completion rates all through from 2007 to 2011. Thus, girls’ retention and ability to proceed with their education continues to be hampered by the prevailing situations. According to the interviewees, the factors that put girls’ non-completion rate higher than that of the boys’ were:

- Early marriage
- Pregnancy
Figure 4.8 Primary School Non-Completion Rates by gender (%), 2007-2011

The respondents indicated that both boys and girls were affected by other factors though in different magnitude. These factors include:

- Poverty
- Illness
- Indiscipline

The study indicated that illness amongst pupils was a major cause of absenteeism in school. Chronic absenteeism led to poor performance as the affected pupils did not cover syllabus adequately. The illness also had a negative impact on the child’s self-esteem which made the child to perform poorly. This attracted a need for repetition
of grade and subsequently preparing for dropping out of school. According to the study, non-completion was an impact of wastage as a result of the factors indicated in Figure 4.9. Poverty also led to the inadequacy of basic needs. Girls for example were reported to be recording absenteeism due to lack of appropriate sanitary pads. Teachers also indicated that pupils from poor backgrounds could drop out due to domestic chores in spite of the Free Primary Education. Some of the domestic chores interfering with learning were indicated as follows:

- Looking after siblings as parents do other family duties.
- Looking after family property such as livestock.
- Fetching water at long distances.
- Involvement in trading activities.
- Cultivation.

Similarly, UNESCO (1998) shows that drop-out rates are highly sensitive to the national economic context. Studies in certain less developed countries, for example, have shown a significant and positive correlation between drop-out rates and the percentage of people living below the poverty line, i.e. on less than $1 a day. The studies further indicate that school wastage correlates also with several educational, social and demographic variables. For instance, as access to health services increases, so does the survival rates. There is an expectation that children do better in school when they are healthy.
4.6 Appropriate strategies to mitigate wastage in public primary schools in Embu County.

The study depicts that children are far more likely to be motivated to learn and to persist in school if the curricula and teaching methods are of high quality. There is much that can and must be done to improve the quality of instruction through a concerted strategy to improve the curricula, the training of teachers and the reorganization of the school to promote learning. The study has also established that skilled teaching has a strong positive impact on pupil achievement.

Interviews amongst the education officers indicated that the following strategies were appropriate for curbing wastage in public primary schools:
• Making investments that improve teacher quality

• Increasing student exposure to teachers.

• Both pre-service and in-service teacher training should aim to equip teachers with a variety of practical strategies for helping pupils learn in a timely fashion.

• Teachers need to master pupil-centered approaches that recognize that each pupil has specific learning needs and requires a particular set of interventions.

In the school management committees’ in-depth interview, the following strategies were established:

• Increasing teachers’ responsibility on pupils, failures.

• Improving children’s family background by empowering the family economically.

• Enhancing the skills and working conditions of classroom teachers.

• Capacity building teachers in order for them to master pupil-centered approaches that recognize that each pupil has specific learning needs and requires a particular set of interventions.

The response of teachers and the education officers was that the following considerations could mitigate wastage in public primary schools:
• The selection, competence and behaviour of teachers responsible for the entry
grade (Std.1) should be a priority in efforts to combat wastage.

• School administrators to assign the best teachers to work with the beginning
pupils (lower primary).

• The concept of ‘special needs’ should be well understood by the practicing
teachers especially in public primary schools where there is the bulk of
children.

• Inclusive education should be adopted as expected. Thus, teachers need to be
prepared for this shift in approach through pre-service and in-service training.

• Certain prevalent attitudes towards disabilities also need to be reassessed so
that schools can meet the learning needs of all the children in a community
together.

The study depicted that the school feeding programme particularly in the ASAL and
marginalized areas such as the Gachoka and Siakago constituencies of Embu
County, resulted in increased enrolments and less absenteeism and drop-out, as well
as improvements in retention and examination pass rates. Report from the interviews
revealed that in the occurrence of drought / famine, 25 % of the pupils dropped out
of school when a school feeding programme was interrupted. In poor households,
where the direct and indirect costs and poor quality of education lead parents to keep
their children out of school, the distribution of school meals was a strong incentive
for children to enroll and attend regularly. It was established that absenteeism often led to drop-out. Therefore, encouraging regular attendance through sustenance of school feeding programme was an appropriate measure to prevent drop-out. It was noted that pupils who were attending school throughout the year were also more likely to succeed in examinations hence increasing the completion rate. Taking such measure is of paramount importance as the primary goal of the study was to analyze the situation of wastage in public primary schools in Embu County, Kenya in order to identify appropriate strategies to mitigate the prevailing wastage.

