IMPACT OF WASTAGE ON KCSE PERFORMANCE IN SECONDARY SCHOOLS IN KANDARA SUB COUNTY, MURANG’A COUNTY, KENYA

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DECLARATION

This project report is my original work and has not been submitted for a degree or any other award in any university.

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This project report has been submitted with our approval as university supervisors.

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To my husband Maina and children Victor and Yvonne for the moral support they accorded me during the study.
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ABSTRACT

The main purpose of this study was to identify the impact of wastage on KCSE performance in secondary schools in Kandara Sub County, Murang’a County. Despite the huge inputs into the education system, there’s a general outcry from all education stakeholders over the decline in standards, quality and subsequent inability to secure gainful employment and admission at the end of secondary school. The study endeavored to examine types and causes of wastages in secondary schools, investigated impact on performance and determined strategies to curb wastages in secondary schools in Kandara Sub County, Murang’a County. The research employed a descriptive survey study design. The target population comprised of all the 55 secondary schools in Kandara Sub County. Simple random and purposive sampling techniques were used to determine the sample size. Questionnaires and interview schedules were used to collect data. Research instruments were piloted to test their validity and reliability. Data was obtained and analyzed by use of Statistical Package for Social Sciences (SPSS) computer package to determine impact of wastage on KCSE performance in secondary schools in Kandara Sub County, Murang’a County. Both qualitative and quantitative data analysis was used. Quantitatively the study used numerical data to explore traits and situations. Responses from questionnaire, interview schedules were organized according to pertinent aspects of the study. The findings were presented through descriptive statistics by use of frequencies, tables, graphs and pie-charts. The research findings would help minimize cases of dropout and repetition among students. It would also help teachers curb wastages among learners in Kandara Sub County. Policy makers could use the research findings to formulate policies to curb wastages in the education sector country wide. The study established that wastages did exist in secondary schools in Kandara Sub County in terms of absenteeism, repetition and dropout. These wastages could have been caused by lack of school fees, indiscipline, poor health, parental influence, peer influence and drugs. These wastages contributed to poor KCSE performance, repetition and dropout. The research findings also established measures to curb these wastages which included; guidance and counseling, peer teaching, creating extra time for syllabus coverage and provision of bursaries to maintain needy students in school. The research findings recommended; provision of bursaries, guidance and counseling and cooperation between parents and teachers through meetings could avert wastages in secondary schools. Further research on impact of wastages on KCPE performance in primary schools in Kandara and neighboring Sub Counties was recommended.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>i</td>
</tr>
<tr>
<td>DECLARATION</td>
<td>ii</td>
</tr>
<tr>
<td>DEDICATION</td>
<td>iii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>iv</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>v</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>vi</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>x</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>xi</td>
</tr>
<tr>
<td>LIST OF ABBREVIATIONS/ ACRONYMS</td>
<td>xii</td>
</tr>
</tbody>
</table>

## CHAPTER ONE

1.1 INTRODUCTION .............................................................................. 1
1.2 Background of the Study ......................................................... 1
1.3. Statement of the Problem ...................................................... 6
1.4 Purpose of the Study .................................................................. 7
1.5 Objectives of the Study .......................................................... 8
1.6 Research Questions .................................................................... 8
1.7 Study Assumptions ..................................................................... 8
1.8 Limitation of the Study ........................................................... 9
1.9 Delimitations ............................................................................. 9
1.10 Significance of the Study ....................................................... 9
1.11 Theoretical Framework ........................................................... 10
1.12 Conceptual Frame Work ............................................................ 12
1.13 Operational Definition of Terms ............................................. 15
CHAPTER TWO ............................................................................................................. 16
REVIEW OF RELATED LITERATURE ........................................................................... 16
2.1 Introduction ........................................................................................................... 16
2.2 Causes and Types of Wastage .............................................................................. 16
2.3 Impact of Wastages ............................................................................................. 23
2.4 Strategies to Curb Wastage ................................................................................ 26
2.5 Summary .............................................................................................................. 28

CHAPTER THREE ........................................................................................................ 30
RESEARCH DESIGN AND METHODOLOGY ................................................................ 30
3.1. Introduction ........................................................................................................ 30
3.2. Research Design ................................................................................................. 30
3.3. Location of the Study ........................................................................................ 31
3.4. Target Population ............................................................................................... 31
3.4.1. Sampling Techniques ..................................................................................... 31
3.5. Research Instruments ......................................................................................... 32
3.6. Pilot Study .......................................................................................................... 33
3.6.1. Validity ......................................................................................................... 33
3.6.2. Reliability ..................................................................................................... 34
3.7. Data Collection Procedure ................................................................................ 34
3.8. Data Analysis and presentation .......................................................................... 35
3.9. Data Management and Ethical Consideration ................................................... 36

CHAPTER FOUR .......................................................................................................... 38
FINDINGS, INTERPRETATION AND DISCUSSIONS ......................................................... 38
4.1. Introduction ........................................................................................................ 38
4.2. Demographic Information .................................................................................. 38
4.3. Analysis of Research Questions

4.3.1 Research question one: What are the types and causes of wastage in secondary schools in Kandara Sub County, Muranga County

4.3.2 Whether the class teachers’ respondents were satisfied with the KCSE results...

4.3.3 Are there cases when the students have been out of school for any reason?

4.3.4 Are there instances when you fail to attend class?

4.3.5 Reasons for the above information

4.3.6 List down measures put in place to recover lost time

4.3.7 Are there instances when students missed lessons?

4.3.8 Measures put in place to curb absenteeism

4.3.9 Is there any student who repeated or joined your class on transfer as repeater?

4.3.10 Reasons why students repeat

4.3.11 Did your class experience cases of dropout?

4.3.12 Measures put in place to curb dropout (teachers)

4.4 Research question two: What is the Impact of wastage on performance

4.4.1 Does regular absenteeism affect performance of students?

4.4.2 How is the performance of those students who repeat classes?

4.4.3 Measures to curb repetition in secondary schools

4.5 Strategies to curb wastage in secondary schools

4.5.1 Suggest possible solutions to the wastages

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

5.2 Summary of the Findings

5.2.1 Types and causes of wastage

5.2.2 Impact of wastages on performance
5.2.3 Measures to curb wastage......................................................... 63
5.3 Conclusion................................................................................. 65
5.4 Recommendations.................................................................... 66
5.5 Suggestions for Further Research ............................................. 67
REFERENCES.................................................................................. 68
APPENDICES ................................................................................ 75
Appendix A: Questionnaire for Students........................................ 75
Appendix B: Questionnaire for Class Teachers................................. 78
Appendix C: Interview schedule for Principal .................................. 83
Appendix D: Interview schedule for Education Officers. .................. 84
Appendix E: Consent letter............................................................... 85
Appendix F: Research budget.......................................................... 86
Appendix G: Timeframe................................................................. 87
Appendix H: Map Showing Location of Murang’a County ............... 88
Appendix I: Map of study area....................................................... 89
Appendix J: Research Approval Letter .......................................... 90
Appendix K: Research Authorization Letter ................................... 91
Appendix L: Research Permit......................................................... 92
Appendix M: Bank slip................................................................. 93
LIST OF TABLES

Table 3.1: Shown below represent sampled respondents from target population........ 32
Table 4.1: Respondent’s Gender ................................................................. 39
Table 4.2 Age of students ................................................................. 39
Table 4.3: Number of streams ............................................................... 41
Table 4.4: Kandara Sub County KCSE performance................................. 42
Table 4.5: Number of lessons per week.............................................. 43
Table 4.6: Reasons for student’s absenteeism ........................................ 44
Table 4.7: Reasons why students repeat classes.................................... 49
Table 4.8: Cases of dropout ................................................................... 50
Table 4.9: Possible impact of absenteeism on performance ....................... 55
LIST OF FIGURES

Figure 1: Impact of wastage rates on KCSE performance................................. 13
Figure 2: Respondents Class........................................................................... 40
Figure 3: Type of the School .......................................................................... 40
Figure 4: Possible reasons for student missing lessons.................................... 47
Figure 5: Student who repeated or joined your class on transfer as repeater ........ 48
Figure 6: Reasons for dropout (Teachers). ....................................................... 51
Figure 7: Reasons for dropout (Students)......................................................... 52
Figure 8: Status of performance of students that repeat classes....................... 56
LIST OF ABBREVIATIONS/ ACRONYMS

ADEA- Association for the Development of Education in Africa
BOM - Board of Management
CDF - Constituency Development Fund
DPFM- Development Policy Management Forum
EFA - Education for All
EMIS- Education Management Information System
ESR - Education Sector Reforms
FDSE - Free Day Secondary Education
GED- Global Educational Digest
MDG - Millennium Development Goals
MTEF - Mid Term Expenditure Framework
TVET- Technical Vocational Education and Training
PTA- Parent Teachers Association
PTR- Pupil Teacher Ratio
SSA- Sub Sahara Africa
UIS- UNESCO Institute of Statistics
CHAPTER ONE

1.1 INTRODUCTION

This first section of the proposal analyzed the study in these divisions; background to the study, statement of the problem, purpose and objectives of the study, research questions, limitations and delimitations of the study, assumptions of the study, significance of the study, theoretical and conceptual framework and finally operational definition of terms.

1.2 Background of the Study

Education is defined as any act or experience that has formative effect on the mind, character or physical ability of an individual. It is the process by which society transmits its accumulated knowledge, skills and values from one generation to another (ADEA 2010). Education is considered as cornerstone of economic and social development, improves productive capacity of societies and their political, economic and scientific institutions, helps reduce poverty by eliminating its effects on population health and nutrition. It increases value and efficiency of labor.

Secondary Education is becoming a growing concern and a major challenge for education policy makers and researchers as it plays an increasingly important role in creating healthy and cohesive societies and spurs economic growth. Additionally, it presents a critical stage of the system that links initial education to higher education and connects the school system to the labor market (Global Education Digest 2011, OECD, 2012). Resources allotted for secondary education service delivery is pegged on finances; however there is low productivity of education products despite the enormous amounts
invested on education (Akinsulu and Olatoun, 2005). While participation at secondary level has grown significantly in many countries, equitable access and completion, quality and relevance represents a major challenge. Secondary school systems are expected to be efficient to produce optimal output with minimum input but elements of inefficiency are depicted by repetition, dropout and increased failure, thus constituting wastage. Wastage experienced reveals that objectives are not met since students’ achievements and transition to tertiary institutions are very low (RoK, 2012).

Africa spends roughly the same percentage GDP on education as East Asian countries. (Verspoor and Bregman, 2008). In 2004, Africa spent 4.6% on education compared to 4.3% and 4.6% in Korea & Singapore, Thailand & Vietnam but outcomes are different due to efficiency in resource use and faster economic growth in Asia. To sustain progress in secondary school more efficiency in the use of education resources and sustainable policies are necessary (World Bank, Verspoor & Bregman, 2008). Recent report indicate that in Africa public spending on education has increased by more than 6%. Overall, Sub Sahara Africa spends 5% of its GDP on education which is second only to North America and Europe at 5.3% but one third of the region’s countries, half of all children still do not complete primary education (UNESCO, 2011). GED (2012) noted that, Africa has the highest dropout rate 42% of African children leave school early.

