INFLUENCE OF SELECTED FACTORS ON EDUCATIONAL WASTAGE IN PUBLIC SECONDARY SCHOOLS IN MBOONI WEST SUB-COUNTY, MAKUENI COUNTY, KENYA

ANNE NTHANGU ANTHONY

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DECLARATION

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

....

Anne .N. Anthony **Date**

Reg. No. E55-7128-2015

This research project has been submitted for examination with our approval as University supervisors

....

Dr. Kimiti Richard Peter **Date**

Department of Educational Management and Curriculum Studies,

Machakos University.

....

Professor Robert Arasa **Date**

Department of Business Administration

Machakos University

DEDICATION

I gratefully dedicate this work to my husband Cyrus Kitheka and our children Donald, Lennard and Benjamin.

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ABBREVIATIONS AND ACRONYMS

AIDS:	Acquired Immune deficiency Syndrome
ASAL:	Arid and Semi-arid Land
EU:	European Union
ESL:	Early School Leaving
FDSE:	Free Day Secondary Education
FPE:	Free Primary Education
GER:	Gross Enrolment Rate
HIV:	Human Immunodeficiency Virus
IEC:	Internal Efficiency Coefficient
K.C.S.E:	Kenya Certificate of Secondary Education
M.O.E:	Ministry of Education
MOEST:	Ministry of Education Science and Technology
NACOSTI:	National Commission for Science, Technology and Innovation
NCPD:	National Council for Population and Development
R.O.K:	Republic of Kenya
SPSS:	Statistical Package for Social Sciences
UNESCO:	United Nations Educational, Scientific and Cultural Organization
UNICEF:	United Nations Children's Fund

ABSTRACT

The Government of Kenya invests immensely every year in the education sector to provide the appropriate training to its citizens. This is geared towards developing her human capital which is very crucial for nation building. Despite the Government's high expenditure in financing secondary education, it continues to lose money through wastage in education which manifests through dropouts, repetition and poor academic performance. This connotes internal inefficiency in the education system. The purpose of this study was to investigate the influence of selected factors on educational wastage in public secondary schools in Mbooni West Sub County, Makueni County. The study was guided by the following objectives; to determine the socio-economic factors that influence educational wastage, to establish the influence of student based characteristics on educational wastage, to examine the school based factors that influence educational wastage and to establish the community based factors that influence educational wastage in public secondary schools in Mbooni West Sub County. Descriptive survey design was adopted in the study. The target population was 41 public secondary schools from which 15 schools were selected through stratified random sampling. From the sampled schools 15 principals and 15 academic deans were purposively sampled while simple random sampling was used to select 15 form three class teachers giving a total of 45 respondents. Data was collected using questionnaires and document analysis. Quantitative data was analysed through descriptive statistics using SPSS and presented through tables, graphs, pie charts, frequencies and percentages. Qualitative data was analysed through content analysis. From the study it was established that poor academic performance as a nature of wastage in public secondary schools was high in Mbooni West Sub County, repetition happens more in form four after K.C.S.E as students seek to improve their grades and dropout also existed. The study also established that socio-economic, student based characteristics and community based factors influence educational wastage in public secondary schools in Mbooni West Sub County. Further, the study revealed that school based factors did not influence educational wastage in public secondary schools in Mbooni West Sub County. The researcher recommends that public secondary schools management in Mbooni West Sub County be sensitized on educational wastage to improve efficiency and guidance and counseling to be strengthened to curb wastage.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Education is considered the root to economic prosperity, the key to scientific and technological advancement, the means to combat unemployment, the foundation of social equality, equal wealth distribution and the spearhead of political socialization and cultural diversity (Psacharopolous, 1998). Investment in education is therefore a key element of the development process of any nation. Due to this many nations invest immensely in their education sector to provide the appropriate training to their citizens.

There has been a widespread belief among educational economists according to Ojiambo (2009) that educational development would lead to accelerated economic growth, more wealth and income distribution, greater equality of opportunity, availability of skilled human power, a decline in population growth, long life, better health outcomes, low crime rates, national unity and political stability. This belief has made many individuals and nations invest immensely in education. Expounding further on this belief, Ojiambo (2009) argues that the wealth of nations depend on their capacity to develop their human resources and not so much on their physical resources. He says that a country which is unable to develop skills and knowledge of its people and to utilize them efficiently in the national economy will be unable to develop anything else.

The provision of education and training in any country is therefore vital for the development of her human capital which is crucial for nation building. Nations therefore are constantly trying to address the many challenges that face the education sector which include among others issues of access, quality, equity, inefficiency, cost and financing

which manifest themselves in form of wastage in the education sector. Thus educators are mandated to plan and try to govern their student intakes and outputs to ensure efficiency and avoid any wastage (MOE, 2005).

According to Klein (2011) internal efficiency is the amount of learning achieved during the school age attendance compared to the resources availed to support education. Effectively, it measures the performance of the education system as indicated by students successfully transiting from one level to another through the education system without wastage. Wastage as explained by Hornby (2001) means the act of losing or destroying something, especially when it has been used or dealt with carelessly. Hence wastage in education connotes inefficiency in the use of educational resources by school administrators. In other words, poor relationship of educational inputs with outputs is wastage. Educational output invariably determines shape of the national development.