As a measure to mitigate wastage, UNESCO (1998) suggests that even when public schools are ostensibly free, parents must bear various direct costs to educate their children. Often, they must purchase school supplies and textbooks. On the other hand, public policy-makers should reduce the direct costs that families must bear to enroll their children in school through means such as subsidizing textbooks providing essential school supplies and waiving school fees for pupils from very poor families. In addition, there should be some effort to improve the quality of instruction through a concerted strategy to improve the curricula, the training of teachers and the reorganization of the school to promote learning. This is because numerous studies have established that skilled teaching has a strong positive impact on pupil achievement. Hence, any systematic effort to reduce school wastage should include measures to enhance the skills and working conditions of classroom teachers.
4.7 Discussion

Considerable progress has been made in Kenya since the implementation of free primary education in 2003 in expanding the capacity of primary school systems in all public primary schools. However, the data analyses in this chapter indicate the prevalence of wastage in public primary schools. Despite the introduction of FPE and other interventions, gender disparities are observed in retention transition and achievement with a serious impact being experienced in ASAL regions and / or low potential areas. If these trends were to continue, individuals and the society at large would incur unnecessary cost in maintaining pupils who are not of the appropriate age in school. This would deny the deserving pupils their right to quality education hence compromising the efforts of achieving universal primary education.

The findings from educators, school managers and pupils have indicated concurrence with the views of UNESCO (2010) that with the effects of the global economic crisis still being felt, there is a real danger that much of the progress of the past ten years will stall or be reversed. Education is at risk, and policy makers must develop more inclusive approaches, linked to wider strategies for protecting vulnerable populations and overcoming inequality. Enrolment is just one measure of overall progress towards universal primary education. While enrolment rates are rising, many children enter primary school only to drop out before completing a full primary cycle. Many of the measures needed to overcome marginalization in education should operate at the interface between education policy and wider strategies for change.
CHAPTER FIVE

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the research findings on the situational analysis of wastage in public primary schools in Embu County in order to highlight and provide solutions to the problem. The implications of the findings are also explained alongside the study conclusion and recommendations. Additional research areas are suggested as well as future projection based on the study. The study has provided some insight into the situation at hand in as far as wastage in public primary schools in Embu County is concerned. The forms of wastage have been shown and the extent at which they are prevailing in Embu County. The study identified that wastage has a negative impact on the primary school completion rates. Meanwhile, the study sought to identify appropriate strategies to mitigate wastage in public primary schools.

5.2 Summary

Results deduced from the data collected and analyzed indicated that wastage in form of class repetition and school dropout was still prevalent in public primary schools in spite of the implementation of the FPE policy by the government of Kenya in 2003. This is because of the conditions that de-motivate the learner particularly within the school environment. These unfavorable conditions include inadequate basic needs, insecurity, unconducive learning environment and poor curriculum implementation. Analysis showed that repetition was of higher magnitude than dropout with 76
percent and 24 percent respectively. The study shows that repeating students are more likely to leave school before completing primary school than students with similar ability who are not held back, pointing to the need for alternative measures to improve the skills of lagging children.

Results showed that among the many causes of wastage, the major one was poverty. As such, measures should be put in place so as to address the poverty and its root causes as it has a domino effect on learning outcomes. Respondents expressed that issues such as FPE funding constraints, inadequate curriculum monitoring mechanisms and systemic flaws that mitigate against smooth implementation of the FPE program, require urgent attention.

Wastage amongst girls was lower than that of the boys. However, girls were more vulnerable to conditions that are unfavorable for learning hence likely to be affected by poor learning conditions. As such, unfavorable socio-economic factors put girls’ non-completion rate higher than that of the boys. Thus, girls are in dire need of equitable attention.

Meeting basic needs in among learners is a key motivator. In a learning situation, it is of paramount importance to consider meeting pupils’ basic needs as a priority. For example, sustenance of the school feeding programme was an appropriate measure to prevent drop-out as it enhances retention and subsequently fosters success in examinations hence increasing the pupils’ completion rate. Availability of adequate
teaching and learning materials and enhancement of security was also found as a key motivator.

The idea of many teachers trying to use the threat of repetition to keep their students in line is not effective. Instead, a considerable number of repeaters end up failing to complete school especially after dropping out of school.

5.3 Implications of the findings

The findings of the research study have various implications:

- Educators and policy makers have an opportunity to devise appropriate solutions, which may need to target particular classes, geographical areas, communities, and disadvantaged groups.

- Stakeholders will work hand in hand to implement education policies so as to achieve maximum benefits of education.

- More study will be carried out with a view to find out more causes of wastage.