In Sub Saharan Africa governments spend substantial amount on resource inputs in education to enhance achievement and performance. These efforts are hampered by mismanagement in the face of scarce resources, for instance, in Nigeria, according to Olatoun (2011) school managers should make use of scarce educational resources to ensure students stay for minimum number of years in a school system thus promoting
efficiency and reducing wastage i.e. dropout, repetition and not entering tertiary institutions.

Sesional Paper no. 14 of 2012 Contains reforms anchored in the Bill of Rights contained in the constitution of Kenya 2010. The Constitution provides for the rights of Kenyan people to education (articles 20, 35, 42, 43) while Vision 2030 underscores the importance of education in ensuring relevant human and social capital for sustainable development. However, high dropout rate threatens the vision’s goal. Its corroborated by research from KIPPRA which shows that the survival rate from class one to form four is below 20% while those who survive from class one to university is 1.69% (Business Daily 4/2/2014). According to The Basic Education Act (2013 sec. 28:1) it’s the right of every child to free and compulsory basic education. The Act also emphasizes that education is a fundamental human right, therefore the state is accountable for ensuring that every child aged 4-17 years is in school in consistent with international commitments and conventions to which Kenya is a signatory(RoK, MoEST, 2013)

Individual citizen and government have invested heavily in improving both access and quality in a bid to realize education for all and education-related millennium development goals (MDG) and vision 2030. Report from (2012) Economic Survey, Planning, National Development and Vision 2030 noted that the Government was investing massive resources in the social sector particularly in education in response to the ever increasing demand for the service. UNESCO (2011) stipulated that Kenya spends 6.7% on education (as percentage of GDP) with 22% on secondary education (as percentage of total expenditure). The recurrent budget 2010/2011 rose from 134.1 billion to 149 billion 2011/2012, whereas the ministry of education recurrent budget was estimated at 163.4

Education sector has experienced massive expansion in enrolment and number of institutions over time. According to the Ministry’s Education Management Information System (EMIS) number of public and private primary schools increased from 6058 in 1963 to 27489 in 2010, whereas secondary schools increased from 151 in 1963 to 7308 in 2010. Despite the increased enrollment, transition rate from secondary level to university still remains low, in 2010 transition rate was 6.5% (RoK 2012). It was further noted that in 2010, 357,488 candidates sat for the Kenya certificate of secondary examination (KCSE). 97,137 obtained minimum requirement for university admission at C+. Public Universities admitted 32,000 students while private universities admitted 10,000 students. In 2011 the number of candidates with C+ increased to 119,658 (economic survey 2012).

The 2011 enrollment in public TVET institutions was 60,000 with annual intake roughly 25,000. Other middle colleges in public and private sector estimated to have admitted 75,000 students, thus the 357,488 KCSE candidates in 2010, only 142000 or 40% could find opportunities for further or higher education. The rest 215488 or 60% had to seek room in the existing structure to undertake formal training or join the work force. This constituted a huge loss to the national economy.

Despite the progress made over the years, secondary sector faces major challenges in enhancing access, retention, quality, completion rate and gender parity in marginalized areas, pockets of poverty in rural and urban areas, unfriendly environments in schools, teacher absenteeism and lateness, poverty at household level, negative effect of HIV/AIDS pandemic and rising repetition rates drive children away from secondary
schooling. There also exists inequitable distribution of teachers, teaching and learning resources between national, provincial and district category of schools. Learners exiting secondary schools have limited skills and abilities to join the labor market, trade or join middle and tertiary level institutions (ROK, 2012).

Governance and management of education and training also faces the challenge of inefficiency in the management of resources and utilization. Funds disbursed directly to institutions at times not properly used for the intended purposes. There exists weak accountability, inefficient monitoring and tracking system with over centralized, hierarchical and bureaucratic decision making system which encourages mismanagement, absence of legal provisions guarding against misinformation or non-cooperation of required data, heads of units and institutions provide inaccurate data to suit their unique circumstances while the institutional governance organs like BOM and PTA have insufficient authority to enable management of institutions (RoK, 2012).

The above mentioned challenges facing education in secondary schools in Kenya are compounded by the student and institutional factors that influence educational wastages. Here the disposition of the individual student may determine whether they remain in school up to completion or dropout. According to Alexander and Simmons (2005) student achievement in school is determined by home background and individual personality. Socio-economic backwardness of the family is one of the causes contributing to repetition and dropout due to excessive involvement of learners in domestic work and parental opposition or indifferences towards education as well as education status of the parents. Educational factors also contribute to repetition thus stagnation. There is also absence of relationship between education system and economic needs of the community,
admission policy, lack of physical facilities; poor institutional environments, death of parents and poor physical standards of learners could also cause wastage.

In Kandara Sub county overall student performance in KCSE has been low. Report from Kandara district KCSE (2009-2013) analysis showed that out of the 2967 candidates who sat for their KCSE exam in 2009, only 608(20%) attained C+ and above with a mean score of 4.7 against the national score of 12 points whereas 3378 candidates who sat for the KCSE exam in 2010, 796(23.6%) attained university admission of C+ and above with a mean standard score of 4.8. In 2011 out of the 3952 candidates 844(21.4%) managed C+ and above with a mean score of 4.6 while in 2012 out of 3769 candidates 867(23%) attained c+ and above with a mean score of 4.7. In 2013 out of 3716 candidates 896(24.1%) managed C+ and above with a mean score of 4.75. The above results portray wastage of education resources (MoEST, 2009-2013).

1.3. Statement of the Problem

Basic Education is a right to every child in Kenya, therefore every child is entitled to free and compulsory basic education. To enhance free and compulsory basic education, the Kenya government spends approximately 38.5% of her recurrent expenditure on education. The intention of the huge expenditure is to alleviate poverty and bring about economic growth and development. However, nationally the Sub Sector has been characterized by wastages. MOEST noted that in 2010, 357,488 candidates sat for the Kenya certificate of secondary examination (KCSE). 97,137 obtained minimum requirement for university admission at c+. Public Universities admitted 32,000 students while private universities admitted 10,000 students. In 2011 the number of candidates
with c+ increased to 119,658. The 2011 enrollment in public TVET institutions was 60,000 with annual intake roughly 25,000. Other middle colleges in public and private sector estimated to have admitted 75,000 students, thus the 357,488 KCSE candidates in 2010, only 142000 or 40% could find opportunities for further or higher education. The rest 215488 or 60% had to seek room in the existing structure to undertake formal training or join the work force. This constituted a huge loss to the national economy.

Despite the huge inputs into the education system reflected in the recurrent education budget 2010/2011 increased from 134.1 billion to 149 billion in 2011/2012 and 163.4 billion in 2012/2013 Secondary education achievement in Kandara Sub County has been far below the National standards as depicted by results for 2009-2013. The results revealed that on average, most students achieved D+ indicating that they could not qualify for admission in institutions of higher learning. The dismal performance resulted to students repeating in order to acquire admission to the university. It is against this background that the study investigated the causes and impact of wastage on KCSE performance in secondary schools in Kandara Sub County. The study also found out the mechanism put in place to curb the wastage.

1.4 Purpose of the Study

The study determined impact of wastage on KCSE performance in view of finding out suitable measures to curb wastage in secondary schools in Kandara Sub County.
1.5 Objectives of the Study

The study focused on the following objectives.

i. To examine types of wastage in secondary schools in Kandara Sub County, Muranga County.

ii. To establish causes of wastage in secondary schools in Kandara Sub County.

iii. To investigate impact of wastage on performance in secondary schools in Kandara Sub County, Muranga County.

iv. To determine strategies to curb wastages in secondary schools in Kandara Sub county, Muranga County.

1.6 Research Questions

i. What are the types of wastage in secondary schools in Kandara Sub County, Muranga County?

ii. What are the causes of wastage in secondary schools in Kandara Sub County?

iii. What is the impact of wastages on performance in secondary schools in Kandara Sub County?

iv. What are the strategies to curb wastages in secondary schools in Kandara Sub County, Muranga County?

1.7 Study Assumptions

Wastages in schools are caused by misappropriation of resources. Wastages cause dropout, repetition and failure. Wastages could have led to poor performance. Proper use of resources could have led to good performance. In Kandara there could have been a
large number of qualified teachers to contribute to better performance. Teachers were equally distributed in the schools.

1.8 Limitation of the Study

The research involved quite a lot of expenses due to travelling to the schools. Availability of data depended on honesty of respondents. Deadlines were in some cases postponed due to unforeseen circumstances like breakdown of vehicles and administrators not honoring their appointments.

1.9 Delimitations

The study was limited to all public secondary schools in Kandara Sub County, Muranga County.

1.10 Significance of the Study

Generally, good results in any examination ensure individual mobility on the academic ladder and social life. Therefore, so long as KCSE is the only way of selecting students for admission into higher levels of learning, establishing causes and impact of wastage on KCSE performance and establishing mechanisms for curbing wastage may provide answers to address the situation. This study intended to examine the causes and impact of wastage in secondary schools in Kandara Sub County. It intended to come up with findings that would explain why wastages existed in secondary schools in Kandara. It could provide a point of reference to other scholars and researchers. It could also help minimize cases of dropout and repetition among students. The study could help teachers
reduce cases of dropout and repetition in Kandara Sub County and improve on individual subject performance

The knowledge of the causes and impact of wastages could provide a basis or starting point for policy deliberations on how to avoid future wastages and improve on the general performance in KCSE examination in Kandara. The ministry of education and county governments could also find the study relevant for the provision of various policy guidelines and directives in the education sector. The findings could help the ministry in establishing mechanisms for minimizing wastages among students in secondary schools in Kenya. The findings of the study were also intended to assist the ministry in providing facts based advice to teachers who interact with learners. It was expected that upon reading the findings and conducting self assessment, all education stakeholders could embark on efforts to reduce wastages in secondary schools, therefore improve the general performance in KCSE.

1.11 Theoretical Framework

The study was guided by Production Function Theory adopted by Hanushek (2010) from the Coleman Report 1966.

Education Production Function relates various inputs to education including those of families, peers and schools to the maximum level of student achievement that can be obtained. The common inputs are things like school resources, teacher quality and family attributes. Outcome is the measure of student performance and the knowledge of production function for schools can be used to assess policy alternatives and to judge effectiveness and efficiency of public provided services. Most frequently employed
The measure of schooling has been attainment or years of schooling completed. The value of school attainment as a rough measure of individual skill has been verified by a wide variety of studies of the labor market outcomes as stipulated by Mincer, (1970) and Psacharopoulos & Patrinos, (2004). This common measure of outcomes is difficult because it simply counts time spent in schools without judging what happens in the schools, thus doesn’t provide complete or accurate picture of the outcomes. It assumes that a year of schooling produces the same amount of student achievement or skills over time.

In this context, education is viewed as a productive activity that aims at minimizing set of inputs for a given set of outputs or maximization of outputs for a given set of inputs (Vijay, 1962). Inputs include teaching and non-teaching staff, teaching-learning materials and buildings whereas outputs are graduates of any educational level. However, it’s difficult to measure inputs and outputs and quantifying them. As regards inputs, non-school factors like home background, socio-economic status and student time influence the outcome, yet the theory ignores this. It’ll be difficult to measure outputs since the school has diverse functions that make education output a multiproduct of direct and indirect output (Gravenir and Gatimu, 1991). In most cases, examination achievements and the number of students completing a level has been perceived as output measures of schools. This study will use examination achievement to establish if the existing inputs are used to produce maximum output with a view to determine existence or non existence of wastage in the system.
1.12 Conceptual Frame Work

A conceptual framework is a model of presentation whereby the researcher conceptualizes or represents the relationship between variables in the study graphically or diagrammatically (Orodho 2012).
Figure 1: Impact of wastage rates on KCSE performance

Source: Researcher 2014
Figure 1 Show how various factors within the school, family and community affect student performance resulting to repetition or premature leaving. These factors include the student himself, school, parents and the community. The arrows indicate the factors which may have significant influence in the other category either positively or negatively.