- The findings will provoke other scholars to study more about wastage in schools with a view to continue to alleviate the menace.

5.4 Conclusion

The research study indicates that class repetition was the most rampant form of wastage. It was also found that class repeaters were potential school dropouts. The
findings show that repetition in exam and pre-exam grades prevailed most with significant difference between enrolment of pupils of the same cohort especially at the Standard 7 and 8 levels education. This form of wastage was due in large part to the demand from students and their families, wishing to increase their chances of success. In addition, the study showed that most repeaters were coerced mainly by teachers to make one or more attempts in order to score marks which would satisfy the teachers.

As repeaters use resources that could otherwise be used to expand enrolment or to improve the quality of educational services, schools with high levels of repetition should review their promotion policies with a view to adopting more efficient measures to improve learning achievement and prevent failure. Whereas drop-out rates are often affected by social and economic forces beyond the control of educators, decisions on whether or not to promote pupils to the next grade are generally made by teachers. Repetition rates are thus a matter of educational policy and practice.

Addressing wastage requires educational stakeholders to work with members of local community as well as with political and other leaders. It is thus incumbent upon teachers and school administrators to make their fellow citizens aware of the cost to families and to society when children are excluded from school or fail in school.
5.5 Recommendations

On basis of the results of the research findings discussed above, the following recommendations were made:

i. In the quest of 'Education for All', more attention has been given to the harmful effects of dropout than to those of repetition. Having observed that repetition is almost as bad and that it often leads to dropout, educational policy makers should pay more attention to repetition.

ii. The study has found out that the haphazard ways in which pupils are evaluated and promoted was one of the causes of high repetition rates as failure to score as expected was regarded as poor performance. Thus, the researcher recommends an establishment of structured procedures to set performance standards for pupils’ assessment. These procedures avoid the establishment of common examinations particularly where ranking of pupils and / or schools is the criterion for measuring one’s performance. Evaluation of pupils’ achievement should be continuous, with the aim of detecting and compensating learning difficulties rather than selecting pupils for promotion.

iii. The society should invest more in primary level of education through enhancing access and quality of education.

iv. The Ministry of Education should ensure that primary education curriculum development, implementation, supervision and assessment address gender
issues. The curriculum should be made modest, simple and interesting so that it can be implemented most efficiently. Adequate teachers should be appointed to create better quality in the instructional programme in order to attract children.

v. The researcher recommends increased access to secondary education. This would result in lower repetition rates since pupils repeat mainly to have another chance to pass. Increased access to secondary (and higher) education might thus be an important component of a repetition reducing policy.

5.5.1 Suggestions for further research

It is hoped that further research will confirm the position of the researcher. The findings from this study can be proved to be correct or incorrect through critique and further research. Nevertheless, further research in the following areas is recommended.

i. Challenges facing pupils during their transition from lower primary (Std. 1-3) to upper primary (Std. 4-8).

ii. Transition of pupils from pre-primary to primary school.

iii. Maintaining gender parity in public primary schools.
REFERENCES


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Dear officer,

My name is Nebat Njeru. I am a Masters student at Kenyatta University Department of Educational Management, Policy and Curriculum studies. I am carrying out a research on A Situational Analysis of Wastage in Public Primary Schools in Embu County, Kenya. Your assistance in filling the questionnaire will assist me to collect the necessary information. Confidentiality will be guaranteed.

Instructions

This is a questionnaire to analyze the situation of wastage in public primary schools. You are requested to fill the questionnaire honestly and accurately. The information you give will assist policy makers and the relevant stakeholders to avert the situation and also form a basis on which others can develop their studies. This is not an examination so there is no right or wrong answer. Just tick [✓] or suggest the answer you think appropriate. Where there are many options you may tick [✓] more than one answer. The information you give will be kept confidential and be used for the purpose of this research only.
1. Give the enrolment of the public primary schools in the district for the last 5 years:

<table>
<thead>
<tr>
<th>YEAR</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
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<td>ENROLMENT</td>
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2. Give the number of KCPE candidates in public primary schools for the last 5 years:

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<th>YEAR</th>
<th>2007</th>
<th>2008</th>
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<td>CANDIDATES</td>
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3. How many registered candidates drop out before sitting for KCPE?

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4. Give the class drop outs in the district/division

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<th>CLASS</th>
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</table>
5. Give the class repeaters in the district/division

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<th>CLASS</th>
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6. What is the main cause of drop out in the district?

<table>
<thead>
<tr>
<th>Tick one:</th>
<th>male</th>
<th>female</th>
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<tbody>
<tr>
<td>a) Poverty</td>
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<td>b) Illness</td>
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<td>c) Pregnancy</td>
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<td>d) Early marriage</td>
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<tr>
<td>e) Indiscipline</td>
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</table>

7. What is the main cause of repetition in the district?

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<thead>
<tr>
<th>Tick one:</th>
<th>male</th>
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<tbody>
<tr>
<td>a) Parent’s coercion</td>
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<td>b) Teachers’ coercion</td>
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<td>c) Pupil’s will</td>
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<td>d) Child’s poor academic performance</td>
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<td>e) Re-entry</td>
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8. Rate the following measures of alleviating educational wastage in terms of efficiency and effectiveness, from 1-V:

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<td>a) Free primary education</td>
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<td>b) Law enforcement by the government</td>
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<td>c) Teachers’ sensitization</td>
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<tr>
<td>d) School management committees’ capacity building</td>
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<tr>
<td>e) Community’s socio-economic empowerment</td>
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THANK YOU FOR TAKING TIME TO FILL IN THIS QUESTIONNAIRE
APPENDIX A (II)

QUESTIONNAIRE FOR HEAD TEACHERS

Dear head teacher,

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1. Give the enrolment of your school for the last 5 years:

<table>
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<tr>
<th>YEAR</th>
<th>2007</th>
<th>2008</th>
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2. Give the number of KCPE candidates in your school for the last 5 years:

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<th>2009</th>
<th>2010</th>
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<td>CANDIDATES</td>
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3. How many registered candidates drop out before sitting for KCPE?

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<tr>
<th>YEAR</th>
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<th>2009</th>
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<td>DROPOUTS</td>
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<td>TOTAL</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
4. Give the class drop outs in your school:

<table>
<thead>
<tr>
<th>CLASS</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>1</td>
<td></td>
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<td>2</td>
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<td>6</td>
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<td>7</td>
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<td>8</td>
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<tr>
<td>TOTAL</td>
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<tr>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. Give the class repeaters in your school:

<table>
<thead>
<tr>
<th>CLASS</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
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<tr>
<td>1</td>
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<td>4</td>
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<td>5</td>
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<td>8</td>
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<tr>
<td>TOTAL</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. What is the main cause of drop out in your school?

Tick one: 

- male
- female
7. What is the main cause of repetition in your school?

Tick one:  

<table>
<thead>
<tr>
<th>Cause</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Parent’s coercion</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>b) Teachers’ coercion</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>c) Pupil’s will</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>d) Child’s poor academic performance</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>e) Re-entry</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

8. Rate the following measures of alleviating educational wastage in terms of efficiency and effectiveness, from I-V:

<table>
<thead>
<tr>
<th>Measure</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Free primary education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Law enforcement by the government</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Teachers’ sensitization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) School management committees’ capacity building</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Community’s socio-economic empowerment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

THANK YOU FOR TAKING TIME TO FILL IN THIS QUESTIONNAIRE
Dear Teacher,

My name is Nebat Njeru. I am a Masters student at Kenyatta University Department of Educational Management, Policy and Curriculum studies. I am carrying out a research on A Situational Analysis of Wastage in Public Primary Schools in Embu County, Kenya. Your assistance in filling the questionnaire will assist me to collect the necessary information. Confidentiality will be guaranteed.

Instructions

This is a questionnaire to analyze the situation of wastage in public primary schools. You are requested to fill the questionnaire honestly and accurately. The findings of this research will assist policy makers and the relevant stakeholders to avert the situation and also form a basis on which others can develop their studies. Being a professional teacher you are best suited in the study by filling the questionnaire. This is not an examination so there is no right or wrong answer. Just tick [✓] or suggest the answer you think appropriate. Where there are many options you may tick [✓] more than one answer. The information you give will be accepted unanimously and treated with strict confidence by the researcher. It will be used for the purpose of this research only.
1. Your current class.

2. Your current class enrollment: M .......... F .......... TOTAL ..........

3. How many repeaters are there in your class?

Tick one:          M     F

   a) Above 10       [ ]   [ ]
   b) 6-10           [ ]   [ ]
   c) 1-5            [ ]   [ ]
   d) NIL            [ ]   [ ]

4. How many repeaters are there in the following age groups?

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above 20 years</td>
<td>......</td>
<td>........</td>
</tr>
<tr>
<td>17-19 years</td>
<td>......</td>
<td>........</td>
</tr>
<tr>
<td>14-16 years</td>
<td>......</td>
<td>........</td>
</tr>
<tr>
<td>11-13 years</td>
<td>......</td>
<td>........</td>
</tr>
<tr>
<td>8-10 years</td>
<td>......</td>
<td>........</td>
</tr>
<tr>
<td>Below 7 years</td>
<td>......</td>
<td>........</td>
</tr>
</tbody>
</table>