In this conceptual framework, independent variables (students, parents and community) interact with (school factors-teachers, books, syllabus, and physical resources) to produce wastage (repetition, dropout, absenteeism) which impacts on outcomes (student performance) which could be negative (repetition, poor performance) or positive (promotion, good performance). School factors directly affect student’s attitude and overall performance, thus influencing retention and wastage. The family background highlights socio cultural factors, family income and expectations among other factors. This determines the extent to which individual student get motivation to excel in school and is ready to be processed into a final product that can benefit the immediate family and the society or de motivation due to weak link between the student and the family, this would lead to repetition and dropout.
1.13 Operational Definition of Terms.

Wastage- refers to premature withdrawal of learners from the system.

Drop –refers to product of a certain institutions in terms of achievement.

In put –refers to the resources that are put into education system which may include learners, teachers and material resource.

Transition Rate- refers to the percentage of students promoted to the next level

Other Stakeholders- refers to parents, community, religious organizations and NGOs.

Retention- refers to remaining in school consistently and out- refers to learners leaving school before completion due to diverse reasons.

Education Wastage- refer to the total number of student years spent by repeaters and dropouts in an education cycle

Repetition –refers to learner remaining in the same class for an extra year.

Output successfully completes a cycle

Completion Rate- refer to the number of learners who manage to stay consistently in school and finish a cycle
CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter reviews the study on impact of wastages on performance by different authors. It also focuses on the strategies to curb the high wastages. This chapter is divided into the following headings: types and causes of wastage in secondary schools, Impact of Wastage and Strategies to curb Wastages.

2.2 Causes and Types of Wastage

Wastage refers to various aspects of failure of an education system to achieve its objectives. According to Oyatekin and Odunayo (2013) wastage is an unprofitable and uneconomical utilization of time and resources, inability of a student to obtain one’s certificate at the normal time for any reason. It implies the input, time and effort expended in doing things but with no positive outcomes or outputs. Oyatekin (2011) viewed education wastage as premature withdrawal of a child or student from school at any stage before completion of the prescribed course.

Wastage in schools can be attributed to repetition and drop out which could be influenced by socio-economic and educational factors. Socio-economic backwardness of the family is one of the causes contributing to repetition and dropout due to excessive involvement of learners in domestic work and parental opposition or indifferences towards education as well as education status of the parents. Educational factors also contribute to repetition thus stagnation. There is also absence of relationship between education system and
economic needs of the community, admission policy, lack of physical facilities; poor institutional environments, death of parents and poor physical standards of learners could also cause wastage. Patrinos and Psacharopoulos (1996) reported that repetition is severe among most deprived whose parents have lowest levels of education and income.

Abadzi (2007) points out that in Brazil, most children suffer from highest rate of grade repetition and dropout rates in the world, as well as high disparities in quality of education among rural and non-rural populations. She further explains that Brazilian schools suffer several systemic issues: a lot of time spent on organization and absence of teachers which result to dropout, failing classes and graduating without being able to read at adequate level.

Brazil spends same percentage of GDP on public education as other Latin American countries; however gross inefficiencies in education system undermine the investment. In 1988, Brazilian Government mandated 18% of its budget to be used on education. This reveals that Brazil education system doesn’t suffer from lack of funding but mismanagement of resource (Abadzi, 2012). It suffers from high dropout and repetition rates at 33% and 12.4% respectively (World Bank, 2011). Dropouts are related to teen pregnancy (Cardoso & Verner, 2008). Cunningham & Jacobsen (2008) say that family background impact on education attainment and grade repetition, inadequate use of classroom time, high rates of teacher absenteeism, pedagogies used detract from retention and doesn’t bolster cognitive skills (Abadzi, 2007). Cardoso and Vener (2006) attributed high dropout rates to extreme poverty.
According to Argy (2007), Australia has high educational standards compared to OECD countries. Differences in academic performance in Australia depend on class, family and social background. What’s spent on education flows to the advantaged students since the education system is dependent on private funding. Public schools are disadvantaged, hence offer less favorable peer pressure, facilities and buildings and do not attract good teachers.

In India, according to Chagh (2011) Secondary education constitutes eight years compulsory education. Private institutions contribute significantly to secondary schooling facilities, however, participation at secondary level remains low, very few complete elementary educations and little transit to secondary education as dropout rates are very high. Research has found out that socio-economic status measured by parental education and income is a predictor of school achievement and dropout behavior (Bryk & Thum, 1989, Pong and Ju, 2000).

UNESCO institute for statistics (Global Education Digest, 2007) observes that households in India pay 28% of the cost to send children to primary and secondary school. This expenditure causes real barrier for children of poor families. Secondary education is not free therefore parents bear the education expenditure resulting to children dropping out before completing secondary education. Researchers have observed that low achieving students from low socio-economic backgrounds are at risk of dropping out due to inadequate parenting, financial constraints, poor schooling infrastructure, demotivated teachers, pressures to augment family income, poor nutrition and health, few role models in the community and peer group (Chagh, 2011).
According to Tikkiwal and Tikkiwal (2000) developing countries investment in education is key to a nation’s economic social and cultural development yet emerging financial pressures are evidenced by education expenditures. Despite the financial resources there’s disparity between education efforts and out puts in terms of education attainment and required manpower. A World Bank Policy Research Paper on Absenteeism and beyond, Instrumental time loss and consequences (2007) by Abadzi reveals that in developing countries teachers are often absent and use time inefficiently, hence social ramifications that undermine economic growth.

Research by Verspoor and Bregman (2008) reveals that Africa spends roughly the same percentage GDP on education as East Asian countries. In 2004, Africa spent 4.6% on education compared to 4.3% and 4.6% in Korea & Singapore, Thailand & Vietnam but outcomes are different due to efficiency in resource use and faster economic growth in Asia. Education attainment in SSA is lower than any other region. Secondary education systems are ill prepared with structure and organization of service delivery costly and poorly managed (Lewin, 2006, Mingat, 2004). Curriculum content outdated and ill adapted to the demands of the 21st century (Bregman and Bryner, 2003, Lewin, 2008). Levels of learning are low, repetition and dropout high and graduates are poorly prepared for further education &training or entry into the labor market.

UNESCO (2004) noted that highest repetition rates were found in West and Central Africa (18.8%), Middle East and North Africa (12%), in Eastern and Southern Africa (12.3%). The survey also noted that repetition rates in developing countries are quite high, with highest rates in SSA where each year about 22% of primary and 21% at
secondary level were repeating grades. The situation is worse in secondary schools in Congo (30%) and Algeria (27%)

In Nigeria, there is seemingly low productivity of education products, despite the high amount vested on education. Olatoun (2011) observes that elements of inefficiency in the system, students repeating classes, dropping out and failure constitute wastage, therefore objectives of secondary education are not fully met and student’s desire for achievement and transition to tertiary institutions has become very low. According to Durasaro (1989) secondary schools in Nigeria, experience serious student wastage rates through repetition, dropout and failure of students. Environmental factors also contribute to wastage, for instance, financial difficulties of parents, withdrawal of students to seek employment, dismissal for disciplinary purposes as well as natural factors like death and illness.

In South Africa, Legotlo, Maaga and Sebago (2002) put it that poor performance is an indicator of low internal efficiency of an education system which implies wastages and increase in the cost of education. Poor student performance is caused by socio-economic backgrounds (Legotlo, 1988) inadequate resources, unclear Government policy, ineffective school policies, lack of staff discipline, union activities, lack of parental involvement, student indiscipline and lack of commitment.

In Kenya, education is widely perceived as the most promising path for individual to realize more productive lives and primary drivers of national economic development. Glennerster et al (2011) says that citizens and government invested heavily in improving both access and quality in a bid to realize education for all and education related millennium development goals and vision 2030.
Education sector has experienced massive expansion in enrolment and number of institutions over time. According to the Ministry’s Education Management Information System (EMIS) number of public and private primary schools increased from 6058 in 1963 to 27489 in 2010, whereas secondary schools increased from 151 in 1963 to 7308 in 2010. According to the Educational Sector 2013/14-2015/6 MTEF, there were 58 universities in Kenya which included 7 public and 27 private and 24 university constituent colleges. The sector also realized increased enrollment in secondary school from 1.7 million in 2010 to 1.9 million in 2012. Economic survey (2012) noted that the number of KCSE candidates who attained mean grade C+ and above increased from 97134 in 2010 to 119658 in 2011. This resulted to more students meeting university admission threshold. The 2011/2012 double intake of 2009/2010 candidates increased enrollment in universities by 11.6% from 177,618 in 2010/2011 to 198,260 in 2011/2012.

Despite the increased enrollment, transition rate from secondary level to university still remains low, in 2010 transition rate was 6.5% (RoK, 2012). In 2010, 357,488 candidates sat for the Kenya certificate of secondary examination (KCSE). 97,137 obtained minimum requirement for university admission at C+. Public Universities admitted 32,000 students while private universities admitted 10,000 students. In 2011 the number of candidates with C+ increased to 119,658 (economic survey 2012). The 2011 enrollment in public TVET institutions was 60,000 with annual intake roughly 25,000. Other middle colleges in public and private sector estimated to have admitted 75,000 students, thus the 357,488 KCSE candidates in 2010, only 142000 or 40% could find opportunities for further or higher education. The rest 215488 or 60% had to seek room in
the existing structure to undertake formal training or join the work force. This constituted a huge loss to the national economy.

Despite the progress made over the years, secondary sector faces major challenges in enhancing access, retention, quality, completion rate and gender parity in marginalized areas, pockets of poverty in rural and urban areas, limited facilities, opportunity and other costs, imposition of levies and other fees by schools, perceived lack of relevance of the curriculum, mismatch between what is taught and the needs of the labor market, unfriendly environments in schools, teacher absenteeism and lateness, poverty at household level, negative effect of HIV/AIDS pandemic and rising repetition rates. There also exists inequitable distribution of teachers, teaching and learning resources between national, provincial and district category of schools. Learners exiting secondary schools have limited skills and abilities to join the labor market, trade or join middle and tertiary level institutions, (RoK, 2013).

Governance and management of education and training faces the challenge of inefficiency in resource utilization. Funds disbursed directly to institutions at times not properly used for the intended purposes. There exists weak accountability, inefficient monitoring and tracking system with over-centralized, hierarchical and bureaucratic decision making system which encourages mismanagement, absence of legal provisions guarding against misinformation or non cooperation of required data, heads of units and institutions provide inaccurate data to suit their unique circumstances while the institutional governance organs like BOM and PTA have insufficient authority to enable management of institutions (RoK, 2013). Murithi and Gachungi (2011) contends that, delivery of secondary education has been marked by challenges which have resulted to
wastage from non-enrolment, declining retention and completion rate, grade repetition and drop out in schools, lack of school fees, indiscipline and teenage pregnancies, repetition to increase chances of better grade acquisition, parents request on transfer to another school to help gain academic momentum.