5. Give the number of repeaters in each of the following categories:

Tick one:          male | female

   a) 1st time repeater  [ ] [ ]
   b) 2nd time repeater  [ ] [ ]
   c) 3rd time repeater  [ ] [ ]
   d) Above 3 times repeater [ ] [ ]

6. What is the major cause of repetition in your class?

Tick one:          male | female

   a) Parent's coercion [ ] [ ]
   b) Teachers' coercion [ ] [ ]
   c) Pupil's will      [ ] [ ]
d) Child's poor academic performance [ ] [ ]
e) Re-entry [ ] [ ]

7. What measures do you take to address repetition of pupils?

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

8. How many drop outs are there in your class?

Tick one:                   M          F
a) Above 10 [ ] [ ]       
b) 6-10 [ ] [ ]          
c) 1-5 [ ] [ ]          
d) NIL [ ] [ ]

9. How many drop outs have been repeaters?

Tick one:                   M          F
b) Above 10 [ ] [ ]       
b) 6-10 [ ] [ ]          
c) 1-5 [ ] [ ]          
d) NIL [ ] [ ]

10. What is the influence of guidance and counseling on alleviating class drop out?

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

THANK YOU FOR TAKING TIME TO FILL IN THIS QUESTIONNAIRE
APPENDIX A (IV)

QUESTIONNAIRE FOR PUPILS

Dear pupil,

My name is Nebat Njeru. I am a Masters student at Kenyatta University Department of Educational Management, Policy and Curriculum studies. I am carrying out a research on A Situational Analysis of Wastage in Public Primary Schools in Embu County, Kenya. Your assistance in filling the questionnaire will assist me to collect the necessary information. Confidentiality will be guaranteed.

Instructions

This is a questionnaire to analyze the situation of wastage in public primary schools. You are requested to fill the questionnaire honestly and accurately. The information you give will assist policy makers and the relevant stakeholders to avert the situation and also form a basis on which others can develop their studies. This is not an examination so there is no right or wrong answer. Just tick [✓] or suggest the answer you think appropriate. Where there are many options you may tick [✓] more than one answer. The information you give will be kept confidential and be used for the purpose of this research only.

1. What is your sex? Male [ ] Female [ ]

2. What is your age bracket? Tick one:

Above 20 years [ ]
17-19 years  [ ]
14-16 years  [ ]
11-13 years  [ ]
Below 10 years [ ]

3. Your current class/grade.................................................................

4. Enter the class/grade and the year that you have ever repeated in the table below:

<table>
<thead>
<tr>
<th>Class/Grade</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<tr>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

5. About how many days are you absent from school in a term?
   
   *Tick one:*

   Above 5 days  [ ]
   3-4 days      [ ]
   1-2 days      [ ]
   NIL          [ ]

6. If you have been absent for at least a day, choose one major cause for absenteeism:
7. How is your current academic performance?

Scores out of 500 marks

- Above 375
- 300-374
- 250-299
- 200-249
- Below 199

Tick one

8. What is the major cause of school dropout in your school?

Tick one:  
- Poverty
- Illness
- Pregnancy
- Early marriage
- Indiscipline

Tick one: male female

9. State the nature of your parent/guardian’s employment:

Tick one

- Permanent
- Temporary
- Casual
- Not employed
10. What is the education level of your parent(s)/guardians(s)?

a) Degree [ ]
b) Diploma [ ]
c) KCSE [ ]
d) KCPE [ ]
e) Without KCPE [ ]

11. (i). For how long do pupils stay away from school when they are sent home by teachers/school administration?

*Tick one*

\begin{align*}
\text{males} & \quad \text{females} \\
\text{Above 5 days} & \quad [ ] & [ ] \\
\text{1-4 days} & \quad [ ] & [ ] \\
\text{Less than a day} & \quad [ ] & [ ] \\
\end{align*}

(ii). What are the main reasons of pupils being sent home?

*Tick one:*

a) Financial shortcomings [ ]
b) Indiscipline [ ]

c) Other reasons (specify) .................................................

THANK YOU FOR TAKING TIME TO FILL IN THIS QUESTIONNAIRE
APPENDIX A (V)
QUESTIONNAIRE FOR THE SCHOOL MANAGEMENT COMMITTEE

Dear sir / madam,

My name is Nebat Njeru. I am a Masters student at Kenyatta University Department of Educational Management, Policy and Curriculum studies. I am carrying out a research concerned with the Situational Analysis of Wastage in Public Primary Schools in Embu County, Kenya. Your assistance in filling the questionnaire will assist me to collect the necessary information. Confidentiality will be guaranteed.