2.3 Impact of Wastages

Wastages hinders fulfilling of social demands in education for instance repetition is more wasteful because a repeater stay in school longer, causes loss of investment in education services and increases amount of expenditure per student. Additionally it raises inequalities as failure to get promoted is larger among learners of rural low socio-economic backgrounds.

According to Rafiq (1996) institutions consume inputs to produce outputs, efficient institutions make adequate use of inputs to yield maximum output. Education system consumes inputs like school buildings, facilities and teachers to attain maximum enrolment and produce literate population. Administrative inefficiency is reflected through various indicators like overspending, budgetary deficits, diversion of funds from one activity to another, procedural delays, refund of funds due to inability to spend in stipulated time or financial year, delay in completion of tasks or projects.

As far as management is concerned, organizational climate affects utilization of resources for instance decisions made with regard to activities of teacher and non-teaching staff affect efficiency utilization of human, infrastructure and financial resources. The system level staffing and actual work allocation influence efficiency, increased frequent transfer affect teaching. Rafiq (1996) and Sathar & Lloyd (1994) argue that under investment in
education and conformed rapid population growth hinder provision of sufficient schools and teachers. According to Brophy (2006) repetition translates to large class size and additional facilities, wastage of resources, social adjustment problem and likelihood of school dropout.

In Brazil, Statistics reveal severe problems in education system where 2/3 of students are functionally illiterate by the time they graduate, 60% doesn’t reach basic literacy in cognitive skills, only 8% reach literacy compared to 97.3% in Latin American countries. It suffers from high dropout and repetition rates at 33% and 12.4% respectively (World Bank, 2011).

According to Argy (2007) in Australia, the disadvantaged students are not targeted since 5-10% Government funding is based on needs. There are serious geographical disparities in education standards as country students are less likely to finish secondary school, perform poorly than urban students, have restricted choice of subjects, education performance is relatively low in the suburbs due to limited choice of schools. There is a wide achievement gap between the rich and the poor and performance gap between schools, nationally there is under achievement stemming from socio-economic barriers representing huge waste of potential human capital.

UIS (2007) observes that households in India pay 28% of the cost to send children to primary and secondary school. This expenditure causes real barrier for children of poor families. Secondary education is not free therefore parents bear the education expenditure resulting to children dropping out before completing secondary education. Researchers
have observed that low achieving students from low socio-economic backgrounds are at risk of dropping out, (Chagh, 2011).

According to Nakapodia (2010) in the Delta State of Nigeria the Federal Government invested large chunks of limited resources to increase education supply in secondary schools, yet allows children to drop out of school at will. Dropout leads to wasteful utilization of scarce educational resources without achieving the nation’s educational aspirations. Dropout also has negative effects on the economy as dropouts may create future higher costs by rehabilitating them through second chance of education.

According to Legotlo et al (2002) in South Africa, low internal efficiency of the education system implied wastage and increased cost of education, failing to complete high school education with the minimum time, social cost of secondary education increases without increasing the social benefits.

In Kenya, Report from the 2009, Census indicates that despite the introduction of FPE and FDSE, 1.9 million primary school age and 2.7 million secondary school ages were out of school in 2009 due to reintroduction of levies by school managers, for instance, PTA charges, extra tuition, exam fees, sports and boarding fee. These off budget expenditures add to the high cost of education in Kenya. Additionally, coordinating and mobilization of resources in secondary education remains a challenge where infrastructural development through decentralized funds like; CDF and LATF is not linked to central government spending. This resulted to emergence of small and unviable schools in some localities without qualified teachers or limited number of teachers. This problem is compounded by the co existence of over utilization and under utilization of
resources with PTR of 24:1 against the national PTR target of 35:1. There is also low
teacher workload of 18 contact hours per week; class sizes are lower in some areas and
also emerging challenge of small schools in some regions. Low performance in KCSE
affects development of an area as well as national development therefore; issues
responsible for poor performance deserve investigation. Low completion rate at
secondary school level bring about internal inefficiency which results to students
dropping out before graduating or grade repetition within the cycle (Sudi, 2002).

2.4 Strategies to Curb Wastage

Effective management of education system requires that retention rate be improved by
reducing educational wastage, while maintaining quality of the system at reasonable input
costs. Norms and regulations for education institutions should be formed to ensure
quality and efficient use of resources, readjustment in intersectional allocation of returns,
regular national academic and financial audit.

As far as management is concerned, decisions should be made with regard to activities of
teachers and non-teaching staff which affect efficient utilization of human, infrastructure
and financial resources. Measures on minimizing and checking wastages contribute
towards efficiency in resource utilization thus enhancing quality. Policy shift from
enrolment to development of mechanism lead to higher retention/low attrition, thus
contribute to increased efficiency of the system. Efficiency can be improved (input –
output ratio) by reducing repetition and dropout rate since repetition does not have
positive effects on student achievement or quality of education To sustain progress in
secondary school more efficiency in the use of education resources and sustainable policies are necessary (World Bank, 1980, 2008).

Abadzi (2007) asserts that in Brazil the problems of education wastage can be mitigated through: policy changes to restructure education as means to poverty reduction and improve classroom conditions. Policy tools can mitigate teacher absenteeism; principals enforce strict penalties on absenteeism. Programs addressing aspects of poverty encourage higher attendance, for instance, voucher programs, lowering cost of transportation and bolstering public health programs. Conditional cash transfers impact on education by reducing dropout, child labor and increased school attendance.

Argy, (2007) suggests that in Australia, the Government should focus on addressing inequalities from physical deterioration in public schools, exclusiveness of non-governmental school enrolment policies, defective socio-economic formula used in allocating grants, lack of incentive for good teachers to teach poor students and inadequate targeting of public education funds.

Chagh, (2011) contends that in India, to reduce dropout, there is need to: improve infrastructure, flexible curriculum, teacher motivation, access to schooling facilities improved by locating schools where needed most-5 km of any habitation or transport facilities arranged, avail scholarships, free uniform/textbooks/stationary to poor students, poor performance to be prevented through enhancement programs in the evening and summer programs, review curriculum, instructional materials and teacher preparedness. Inter sectoral approach to adopt preventive and restorative policies where dropouts are given a second opportunity or readmitted to increase chances in the labor market.
Nakapodia (2010) reiterated that in Nigeria, The National Policy on Education (2004) opted for a system of both formal and non-formal and allowed leaving and coming back to the school system. This resulted to secondary school student leaving at will to engage in socio-economic activities. This was aimed at saving scarce educational resources and put into alternative use from being wasted by those dropping out.

In South Africa, Legotlo et al (2002) concluded that monitoring policies by independent researchers, policy makers support resources to improve teaching and learning and teacher commitment could mitigate wastage.

In Kenya, Mwangi (2011) in her study on internal efficiency and impact on KCSE performance, reiterates that there’s need to assess the internal efficiency of public secondary schools to determine whether students complete the course having acquired knowledge and skills to enable them fit in society. Sudi (2002) emphasized that in an examination oriented educational system like Kenya, failure in examination may mean failure in life. Low performance in KCSE affects development of that area as well as national development therefore; issues responsible for poor performance deserve investigation. Sudi further asserted that school inspection is the constant appraisal of school programs which help in streamlining instructional methods; it should be periodic to assess educational standards.

2.5 Summary

From the foregoing literature, formal education is the largest industry and greatest consumer of public revenue. However, secondary education provision faces many challenges ranging from; retention, completion rate, opportunity cost, lacking curriculum
relevance. Governance is a challenge due to inefficiency in resource management, funds not used for intended purposes, existence of inefficient monitoring and tracking system. Financial and resource mobilization remains a challenge due to off-budget expenditures that add to high costs of education. These challenges culminate to wastages in terms of repetition, dropout, low transition rate and low student achievement. This study intended to find out the impact of wastage on KCSE performance in secondary schools in Kandara Sub County in view of finding solution to these wastages.
CHAPTER THREE
RESEARCH DESIGN AND METHODOLOGY

3.1. Introduction
This section deals with various procedures and strategies that will be useful in the study. It focused on research design, study locale, target population, sample and sampling techniques, data collection instruments, piloting, data collection and data analysis techniques.

3.2. Research Design
The study used a survey research design, which is descriptive in nature; descriptive phenomena must be obtained by means of descriptive research. Descriptive research attempts to describe what is in the social system, (Kombo 2006). The target population was all the fifty five secondary schools in Kandara Sub County. Questionnaires and interviews schedules were used in this survey. The data was gathered from the following respondents: principals, teachers, students and education officers through the administration of various instruments. The data gathered was subjected to both qualitative and quantitative analysis to determine the impact of wastages on KCSE performance in Kandara sub County, Muranga County. Qualitatively the data was obtained and description emphasized from numerical data terms. Quantitatively the study used numerical data to explore traits and situations. Statistical methods were used to analyze data to arrive at results which were interpreted to give meaning to the study. Principally this study employed graphs, tables, and pie-charts in trying to summarize the independent and dependent variables.
3.3. Location of the Study

The study was carried out in Kandara Sub County, Muranga County. (Lovel, Lawson, 2007) observed that the ideal settings for any study is one that is directly related to the researchers’ interests. The location is 50 Kilometres from Murang’a Town. The main economic activity here is agriculture and business. Kandara Sub County has been selected for this study as it produced dismal KCSE results (2009-2013, an average mean standard score of 4.7) also the area selected for this research is easily reachable by the researcher and therefore the collection of data was convenient to the researcher.

3.4. Target Population.

The target population comprised all the fifty five secondary schools in Kandara Sub County

Sampling Techniques and Sample Size

3.4.1. Sampling Techniques

The researcher used simple random and purposive sampling techniques. Simple random sampling was used to select 20/55 secondary schools in Kandara Sub County. 20 constituted 40% of the total number of schools. The number is justified because according to Gay (1992) a minimum sample of 10% is recommended for a large population and 20% for a small population in a survey research. Purposive Sampling ensure choosing the right habitation and meeting the correct people for the purpose of your study (Kombo, 2006, Orodho, 2009). In this study, purposive sampling was used to select education officers.
Sample Size

Table 3.1: Shown below represent sampled respondents from target population.

<table>
<thead>
<tr>
<th>Category</th>
<th>Target Population</th>
<th>Sampled population</th>
<th>%</th>
<th>Sampling procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schools</td>
<td>55</td>
<td>20</td>
<td>40</td>
<td>Simple random</td>
</tr>
</tbody>
</table>

3.5. Research Instruments

The study adopted the following two main research instruments:-

1) Questionnaires

The questionnaires were important for this purpose in order to obtain comparable responses. According to (Wiersman 1985), questionnaires measures likelihood of straight, even and blunt answers. This could be superior to an interview because social communion operates strongly in a face of situation that may prevent the person from expressing what he feels to be socially or professionally unacceptable views. The questionnaires contained unstructured open-ended and structured close-ended questions.

The following were the types of questionnaires that were used to collect data from the respondents in this study:-

a) Questionnaire for Teachers and Students

This instrument was structured to seek information on the current state of wastages and their impact on KCSE performance in secondary schools in Kandara Sub County and strategies to curb these wastages.
2) Interview schedules for Principals and Education officers

According to Orodho (2004), an interview is an oral administration or an interview schedule. In this proposed study the interview questions were used in order to seek information on the policies meant for minimizing wastages in secondary schools in Kandara Sub County.

3.6. Pilot Study

Questionnaires, interview schedules were piloted in one selected school not used for the study. The piloting ensured clarity and sustainability of the language used. Wiersman (1985) say that piloting is necessary as a way of finalizing the research instruments. Also, expert opinion from my supervisors helped to check on the content validity of the instruments. The purpose of this pre-testing assisted to find out any weakness that could be contained in the instruments. The piloting also determined whether the instruments were reliable and valid.

3.6.1. Validity

Validity is the degree to which test measures what is supposed to measure (Orodho 2009). The research instrument should be able to depict what it is supposed to measure. Therefore, for the purpose of this study, the supervisors examined the questionnaires, the interview schedules and provided a feedback to the researcher. Essentially validity was concerned with establishing whether the questionnaire content measures what it was supposed to measure.
3.6.2. Reliability

The reliability of the study addressed the similarity of the results through repeated trials. Reliability is the degree to which a question consistently measures, (Kombo and Tromp, 2006). The identified problems were supplied with the instruments and scored manually by the researcher for the consistency of results. A reliability coefficient was computed to test how reliable data was. According to Mugenda and Mugenda (2003) a coefficient of 0.7 or more implies that there’s high degree of reliability. Questionnaires were administered and responses analyzed after which one week period was allowed to pass before the same instruments were administered to the same respondents and analysis done. Pearson product moment correlation was used as a tool of correlation to analyze the relationship between the first and second administration. The results recorded a coefficient of 0.7. This was an indicator that the instruments were reliable. Pearson product moment formula for computing correlations

\[
r = \frac{\sum xy}{N} - \bar{x}\bar{y}
\]

\[
\sqrt{\frac{\sum x^2}{N} - (\bar{x})^2} \sqrt{\frac{\sum y^2}{N} - (\bar{y})^2}
\]

3.7. Data Collection Procedure

The target population for this study comprised of the 55 secondary schools from which 20 schools were sampled from Kandara Sub County, Muranga County. The respondents comprised of selected principals, teachers, students and education officers. The researcher made sure that the research instruments were complete and readily available. The questionnaires and the interview schedules were error free, the number of copies supplied was adequate. Other agents subscribed to supply the copies to the respondents were given well in advance. The researcher designed a schedule representing actual dates
and time framework of each activity and event in this research study. The researcher sought permission from Department of Educational Management, Policy and Curriculum Studies in Kenyatta University and the Ministry of Research Science and Technology, prior to arrangements with selected schools. Distribution of the research instruments was made by the researcher in advance through making appointments with the Principals in the respective schools and education officers. Before data collection, the researcher pre-tested all the research instruments. The researcher piloted the questionnaire with a small representative sample. This helped the researcher to find out if the selected questions were answering what they were supposed to measure.

3.8. Data Analysis and presentation

The researcher examined all the coded data and made inferences. Facts were important to this study because they relied on the revelations of the data. Facts led to new information, new experiences and new views before analyzing the collected data; the researcher ensured that data was well organized. After the data collection exercise, the researcher was in possession of all the filled forms of questionnaires from the respondents. Before starting the compilation and coding of the data, the researcher made sure that each question has been answered and the answers were properly recorded. From here the researcher developed a coding scheme.

The researcher familiarized herself with the field notes and interview scripts by reading many times as she made the notes and drew diagrams. This helped the researcher to know well the data and this made it easy to locate information that could support the
interpretation. This helped in drawing out relevant themes that were used in the study. The researcher used the statistical analysis in data organization and interpretation using descriptive statistics, frequencies, tables, graphs and charts in this study.

3.9. Data Management and Ethical Consideration

a) Logistical Consideration

The research involved a lot of funds making trips to the selected schools in Kandara Sub County, Murang’a County and hiring research assistants, printing, typing binding, consultation, photocopying. Therefore, the researcher introduced cost-saving measures. Time factor was very crucial since the distance between the selected schools was great. This consumed a lot of time to cover the whole Sub County. The researcher made prior arrangements for faster and efficient means of accessing the selected schools only. The scope of this study did not allow for 100% collection of data. This is because of the massive population of the potential respondents. Therefore, in this case simple random sampling was used by the researcher to collect data for inferential purposes.

b) Ethical consideration

Since the researcher appeared to invade a person’s privacy, the researcher did not subject people to situations harmful or uncomfortable to participants, unless people agreed to do it. The participation in research was voluntary and people had the right to refuse or divulge certain information about them. The participants were made aware of the positive and negative aspects or consequences of participation. The informed consent involved two main factors. First, the consent of the subjects as what was to be disclosed to the
researcher, secondly, assurances of confidential use of research data collected on individuals. The consent also helped the explanation that the purpose and nature of research benefited the participants. The researcher sought and obtained permission to conduct the research from the Ministry of Research science and technology.
CHAPTER FOUR

FINDINGS, INTERPRETATION AND DISCUSSIONS

4.1. Introduction

This chapter is divided into two main sections. Section one presented demographic data for the subjects. The second section presented the results of the study which are organized along the research questions of the study. As such, the research questions are first posed and then the data relating to that research question is presented. This is followed by a summary statement of the conclusion of the study in regard to the research question.

4.2. Demographic Information

This section deals with demographic characteristics of the respondents which involved gender, age and class of student respondents as shown in table 4.1 and figure 2 respectively. It also involves teachers’ gender, type of school and number of streams as indicated in table 4.1, 4.2 and figure 3. The question on gender aimed at establishing whether there was equal participation in the study. Figure 4.1 and whether the responses were representative. The question on age aimed at establishing whether those in secondary schools are of secondary school age going bracket which is between 14-17 years according to Kenyan Education system. The question on class aimed at establishing students’ experiences in the course of their study, the research found out that most of the students involved were form fours. This implies that they had stayed in school for long and were able to respond according to their long experiences indicated in figure 2. The question on type of school aimed at establishing the type of students that are admitted in
secondary schools in Kandara Sub County. This is indicated in figure 3. The question on number of streams in a school aimed at establishing whether there are small and unviable schools in Kandara Sub County contrary to the government policy of three streamed schools. This is indicated in table 4.3.

Respondents’ demographic data is presented in the following table.

**Table 4.1: Respondent’s Gender**

<table>
<thead>
<tr>
<th></th>
<th>Class Teachers</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Male</td>
<td>27</td>
<td>101</td>
</tr>
<tr>
<td>Female</td>
<td>23</td>
<td>89</td>
</tr>
<tr>
<td>50</td>
<td>100</td>
<td>190</td>
</tr>
</tbody>
</table>

The gender of the respondents was (27)45% male class teachers against (33)55% female and (101)53% male students against (89)47% female students respondents.

**Table 4.2 Age of students**

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.5-15.4</td>
<td>13</td>
<td>16.8</td>
</tr>
<tr>
<td>15.5-17.4</td>
<td>25</td>
<td>42.1</td>
</tr>
<tr>
<td>17.5-19.4</td>
<td>40</td>
<td>21.0</td>
</tr>
<tr>
<td>19.5-21.4</td>
<td>80</td>
<td>13.2</td>
</tr>
<tr>
<td>21.5-23.4</td>
<td>32</td>
<td>6.8</td>
</tr>
<tr>
<td></td>
<td>190</td>
<td>100</td>
</tr>
</tbody>
</table>

From the table 58.9% of the students are of secondary school age going bracket 14-17 while 39.3% are above the bracket. This implies that either they repeated in a certain
class or are beneficiaries of Free Primary Education or Free Day Secondary Education who went back to school after dropping out due to lack of school fees.

![Pie chart showing class distribution among respondents.

**Figure 2:** Respondents Class

Among the students respondents majority 46% were form 4 students followed by 38% form 3 while 16% form 2 students.

![Bar chart showing type of school by level.

**Figure 3:** Type of the School
Majority of the class teachers respondents 79.2% were from sub county schools followed by 20.8% from county school. None came from national schools. This indicates absence of national schools in the Sub County.

Table 4.3: Number of streams

<table>
<thead>
<tr>
<th>No. of streams</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7</td>
<td>11.7</td>
</tr>
<tr>
<td>2</td>
<td>30</td>
<td>49</td>
</tr>
<tr>
<td>3</td>
<td>16</td>
<td>27</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
<td>11.7</td>
</tr>
</tbody>
</table>

Majority of schools involved in this research (30) 49% were a double stream followed by 16(27%) which were three streams schools. Only (7) 11.7% were single and four streams each.

4.3. Analysis of Research Questions

4.3.1. Research question one: What are the types and causes of wastage in secondary schools in Kandara Sub County, Muranga County

Majority of class teacher respondents (70%) cited uneconomical utilization of time, resources and effort as the major types of wastages in secondary schools in Kandara Sub County. These wastages could have been caused by absenteeism, repetition and dropout which culminated to poor performance as depicted in table 4.4 below.


Table 4.4: Kandara Sub County KCSE performance

<table>
<thead>
<tr>
<th>Year</th>
<th>Mean standard score</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>4.7</td>
</tr>
<tr>
<td>2010</td>
<td>4.8</td>
</tr>
<tr>
<td>2011</td>
<td>4.6</td>
</tr>
<tr>
<td>2012</td>
<td>4.7</td>
</tr>
<tr>
<td>2013</td>
<td>4.75</td>
</tr>
</tbody>
</table>

4.3.2. Whether the class teachers’ respondents were satisfied with the KCSE results

Majority of the respondents 75% indicated that they were not satisfied while 25% said they were satisfied with the results. The dissatisfaction could have been caused by the low mean standard scores that were posted by the schools as indicated in table 4.4 above. The poor performance could have been caused by socio-economic background, inadequate resources, unclear government policy, ineffective school policies, lack of staff discipline, parental involvement, student indiscipline and lack of commitment. This view is shared by Sudi (2002) when he emphasized that in an examination oriented education system like Kenya, failure in examination may mean failure in life. Low performance in KCSE affects development of that area as well as national development. Therefore, issues responsible for poor performance deserve investigation. He further assented that school inspection is constant appraisal of school programs which help in streamlining instructional method it should be periodic to assess educational standards.
Table 4.5: Number of lessons per week

<table>
<thead>
<tr>
<th>No. of lessons per week</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-14</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>15-19</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>20-24</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td>25-29</td>
<td>34</td>
<td>57</td>
</tr>
<tr>
<td>30-34</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>35-39</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100</td>
</tr>
</tbody>
</table>

Majority of the respondents (34)57% had between 25-29 lessons per week followed by (15)25% and (6)10% respondents had between 20-24, 30-34 lessons weekly.

Teachers workload, portray disparity in distribution of work. It could probably have been caused by either shortages or over staffing in some subject clusters. This could lead to coexistence of over utilization and under utilization of resources despite (GoK, 2012) policy of reviewing staffing norms to enhance appropriate teacher development and utilization.