Instructions

This is a questionnaire to analyze the situation of wastage in public primary schools. You are requested to fill the questionnaire honestly and accurately. The information you give will assist policy makers and the relevant stakeholders to avert the situation. Just tick [✓] or suggest the answer you think appropriate. Where there are many options you may tick [✓] more than one answer. The information you give will be kept confidential and be used for the purpose of this research only.

1. Whom do you represent in the school management committee?

Tick one:

a) Sponsor [ ]
b) DEB [ ]
c) Parents [ ]
2. How is the school management committee involved in the school strategic planning process?

3. What is the impact of repetition on the school strategic planning process?

4. What is the response of the respective groups that you represent on pupils’ class drop out?

5. How does your school treat cases of re-entry?

6. i) Is repetition of pupils forced or at pupils will in your school?

   ii) Give reason (s) for either of the responses above.
7. When drought /famine occurs how does it affect education in your school?

8. How does the SMC, parents and other stakeholders respond to natural phenomenon such as drought and famine with regard to education in your school?

9. How is the children's Act implemented in your school? 
   
   Tick one:
   
   a) Through law enforcement
   
   b) Through community sensitization
   
   c) Through guidance and counseling

10. How is inclusive education embraced in your school?

11. What is the liaison between the SMC and other development agencies /partners? 
    e.g. CDF, NGOs, etc

THANK YOU FOR TAKING TIME TO FILL IN THIS QUESTIONNAIRE
APPENDIX B (I)

INTERVIEW SCHEDULE FOR EDUCATION OFFICERS

In this section the researcher would like to obtain personal information from the respondents personally and record the responses.

1. How many primary schools are there in your District/Division?
   a) Public ordinary _______________________
   b) Public special _______________________
   c) Private _______________________

2. What is the enrollment of pupils in the primary schools?
   a) Public ordinary  M______ F______ TOTAL_______
   b) Public special  M______ F______ TOTAL_______
   c) Private  M______ F______ TOTAL_______

3. What forms of wastage occur in the district?

   ______________________________________________________

4. How regularly are data on school dropout and class repetition taken?

   ______________________________________________________

5. Which information is captured in the data on school dropout and repetition?

   ______________________________________________________

6. What are the main causes of drop out in the district?
7. What are the views of the following on class repetition?
   a) Pupils ________________________________
   b) Teachers ________________________________
   c) Parents ________________________________
   d) School management committees ________________________________
   e) Education officers ________________________________

8. Are there records of repeaters that are kept in the district? ________________

9. How are the repeaters' records utilized by the education office? ________________

10. Do you submit data on drop outs and repeaters to the ministry of education? ________________

11. How often do you report to the Ministry of Education about dropouts and repeaters? ________________

12. What is the response of the Ministry of Education on dropouts and repeaters? ________________
APPENDIX B (II)

INTERVIEW SCHEDULE FOR THE SCHOOL MANAGEMENT COMMITTEE

1. What is your gender?
   Male [ ]
   Female [ ]

2. What is your position in the SMC? Tick where appropriate
   a) Chairperson [ ]
   b) Treasurer [ ]
   c) Member [ ]

3. What is your suggestion about FPE provision by the government of Kenya?
   _______________________________________
   _______________________________________
   _______________________________________

4. How can poor children be retained in school while overcoming the financial crisis facing schools?
   _______________________________________
   _______________________________________
   _______________________________________