4.3.3. Are there cases when the students have been out of school for any reason?

All the respondent 100% said yes. This response could be very common especially in day schools that portray most of the challenges experienced in secondary schools ranging from distance from the school, lack of school fees and environmental challenges.
Table 4.6: Reasons for student’s absenteeism

<table>
<thead>
<tr>
<th>Reasons for absenteeism</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lateness</td>
<td>8</td>
<td>4.2</td>
</tr>
<tr>
<td>Lack of school fees</td>
<td>105</td>
<td>55.3</td>
</tr>
<tr>
<td>Poor health</td>
<td>53</td>
<td>28</td>
</tr>
<tr>
<td>Indiscipline</td>
<td>9</td>
<td>4.7</td>
</tr>
<tr>
<td>Family instability</td>
<td>15</td>
<td>7.8</td>
</tr>
<tr>
<td>Total</td>
<td>190</td>
<td>100</td>
</tr>
</tbody>
</table>

In articulating the reasons for student’s absenteeism, majority of the students respondents (105)55.3% indicated that the main reason for absenteeism was students’ lack of school fees. This was followed by (53)28% and (15)7.8% who cited poor health and family instability respectively as underlying reasons for the same. On reporting back, (98)52% indicated that teachers assisted them cover work taught in their absence while (92)48% were not assisted at all. It could imply lack of commitment by the teachers and lack of motivation to learn from the students. This view is shared by Bryk and Thum (1989), Pong and Ju (2000) claim that socio-economic status measured by parental education and income is a predictor of school achievement and dropout behavior.

4.3.4. Are there Instances when you fail to attend class?

Majority of the class teachers respondents (45)75% indicated that there were instances when teachers failed to attend class while (15)25% said they had never failed to attend class. This could imply that teachers absconded classes at the expense of the student who could have been left unattended and no work delegated.
4.3.5. Reasons for the above information

Teachers cited diverse reasons as to why they failed to attend classes which included: lateness, other school activities, lack of motivation, impassable roads during rainy season, sickness, meetings or subject workshops, personal commitments and co-curriculum activities. Time utilization in education is a crucial aspect, education specialists recognize that time is one of the ingredients of a sound instructional process. Though school attendance is not synonymous with learning student teacher contact hours significantly influence student achievement. Teacher preparation, interruptions and discipline oriented activities consume a share of the official school time. This corroborates with Abadzi (2007) when she pointed out that schools suffer systematic issues where a lot of time is spent on organization and absence of teachers which result to dropout, failing classes and graduating without being able to read at adequate level. This is also complimented by a World Bank policy research paper on absenteeism beyond, instrumental time loss and consequences (Abadzi, 2007) reveals that in developing countries teachers are often absent and use time inefficiently hence social ramification that undermine economic growth.

4.3.6. List down measures put in place to recover lost time

Teachers listed down various ways in which they recover lost time which included: through make up’s during free time, switching lessons, remedial teaching and creating time before and after the lessons in the evening. This could be a disadvantage to the day scholars who are at home in the evenings unlike their counterparts in boarding schools. This compliments Chagh (2012) view that there’s need to improve infrastructure, flexible
curriculum, teacher motivation, access to schooling facilities, locating schools where
needed most- 5km of any habitation or transport facilities availed.

4.3.7. Are there instances when students missed lessons?

All the class teachers’ respondents 100% indicated that there were instances when
students missed lessons. This could have been due to school related factors, family issues
or the student himself. Absenteeism could be associated with fees and indiscipline,
where indiscipline cases are handled by sending students home as option for punishment.
This way time and other inputs are wasted hence poor performance. Lack of school fees
cited as cause of absenteeism as parents are not able to pay school fees in full due to lack
of regular source of income. This could be an indicator of poverty within the locality.
When students are regularly sent home for school fees, it amounts to regular absenteeism
which affects school operations which include: delayed syllabus coverage, teachers are
forced to repeat what is already taught and underutilization of available resources.
Absenteeism leads to poor performance which in return leads to repetition which incurs
extra cost to the parent as the students takes more years to graduate. This could
eventually lead to dropout.
Figure 4: Reasons for student missing lessons

Majority of the class teachers’ (50)35.5% echoed that most of the students missed lessons due to lack of school fees while (40)28.4% and (37)26.5% missed school because of poor health and indiscipline respectively. Other reasons cited were school related which included games and music festivals, co-curricular activities while others were reported not to be comfortable and would want to join other schools. Drugs were also mentioned as causes of absenteeism. This view is shared by UNESCO institute of statistics (UIS, 2007) observation that secondary education is not free therefore parents bear the education expenditure resulting to students dropping out before completing secondary education.

4.3.8. Measures put in place to curb absenteeism

Teachers suggested that bursaries from the school could minimize absenteeism by helping retain needy students in school and not sending them home for school fees. Appropriate punishment could be applied to curb indiscipline among students. Discussing
with the parents on the progress of the learners could help check on absenteeism through joint effort. Follow up absenteeism cases by reporting to deputy principal and necessary action taken promptly once the student reports back. Insist on written permission to be out of school by bother parents and teachers. Report to the relevant authorities on absenteeism. Enforce school rules and regulations. Encourage parents to pay fees in due time by making arrangement on payment modalities with individual parents on request.

4.3.9. **Is there any student who repeated or joined your class on transfer as repeater?**

![Pie chart](image)

**Figure 5:** student repeaters

Most of the class teachers’ respondents (39)65% agreed that there were students who repeated or joined their class on transfer as repeater while (21)35% did not agree. Repetition could be imposed by schools on low achieving students who make poor progress despite regular attendance. Voluntary repetition in Kenya is common especially in the final year where students allowed to repeat are selected on their academic potential.
4.3.10. Reasons why students repeat.

In order to establish causes of grade repetition, the researcher sought responses from teachers and students. The findings were summarized in table 4.7.

Table 4.7: Reasons why students repeat classes

<table>
<thead>
<tr>
<th>Reasons for repetition</th>
<th>Class Teachers</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Irregular attendance</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>Poor performance</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>To acquire better grades</td>
<td>21</td>
<td>40</td>
</tr>
<tr>
<td>Indiscipline</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Lack of fees</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>Poor health</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Expulsion or suspension</td>
<td>3</td>
<td>4.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

On why most students repeat classes, majority of the class teachers, (21)40% and (13)20% indicated repetition to acquire better grades and poor performance respectively as the main reasons for repeating classes. Students’ respondents (134)71% and (48)25% also indicated the same reasons respectively. Repetition could be common in all levels but more explicit in forth form in the hope of acquiring better grades for university admission. This implies that could be experienced among the rich and medium income families that are able to pay the extra cost of education. Other reasons cited by the teachers include: irregular attendance (14%) of respondents and lack of school fees (14%) respondents. Irregular attendance could be attributed to students being sent home due to lack of school fees or indiscipline which could lead to poor performance hence repetition.
This compares with Cunningham and Jacobsen (2008) observation that family background impact on education attainment and grade repetition, inadequate use of classroom time, high rates of teacher absenteeism, pedagogies used detracts from retention and doesn’t bolster cognitive skills. It also corroborates with Patrinos and Psacharopoulos (1996) report that repetition is severe among the most deprived whose parents have lowest level of education and income.

4.3.11. *Did your class experience cases of dropout?*

Table 4.8: Cases of dropout.

<table>
<thead>
<tr>
<th></th>
<th>Class Teacher</th>
<th></th>
<th>Students</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Yes</td>
<td>42</td>
<td>70</td>
<td>178</td>
<td>94</td>
</tr>
<tr>
<td>No</td>
<td>18</td>
<td>30</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100</td>
<td>190</td>
<td>100</td>
</tr>
</tbody>
</table>

Majority of the class teachers’ respondents (42) 70% and students respondents (178) 94% said their classes experienced cases of dropout while (18) 12% of class teachers and (12) 6% students said they never experienced cases of dropouts. Respondents acknowledging existence of dropout could have been from sub county day schools where the environment determines attendance.
According to majority of class teachers 32.5%, the main reason for dropout from school was lack of school fees. Another 27% and 14% indicated that the reasons were expulsion/suspension and irregular school attendance respectively. Reasons for dropout could be school related, economic, family and personal factors. Figure 6 indicate that reasons for dropout are diverse, with the major reason for dropout being lack of school fees among others. Other causes of dropout cited by teachers include: parental negligence (13.3%), pregnancy and peer influence (9.6%) respectively. Parental negligence implies cases where parents are not interested in what the child under goes, thus the child is at the mercy of her/his peers and no proper guidance hence pregnancy eventually dropping out of school. Cases where students dropout due to lack of school fees could imply that parents are not able to raise required fees, students may be subjected to irregular school attendance by being sent home and may end up dropping out of school when balances accumulate. The sentiment is shared by (Global Ed. Digest 2007) that secondary

Figure 6: Reasons for dropout (Teachers).
education is not free, therefore parents bear the education expenditure resulting to children dropping out before completing secondary education.

![Figure 7: Reasons for dropout reported by (Students).](image)

Majority of the students’ respondents 20% indicated that many students dropped out of school due to indiscipline followed by 17% and 16% who left because of lack of school fees and pregnancy respectively. Other reasons cited by students include: early marriages (14%), others dislike the school (10%), alcohol/drug abuse and poor performance (9%) respectively. Students cited indiscipline as the major reason for dropout, This could have been associated with lack of proper guidance from both teachers and parents. This is expressed by Chagh (2011) that students from low socio-economic backgrounds are at risk of dropping out due to inadequate parenting, financial constraints, poor schooling infrastructure, de motivated teachers, pressures to augment family income, poor nutrition and health, few role models in the community and peer groups.
4.3.12. Measures put in place to curb dropout (teachers)

Teachers expressed the view that dropout could be solved through proper guidance and counseling, for both parents and students. Also cited the need for bursaries to aid needy students. This compliments government policy on continued provision of resources for free and compulsory education (GoK 2012). Advise parents to seek bursaries from other sources like CDF, donor funding to be sought by parents as well as teachers to assist the disadvantaged students. Also having regular class academic meetings/clinics could curb dropout.

Research findings from the principals’ interview concluded that there existed educational wastages in secondary schools in Kandara Sub-County in terms of absenteeism, repetition and dropout.

From the interview, it was established that absenteeism and lateness among teachers and students could have been caused by sickness, non-commitment, distance from the school and other social problems. Among the students, other causes included: lack of school fees, poor parenting and lack of follow-up from the school.

The principals acknowledged existence of repetition especially in the fourth grade. This was attributed to the need by students to better their grades to attain university admission, parental insistence and on rare instances schools force students to repeat due to poor performance.

Dropout was cited to be a major cause of wastage. This was attributed to poverty hence lack of school fees and child labor. Other causes cited included: coupling among
students, teen pregnancies, truancy/ indiscipline, Akorino and Mungiki influence, early marriages, peer pressure, drugs and thefts.

Interview with education officers revealed that the Sub County performs dismally in KCSE. This is indicated by Mean Standard Score of 4.7 which is far below the national standard. The performance could be attributed to various types of wastages that include dropout, repetition, and absenteeism. There are no records in the education office that indicate existence of dropouts in Kandara Sub County as no such data is asked from the schools. This could be attributed to inefficiency that exists in the education offices and schools.

However, the education officers interviewed cited indiscipline and lack of school fees as some of the reasons why Students dropout in Kandara sub county. The officers also acknowledged existence of repetition in secondary schools in Kandara Sub County. The officers claimed that students repeat to improve their grades, this could be voluntary or teacher- parent agreement.