1. Which information does the SMC have regarding
   a. The Children’s Act?
b. The re-entry policy?


2. How do the following stakeholders consider the current situation of wastage in your School?

a) Parents

b) Sponsor

c) Provincial Administration


3. How do you ensure sustainability of the School Feeding Programme in your school?


4. How would you wish affirmative action to be effected with regard to the implementation of FPE?


5. Comment on the significance of inclusive education in public primary schools


6. Give your views on the Government's National Budgetary allocation to the Ministry of Education


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## APPENDIX C

### PUBLIC PRIMARY SCHOOLS THAT PARTICIPATED IN THE RESEARCH

<table>
<thead>
<tr>
<th>School</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iriamurai</td>
<td>Boarding school</td>
</tr>
<tr>
<td>Ngiori</td>
<td>Special school</td>
</tr>
<tr>
<td>Gataka</td>
<td>Day School</td>
</tr>
<tr>
<td>Gwakarigiu</td>
<td>Day School</td>
</tr>
<tr>
<td>Ikomenie</td>
<td>Day School</td>
</tr>
<tr>
<td>Kabuguri</td>
<td>Day School</td>
</tr>
<tr>
<td>Kanyonga</td>
<td>Day School</td>
</tr>
<tr>
<td>Kariguri</td>
<td>Day School</td>
</tr>
<tr>
<td>Karura</td>
<td>Day School</td>
</tr>
<tr>
<td>Kinyaga</td>
<td>Day School</td>
</tr>
<tr>
<td>Kiruriri</td>
<td>Day School</td>
</tr>
<tr>
<td>Mayori</td>
<td>Day School</td>
</tr>
<tr>
<td>Riaciina</td>
<td>Day school</td>
</tr>
</tbody>
</table>
INTERNAL MEMO

FROM: Dean, Graduate School

TO: Mr. Njeru Nebat Mwangangi
     C/o Educ. Management, Policy & Curriculum Studies Department

DATE: 11th March 2012

SUBJECT: APPROVAL OF RESEARCH PROPOSAL

This is to inform you that the Graduate School Board at its meeting of 1st March 2012 approved your M.Ed Project Research Proposal.

You may now proceed with your Data Collection.

Thank you.

JOHN M. ODONGI
FOR: DEAN, GRADUATE SCHOOL


Supervisors:

1. Dr. Mary Otieno

2. Mr. Daniel Wesonga

JMO/fwk
APPENDIX D (II) NCST RESEARCH
AUTHORIZATION

REPUBLIC OF KENYA

NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Telephone: 254-020-2213471, 2241349
254-020-310571, 2213123, 2219420
Fax: 254-020-318245, 318249
When replying please quote
secretary@ncst.go.ke

P.O. Box 30623 00100
NAIROBI KENYA
Website: www.ncst.go.ke

Our Ref: NCST/RCD/14/012/291

Date: 28th March 2012

Nebat Mwangangi Njeru
Kenyatta University
P.O.Box 43844-00100
Nairobi.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “A situational analysis of wastage in public primary schools in Embu County, Kenya,” I am pleased to inform you that you have been authorized to undertake research in Embu County for a period ending 30th June, 2012.

You are advised to report to The District Commissioners and the District Education Officers, Embu County before embarking on the research project.

On completion of the research, you are expected to submit two hard copies and one soft copy in pdf of the research report/thesis to our office.

DR. M. K. RUGUTT, PhD.HSc.
DEPUTY COUNCIL SECRETARY

Copy to:

The District Commissioners
The District Education Officers
Embdu County.

"The National Council for Science and Technology is Committed to the Promotion of Science and Technology for National Development."
THIS IS TO CERTIFY THAT:

Prof./Dr./Mr./Mrs./Miss/Institution

Nebat Mwangangi Njeru

of (Address) Kenyatta University

P.O.Box 43844-00100, Nairobi

has been permitted to conduct research in

Location

Embu

District

Embu

County

on the topic: A situational analysis of wastage in public primary schools in Embu County, Kenya.

for a period ending: 30^th^ June, 2012.

Research Permit No. NCST/RCD/14/012/291

Date of issue 28^th^ March 2012

Fee received KSH. 1,000

Applicant's Signature

Secretary National Council for Science & Technology
OFFICE OF THE PRESIDENT

Telegram: 'Districter' Mbeere South
Telephone: 0208041405
Fax: 0208041405
dembereesouth@gmail.com
When replying please quote

REF: MBRS/EDU/12/1/VOL.1/154

DATE: 25th April, 2012

Nebat Mwangangi Njeru
Kenyatta University
P O Box 43844 – 00100
NAIROBI

REF: RESEARCH AUTHORIZATION

Reference is made to the Deputy Council Secretary’s letter No.NCS1/RCD/14/012/291 dated 28th March 2012 on the above subject.

On completion of the research, you are expected to submit one hard copy and one soft copy of the research report/thesis to our office.

John Kirui
For District Commissioner
MBEERE SOUTH

Copy to:
The District Education Officer
MBEERE SOUTH
TO WHOM IT MAY CONCERN

RE: NEBAT M. NJERU/RESEARCH PERMIT NO. NCST/RCD/14/012/29
RESEARCH AUTHORIZATION

The person referred above has permission to visit any school in this district to carry out research on "A situational analysis of wastage in public primary schools in Mbeere South District, Kenya.

Please accord him the necessary assistance.