4.4 Research question two: What is the Impact of wastage on performance

4.4.1 Does regular absenteeism affect performance of students?

Of the respondents who were class teachers, majority 92% agreed that regular absenteeism from school affected performance of students’ while 8% disagreed. All the principals (100%) agreed that wastages impacted on the KCSE performance either negatively or positively This could be true because as the student is away regardless of the reason learning continues in the class. The student fails to complete the syllabus, hence the poor performance.
Table 4.9: Possible impact of absenteeism on performance

<table>
<thead>
<tr>
<th>Impact on performance</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>High achievement</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Poor grades</td>
<td>40</td>
<td>67</td>
</tr>
<tr>
<td>Promotion of teachers</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Early completion of syllabus</td>
<td>10</td>
<td>16</td>
</tr>
</tbody>
</table>

Majority of respondents (40) 67% indicated that absenteeism impacted on performance. It contributed to poor grades. Some (10) 16% of respondents said that it interfered with student-teacher contact hours early completion of syllabus is not possible thus impacting on performance, while (4) 7% indicated that it affects promotion of teachers, when students perform poorly, teachers fail to get promoted. When students are absent regardless of the reason, learning continues and the student misses out on certain aspect necessary for a particular level, hence content backlog that may lead to poor performance.

This implies that absenteeism could lead to loss of precious time that could have been used for instruction and early completion of syllabus for both students and teachers. This could lead to student performing poorly and might be forced to repeat, this could incur extra cost to the parent and the student could take more years to graduate which could also result to dropping out. This view is shared by Legotlo et. al. (2012) who asserts that repetition, failing to complete high school education within minimum time, social costs of secondary education increases without increasing social benefits.
4.4.2 How is the performance of those students who repeat classes?

![Pie chart showing performance of students who repeat classes]

**Figure 8:** Status of performance of students that repeat classes

On the status of performance of the students that repeat classes, majority of the class teacher respondents (41)69% indicated it was good while (19)31% disagreed indicating that it was bad. It implies that they advocate for repetition. This contravenes Brophy (2006) that repetition translated to large class size and additional facilities, Wastage of resources, social adjustment problem and likelihood of school dropout.

All the principals (100%) agreed that absenteeism by both teachers and students leads to loss of precious study time, this result to inadequate syllabus coverage hence poor performance with schools registering low mean standard scores. Students lose morale when a lot of work is covered while he’s away. This could result to indiscipline.

As far as repetition is concerned, the principals claimed that it enhances grade improvement and influences low achievers positively. It also leads to age maturity which leads to understanding and hard work, as well as building confidence in the student.
Education officers contended that repetition impacts on student performance both positively and negatively. Positively they claimed that the student improves on his grade. This contravenes Legotlo (2002) view that failing to complete high school education with minimum time, social cost of secondary education increases without increasing the social benefits.

Conversely, some principals felt that repetition makes the students feel psychologically not to belong, have low self-esteem, disinterested in learning. This could lead to declined performance. Also, learning the same thing for two years becomes monotonous hence the student ends up failing the exams or dropping out of school. Just like some principals, Education Officers felt that repetition involves the use of resources negatively, which could otherwise be used by other students. It could lead to students aging in school; this stigmatizes the student as he interacts with younger students. The repeater does not fit in class and might end up dropping out of school or becomes a bully. This might affect the performance of the entire class. This compliments Brophy’s (2006) view that repetition translates to large class size and additional facilities, wastage of resources, social adjustment problem and likelihood of dropout.

On impact of wastages on performance, the education officers acknowledged that dropout affects performance especially if the student that drops out is bright as this happens in cases of lack of school fees. This results to poor grades or lowers the mean standard score of the whole class.
4.4.3 Measures to curb repetition in secondary schools

The respondents suggested that students should be encouraged to ensure good performance. Teachers should create extra time with weakest student and advise them accordingly. They also suggested strictness while selecting form one’s in regard to entry marks. Teachers also advocated for extra tuition and encouraging students to be in school. The class teachers also suggested that no student should be allowed to repeat. This compliments the government policy of automatic progression between grades and automatic transfer between levels of basic education (GoK, 2012). Guidance and counseling was cited as measure to curb repetition, setting achievable targets and encouraging students to work towards achieving that target through extra work. Give incentives by rewarding those who perform and finally encouraging parents to pay school fees in good time.

4.5 Strategies to curb wastage in secondary schools

4.5.1 Suggest possible solutions to the wastages.

As per the poor academic performance in secondary schools in Kandara Sub County, respondents were of the opinion that students should be involved in group discussions, contests and counseling. Continuous Assessment Tests to be administered regularly to keep students abreast with class work, giving incentives, using motivational speakers, making schools child friendly and timely syllabus coverage.

There were divergent opinions on absenteeism from the respondents. The responses included: parents making arrangements on school fees payment in good time, cooperation between teachers and parents through regular meetings to deal with major causes of
absenteeism. Provision of Bursaries to assist the needy students. This compliments government policy on continued provision of resources for free and compulsory education (GoK 2012), donor funding to be sought by parents and teachers.

Respondents felt that repetition could be minimized by encouraging students to work hard to acquire better grades. There should be automatic promotion to the next class regardless of the grade attained. Motivating and rewarding good performance.

As for the dropout, respondents felt that the root cause should be addressed by creating pool of funds for needy students, asking for feedback from the affected parents, creating favorable learning environment through guidance and counseling for both parents and students and also having regular class academic meetings/clinics could curb dropout. From the interview, it was established that dropout impacted on student performance. Since the students have no chance of proceeding with their studies. They pointed out that while the student is out learning continues. There was a claim that dropouts contributed to poverty since the students dropping out could not secure jobs that would help alleviate poverty. It was also claimed that the student dropping out could have been another student’s best friend hence affect the others learning. When bright students dropout due to lack of school fees, it could lower the morale of the class thus lowering the mean standard score of the class. The research found out that dropout at whatever level resulted to poor syllabus coverage resulting to poor performance.

From the interview, the principals suggested the following solutions to minimize wastages; to minimize repetition through implementation of government policy on automatic promotion. This sentiment was also shared by the education officers. Other
measures included: Schools to set achievable targets, looking for sponsors for students lacking school fees, parents to ensure no student stay at home with no good reason, improving on the mode of fee payment/ installments, interacting with students positively, remedial teaching and students oriented on what is expected of them in terms of performance. To minimize dropout, the schools should engage guidance and counseling by professionals, motivational talks and career guidance. Award bursary to needy students, establish a brothers’ kitty and income generating activities to assist the needy students in fee payment. Endowment funds should be established to assist bright needy students in fee payment. This view was shared by education officers. The principals suggested that schools should uphold discipline among all learners.

Schools endangered by illicit cultures- Akorino and Mungiki to involve the local administration and children’s department in cases of early marriages. Guidance and counseling departments in schools should be handled by competent staff to minimize indiscipline, truancy, teen pregnancy, in cases of drug addiction; schools should rehabilitate students gradually through counseling psychology. The officers also acknowledged existence of fund raisers among teachers as well as individual schools to cater for the needy bright students whose exit would affect the over all grades.

In cases where dropout is caused by outlawed sects, the officers suggested that parents should be sensitized on the importance of education. These illicit cultures (Mungiki and Akorino) to be embraced in the community and be made aware that they also need education to fit into the changing world, whereas in extreme cases the local administration should force the sects to go to school.
The education officers reiterated that the ministry of education should liaise with the ministry of interior and coordination of national government to make follow up through chiefs who should act against parents keeping children at home. They also suggested that the ministry should conduct regular inspection/assessment through quality assurance and standards, also recommended guidance and counseling.
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter the results of the study were discussed and recommendations made thereafter.

5.2 Summary of the Findings

The study aimed at establishing the existence of wastages in secondary schools in Kandara Sub County and their impact on KCSE performance.

5.2.1 Types and causes of wastage

The research revealed that wastages existed in Kandara Sub County. The research established that poor performance was evident in Kandara Sub County as depicted by the dissatisfaction of majority of teachers and principals. This could also be attributed to the disproportionate workload distribution that was realized from the data collected from the schools.

The research established that absenteeism was the most common type of wastage as indicated by all categories of respondents. The study established diverse causes of absenteeism; lack of school fees was identified as the major cause, poor health and indiscipline were cited as other causes.

The study also revealed existence of repetition, this was acknowledged by majority of principals, class teachers and students. These respondents indicated that repetition was
caused by the need to better their grades and poor performance despite regular school attendance.

The study also found out that there were dropout cases in Secondary schools in Kandara. This was echoed by all education officers, principals, most class teachers and students. According to the respondents, the main reason for dropout was lack of school fees. Other reasons given were; expulsion/suspension, indiscipline, pregnancy and irregular school attendance.

5.2.2 Impact of wastages on performance

Of the respondents who were class teachers, majority 92% agreed that regular absenteeism from school negatively affected performance of students’ while 8% disagreed.

Majority of the respondents (40)67% indicated that poor grades was an impact on performance followed by (10)16% saying that early completion of the syllabus made an impact on performance. The least was promotion of teachers which was (4)7%.

On the status of performance on the students that repeat classes, majority of the respondents (41)69% indicated it was good while (19)31% disagreed indicating that it was bad.

5.2.3 Measures to curb wastage

Respondents were asked to give solutions to the wastages
As per the poor performance, most of the respondents (43) 75% class teachers Majority of the principals (16) 80% were of the opinion that students should be involved in group discussion, guidance and counseling, CATs to be administered regularly and timely syllabus coverage.

On absenteeism, all the respondents (60) 100% of the class teachers and (20) 100% of the principals suggested that timely fee payment and provision of bursaries could help retain students in school. As far as indiscipline is concerned, some (37) 26.5% echoed that alternative method of punishment should be applied instead of sending students home. They also suggested regular meetings with parents to discuss on root causes of absenteeism.

The research findings came up with the following solutions to minimize repetition: Most (21) 40% of the class teachers suggested that students should be encouraged to work hard to acquire better grades. Majority (17) 85% of the principals and 100% of education officers suggested promotion to the next class through implementation of government policy on automatic promotion.

To minimize dropout, most (10) 50% of the principals and 100% of the education officers felt that through guidance and counseling by professionals and engaging the ministry of Interior and Coordination of National Government through chiefs to act against parents keeping children at home. The research also found out that regular assessment through Quality Assurance and Standards unit could help rectify the situation as indicated by 100% education officers.
5.3 Conclusion

5.3.1 From the findings the following were arrived at:

Wastages in terms of absenteeism, repetition and dropout do exist in secondary schools in Kandara Sub County. From the research findings, absenteeism among students and teachers is the major type of wastage in secondary schools in Kandara Sub County. The research findings also found out that repetition is acknowledged in Secondary schools in Kandara Sub County from most respondents’ claim that repeaters record improved quality grade. The study established that dropout is experienced in secondary schools in Kandara mostly due to lack of school fees. The research findings came up with causes of wastages which included: lateness for both teachers and students, lack of school fees, poor health, indiscipline, family instability, peer influence, parental insistence on a child repeating, child labor, drugs and school related activities.

The research findings established that these wastages impacted negatively on KCSE performance in Kandara Sub County that posts low mean grades. Absenteeism contributed to poor grades and non completion of the syllabus, hence poor performance that may lead to repetition. The research findings revealed that repetition enhances better grades, contrary to views by scholars that repetition exerts pressure on resources and need for additional facilities.