JAMES MUNYI
FOR: DISTRICT EDUCATION OFFICER
MBEERE SOUTH
OFFICE OF THE PRESIDENT

Telegram: "Districter", Embu
Telephone: Embu 0202310839
FAX 30040
Email: dcembu@hotmail.com
When replying please quote

Ref: ADM 1/55 VOL II/107

30th April 2012

The District Officer

• Central
• Nembure

RE: RESEARCH AUTHORIZATION

Please be informed that Nebat Mwangangi Njeru of Kenyatta University has been authorized to carry out research in this district for a period ending 30th June 2012.

The research is on "A situation analysis of wastage in public primary schools in Embu County; Kenya."

You are asked to accord him the necessary assistance.

D.M. OBUDO
FOR: DISTRICT COMMISSIONER
EMBU WEST

C.C.:

Nebat Mwangangi Njeru
## APPENDIX E: PROPOSED WORK PLAN / TIME SCHEDULE

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>YEAR</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Feasibility study for the research proposal</td>
<td>2011</td>
<td>March 1st – March 14th</td>
</tr>
<tr>
<td>2. Writing research proposal</td>
<td>2011</td>
<td>March 15th - April 30th</td>
</tr>
<tr>
<td>3. Proof reading of the research proposal</td>
<td>2011</td>
<td>May 1st - 12th</td>
</tr>
<tr>
<td>4. Typing, photocopying and binding of the research proposal</td>
<td>2011</td>
<td>May 13th - 19th</td>
</tr>
<tr>
<td>5. Submission of the research proposal to the University Supervisors for approval</td>
<td>2011</td>
<td>May 20th - Dec 31st</td>
</tr>
<tr>
<td>6. Piloting the research instruments</td>
<td>2011/2012</td>
<td>Jan 1st – Jan 14th</td>
</tr>
<tr>
<td>7. Final construction of research instruments</td>
<td>2012</td>
<td>Jan 15th – 21st</td>
</tr>
<tr>
<td>8. Data collection</td>
<td>2012</td>
<td>Jan 21st – Feb 5th</td>
</tr>
<tr>
<td>a. Booking appointments e.g. with DEO, H/Ts, SMCs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Administering questionnaires</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Interviewing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Data Analysis</td>
<td>2012</td>
<td>Feb 6th – Feb 26th</td>
</tr>
<tr>
<td>10. Drafting Research Report</td>
<td>2012</td>
<td>Feb 27th – March 18th</td>
</tr>
<tr>
<td>11. Writing the Final Research Report</td>
<td>2012</td>
<td>March 19th – March 31st</td>
</tr>
<tr>
<td>12. Typing, photocopying and binding of the Research Report</td>
<td>2012</td>
<td>April 1st - 30th</td>
</tr>
<tr>
<td>13. Submission of the Research report to the University</td>
<td>2012</td>
<td>May</td>
</tr>
</tbody>
</table>
APPENDIX F:
PROPOSED BUDGET

The following are the proposed cost estimates for the Research Proposal and Research Project:

<table>
<thead>
<tr>
<th>Activity / Item</th>
<th>Approximate costs (Kshs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Stationery (writing materials for the research proposal, data collection instruments and the research project):</td>
<td></td>
</tr>
<tr>
<td>-2 ream full scaps @600/-</td>
<td>1,200.00</td>
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<tr>
<td>-2 Diaries @400/-</td>
<td>800.00</td>
</tr>
<tr>
<td>-Others (pens, pencils, etc) @700/-</td>
<td>700.00</td>
</tr>
<tr>
<td>2. Travelling costs</td>
<td>22,000.00</td>
</tr>
<tr>
<td>3. Subsistence allowance</td>
<td>18,000.00</td>
</tr>
<tr>
<td>4. Pilot study</td>
<td>7,000.00</td>
</tr>
<tr>
<td>5. Proposal writing (typing, photocopying and binding):</td>
<td></td>
</tr>
<tr>
<td>i. Typing</td>
<td>7,000.00</td>
</tr>
<tr>
<td>ii. Photocopying</td>
<td>5,000.00</td>
</tr>
<tr>
<td>iii. Binding</td>
<td>2,000.00</td>
</tr>
<tr>
<td>6. Research project writing</td>
<td></td>
</tr>
<tr>
<td>i. Data analysis</td>
<td>8,000.00</td>
</tr>
<tr>
<td>ii. Typing</td>
<td>4,000.00</td>
</tr>
<tr>
<td>iii. Photocopying</td>
<td>3,500.00</td>
</tr>
<tr>
<td>iv. Binding</td>
<td>3,500.00</td>
</tr>
<tr>
<td>7. Miscellaneous</td>
<td>9,000.00</td>
</tr>
<tr>
<td>Total</td>
<td>91,700.00</td>
</tr>
</tbody>
</table>