The study came up with solutions to these wastages that included: group discussions, guidance and counseling, total syllabus coverage giving incentives and motivational speakers, setting achievable targets incorporating learning and teaching aid during
instruction. Remedial teaching and regular evaluation, use of peer teachers, creating endowment fund to assist needy students. The study found the need for proper intervention measure to these wastages hence the recommendations:

5.4 Recommendations

From the results of the study and conclusions, the following recommendations were made;

i. Group discussions among students, guidance and counseling and timely syllabus coverage by teachers and students could help curb the poor performance. Timely fee payment and provision of bursaries to the needy students could retain students in school whereas for indiscipline cases, alternative method of punishment could replace expulsion to minimize cases of absenteeism.

ii. Career guidance, remedial and Peer teaching, regular evaluation through CATs could motivate learners to improve on their grades, thus averting repetition hence dropout. and further impact of wastages

iii. There is need for cooperation between parents and teachers by maintaining close communication through meetings, there is need for feedback from affected parents and the need for creating favorable learning environment through guidance and counseling for both parents and students could help weed out wastages in schools.
5.5 Suggestions for Further Research

Based on the findings of the study, the following proposals have been put forward if the impact of wastages is to be mitigated

i. A study should be carried out on the impact of wastages on KCPE performance in Kandara Sub County and the neighborhood.

ii. A study to be carried out on effective mechanism to curb education wastage in the whole of Muranga County.

iii. A study should be carried out on the effect of teacher effectiveness and wastages in secondary schools in Murang’a County.
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APPENDICES

Appendix A: Questionnaire for Students

Please feel free to answer the questions to the best of your ability. All the information that you will give will be treated with utmost confidentiality and will be used for this study only. Do not write your name. Please answer all the questions in the spaces provided by placing a tick where appropriate

Part A

Gender (i) male (ii) female

ii) Age

iii) Class/Form

Part B

a) What are the types and causes of wastage in secondary schools in Kandara Sub-County, Murang’a County?

1) Are there cases when you are out of school? Yes ...............No .............

If yes, tick the possible reasons that made you to be absent
Lateness
Lack of school fees
Poor health
Indiscipline
Family instability

Other reasons specify..............................................................

a) When you come back do the teachers help you recover the lost time? Yes------- No

If yes, list the measures put in place ........ .............. ................. ........

……………………………………………………………………………………...

2) Have you ever repeated any of the classes? Yes ......No...........

If yes, tick the possible reasons for repetition

Poor performance
Transfer from another school-boarding to day school
Indiscipline
Irregular attendance
Poor health
Lack of fees
To acquire better grades

Others specify..............................................................
3) Are there students who have dropped out of your class since you joined form one?

Yes.........NO.....

If yes, tick the possible reasons.

- Lack of school fees
- Poor performance
- Disliked the school
- Indiscipline
- Poor heath
- Pregnancy
- Alcohol and drug abuse
- Early marriages

Other reasons, specify……………………………………………………………
Appendix B: Questionnaire for Class Teachers

Please feel free to answer the questions to the best of your ability. All the information that you will give will be treated with utmost confidentiality and will be used for this study only. Do not write your name. Please answer all the questions in the spaces provided by placing a tick where appropriate

Part A

1) Gender i. Male ii. Female

2) Status of school: national……… County……..Sub-County day, / boarding

Part B

a) What are the types and causes of wastage in secondary schools in Kandara Sub-County, Murang’a County?

4) Are you satisfied with the KCSE results of your school? Yes……No………..

5) How many lessons do you have per week? .........................

6) Are there instances when you fail to attend class? Yes……No……………….

   If yes, give possible reasons……………………………………

   ii) List down measures put in place to recover lost time………………………………? 

7) Are there instances when your students missed lessons? Yes………No………

   If yes, tick against the possible reasons
Indiscipline

Lack of fees

Peer influence

Parental insistence

Child labor

Others specify.................................................................

iii) What measures have you put in place to curb absenteeism?.................................

8) Were there students who repeated classes or joined your class on transfer as repeaters?
   Yes………………No………………

   ii) Below are some of the reasons why students repeat classes. Tick against possible reasons that made your students repeat

   Reason for repetition               Tick where appropriate

   Irregular attendance

   Poor performance

   To acquire better grades
Indiscipline

Lack of fees

Poor health

Expulsion or suspension

Others specify………………………………………………………………………………..

9) Did your class experience cases of dropout? Yes…………No…………

i) Below are reasons why students drop out of school. Tick against the possible reasons that made your students dropout

<table>
<thead>
<tr>
<th>Reason for dropout</th>
<th>Tick where appropriate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harsh teachers</td>
<td></td>
</tr>
<tr>
<td>Irregular school attendance</td>
<td></td>
</tr>
<tr>
<td>Peer influence</td>
<td></td>
</tr>
<tr>
<td>Poor health</td>
<td></td>
</tr>
<tr>
<td>Lack of fees</td>
<td></td>
</tr>
<tr>
<td>Parental negligence</td>
<td></td>
</tr>
</tbody>
</table>
Home responsibilities

Expulsion or suspension

pregnancy

Others specify…………………………………

iii) What measures have you put in place to curb dropout ………………………
……………………………………………………………………

b) Impact of wastage on performance in Secondary Schools in Kandara Sub-County

10) Does regular absenteeism affect the performance of your students? Yes……..No……

If yes, tick against the possible impact.

Impact on performance           Tick where appropriate

High achievement

Poor grades

Promotion of teachers

Early completion of syllabus

11) How is the performance of those students that repeat classes? Good……..Poor……..

If good/poor what measures have you put in place to curb repetition? ………………….
c) Strategies to curb wastages

12) Suggest possible solutions to these wastages……………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………
Appendix C: Interview schedule for Principal

1) What are the types of wastage in secondary schools in Kandara Sub-County, Murang’a County?

2) What are the causes of wastage in secondary schools in Kandara Sub-County?

3) What is the impact of wastages on KCSE performance in secondary schools in Kandara Sub-County?

4) What are the possible solutions to these wastages?)
Appendix D: Interview schedule for Education Officers.

1) What are the types of wastage in secondary schools in Kandara Sub-County, Murang’a County?

2) What are the causes of wastage in secondary schools in Kandara Sub-County?

3) What is the impact of wastages on KCSE performance in secondary schools in Kandara Sub-County?

4) What are the possible solutions to these wastages?
Appendix E: Consent letter

KENYATTA UNIVERSITY,

DEPARTMENT OF EDUCATION MANAGEMENT,

POLICY AND CURRICULUM STUDIES,

P.O BOX 43844,

NAIROBI.

Dear Sir/Madam,

RE: INVOLVEMENT TO YOUR INSTITUTE IN RESEARCH

I am a post graduate student at Kenyatta University. I am undertaking a research study in the field of educational planning. My research title is wastage rates and KCSE performance in secondary schools in Kenya: case of Kandara Sub County, Muranga County. You have been chosen to participate in this study. The questionnaire intends to find out the nature, causes and impact of wastages on performance, in an attempt to find solutions to the wastages.

Your cooperation in answering the questions will be highly appreciated.

Thank you in anticipation

Yours faithfully

WAHENYA H. WAMBUI
Appendix F: Research budget

<table>
<thead>
<tr>
<th>item</th>
<th>Description</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Proposal writing, stationary, computer, photocopies, printing</td>
<td>20,000</td>
</tr>
<tr>
<td>2.</td>
<td>Research instruments questionnaire – typing, interview schedule observation guideline</td>
<td>33,000</td>
</tr>
<tr>
<td>3.</td>
<td>Data collection</td>
<td>29,000</td>
</tr>
<tr>
<td>4.</td>
<td>Data analysis</td>
<td>35,000</td>
</tr>
<tr>
<td>5.</td>
<td>Miscellaneous</td>
<td>20,000</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>137,000</strong></td>
</tr>
</tbody>
</table>
Appendix G: Timeframe

1 Proposal Writing .......................... January-February

2 Data collection ............................. March

3 Data Analysis ............................... April

4 Final Draft writing ........................ May
Appendix H: Map Showing Location of Murang’aa County
Appendix I: Map of study area
Appendix J: Research Approval Letter

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke  P.O. Box 43844, 00100
Website: www.ku.ac.ke  NAIROBI, KENYA
Internal Memo  Tel. 810901 Ext. 57530

FROM: Dean, Graduate School  DATE: 11th April, 2014

TO:  Ms. Waihenya H. Warnbui
     C/o Educational Mngt.
     Kenyatta University

SUBJECT: APPROVAL OF RESEARCH PROPOSAL

This is to inform you that Graduate School Board at its meeting of 27th March, 2014 approved your Research Proposal for the M.Ed. Degree entitled “Impact of Wastage Rate on KCSE Performance in Secondary Schools in Kenya, A Case of Kandara Sub Country, Muranga County”.

You may now proceed with your data collection.

Thank you,

REUBEN MURIUKI
FOR: DEAN, GRADUATE SCHOOL


Supervisors:

1. Dr. N. Ogeta
   KENYATTA UNIVERSITY

2. Dr. Thaddaeus T. Kugar
   KENYATTA UNIVERSITY

RB/cuo

Committed to Creativity, Excellence & Self-Reliance
Appendix K: Research Authorization Letter

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke
OUR REF: E55/20315/12

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57880
Date: 11th April, 2014

The Permanent Secretary,
Ministry of Higher Education, Science & Technology,
P.O. Box 30040,
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR MS. WAIHENYA H. WAMBUI REG. NO. E55/20315/12

I write to introduce Ms. Wambui who is a Postgraduate Student of this University. She is registered for M.Ed. Degree programme in the Department of Educational Management, Policy & Curriculum Studies in the School of Education.

Ms. Wambui intends to conduct research for a proposal entitled, Impact of Wastage Rate on KCSE Performance in Secondary Schools in Kenya, A Case of Kandara Sub Country, Muranga County”.

Any assistance given will be highly appreciated.

Yours faithfully,

MRS. LUCY M. MBAABU
FOR: DEAN, GRADUATE SCHOOL

JK/cao

Committed to Creativity, Excellence & Self-Reliance
Appendix L: Research Permit

THIS IS TO CERTIFY THAT:

MISS. HABIBAH WAMBIA WAHINENYA OF KENYATT UNIVERSITY, 63, 1034 KANDARA, has been permitted to conduct research in Muranga County on the topic: IMPACT OF WASTAGE RATES ON KCSE PERFORMANCE IN SECONDARY SCHOOLS IN KENYA, A CASE OF KANDARA SUB-COUNTY for the period ending 31st July, 2014.

Applicant’s Signature

Secretary

Republic of Kenya

National Commission for Science, Technology and Innovation

CONDITIONS

1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do so may lead to the cancellation of your permit.

2. Government Officers will not be interviewed without prior appointment.

3. No questionnaire will be used unless it has been approved.

4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.

5. You are required to submit at least two (2) hard copies and one (1) soft copy of your final report.

6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice.

RESEARCH CLEARANCE PERMIT

Serial No. 1665

CONDITIONS: see back page
Appendix M: Bank slip

KCB

CREDIT ADVICE
CASH DEPOSIT

KCB TRIKA
Account AT KCB KIPLUNK HOUSE

Date: 14/04/2014

ACCOUNT DETAILS
A/C No: 1104187447
A/C B/R: 0005241570364
NAT CHEK FOR SCT (Tech and Innov)
Current Account-Corp Inst. Bankin-

1,000.00 KES

We have credited your above account with:

Kenya Shillings ONE THOUSAND ONLY

Cash Paid In By: MAHEKENA WAMBU

Signature: .........................

Transaction Number: TT141047MD12 At 18:43:42 On 14/04/2014

Thank you for banking with us. You were served by: COSMAS MUNO MUTINDA

*** Advice not valid unless Transaction Number is shown ***