Developing countries are faced by many challenges such as poverty, unemployment, corruption and violence. These challenges are related to educational wastage because the cost of living in developing countries is high. There are sharp disparities between socio-economic classes, gender, geographical regions and generations, resulting to inequality, low access and non-participation of some individuals (UNESCO, 2005).

Achoka (2007) also explains that there is a problem of high repetition and low progression rate which could be affected by school size, school regime, school type, inability to pay school fees, HIV/AIDS pandemic, violence and drug abuse. Ncube (2004) in a study in Zimbabwe found that the number of students repeating a grade increases with level of schooling. Ncube (2004) noted that, of the 2527 repeaters over a

period of four years, 5.7% were in form one, 7.6% in form two, 30.2% in form three and 56.5% in form four.

In Kenya, education is a basic human right which facilitates the acquisition of knowledge, skills and attitudes that are necessary for quality of life for an individual, family and community and plays a key role in improving productivity hence contributing to national development. Education is therefore a critical tool in the achievement of Kenya's vision 2030. The goal of the Vision 2030 is to transform the country into a globally competitive and a prosperous nation. The vision is founded on the social, economic and political pillars. Within the social pillar, education sector plays a critical role in facilitating the process of inculcating knowledge, attitudes and skills necessary for catapulting Kenya to a globally competitive country and acquiring new knowledge in a systematic way with a view to improving products and processes. The sector therefore has a major responsibility of facilitating the process of developing manpower necessary for transforming Kenya into a globally competitive country (Republic of Kenya, 2014).

Mogambi (2018) also argues that the Social Pillar in Vision 2030 singles out education and training as the vehicle that will drive Kenya into becoming a middle-income economy. The fact that President Uhuru Kenyatta's administration has also prioritized the big four agenda, that is, manufacturing, housing, food security and universal health care as its core pillars makes this more strategic. One of the critical issues that have bedeviled the education sector in Kenya has been ensuring total access across the board where the 2017 Economic survey shows that secondary schools total enrollment rose by 6.3 per cent to 2.7 million in 2016. This implies that the introduction of free day public secondary schooling in Kenya has ushered in a new era. The bold step will help improve on

transition rates to a near 100 per cent and deal with perennial issues of wastage and dropout in the education system.

The government has therefore over the years invested heavily in education with the aim to have a globally competitive and prosperous country with high quality life by the year 2030 and transform the country to an industrializing, middle-income country providing a high quality of life to all its citizens in a clean and secure environment. However, like many other nations, Kenya's education sector experiences numerous challenges which among others include issues of access, quality, equity, inefficiency, cost and financing which manifest themselves inform of wastage.

According to Ajayi &Mbah (2008) wastage arising from repetition and drop out is a sign of internal inefficiency in the education system. Gatawa (1998) also argues that while developing countries have done remarkably well in terms of expanding educational access to a large percentage of their school going population, school performance measured by dropout rates, progression rates and examination results has been quite discouraging. A report on the internal efficiency indicators of secondary education in Kenya reveals that the problem of repetition and dropout still persists.

Table 1.1: Internal Efficiency Indicators of Secondary Education For 2014

	Promotion Rates			Repetition Rates			Dropout rates		
Class	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Form 1	97.6%	104.3%	1oo.7%	0.7%	0.5%	0.6%	1.7%	-4.8%	-1.3%
Form 2	98.6%	101.2%	99.8%	1.4%	1.1%	1.2%	0.0%	-2.2%	-1.0%
Form 3	88.9%	91.6%	90%	2.7%	1.9%	2.3%	8.4%	6.5%	7.5%
Form 4	N/A	N/A	N/A	4.1	2.2%	3.2%	N/A	N/A	N/A

Source: Ministry of Education, Science and Technology (2014).

At secondary level, promotion rates are relatively high with form one recording the highest and form three the lowest (100.7% and 90.1% respectively). Girls recorded better promotion rates than boys in all the classes. The promotion rates above 100% are attributed to re-entry policy for girls at form one and two.

The repetition rates range between 0.6% and 3.2% with form four recording the highest while form one recoded the lowest. Male students remain more vulnerable to drop out across all classes of secondary schools compared to the female counterparts. The data shows negative dropout rates for girls in form one and two implying that the number of students re-joining the system having left at some point is greater than the number exiting in 2014.In Makueni County, school dropout is linked to poverty or lack of school fees,

drug and substance abuse and teenage pregnancy for both primary and secondary schools (NCPD, 2017).

Table 1.2: Main Education Issues in Makueni County.

Main education issue	causes	consequences	Ways of addressing the problem
Drug and substance abuse School dropout Child labour Teenage pregnancy	poverty Peer pressure Lack of Knowledge Negative cultural practices	School dropout Poor academic results and performance	Provision of bursaries Guidance and counselling Law enforcement on drug and substance abuse

Source: Analysis of NAYS data, 2015.

From this research, discussion with the youth in Makueni County identified drug and substance abuse, school dropout, child labour and teenage pregnancy as the main education issues affecting the youth in the County. These education issues were attributed to poverty, peer pressure, lack of knowledge and negative cultural practices. The enrolment trend in Mbooni West Sub-County in Makueni County also reveals that educational wastage occurs in the Sub County.

Table1.3: Enrolment Trend in Mbooni West Sub-County by Gender for 2014-2017 Cohort.

Enrolment	Boys	Girls	Total
Form 1 (2014)	1668	1677	3345
Form 2 (2015)	1519	1599	3118
Form3 (2016)	1457	1560	3017
Form4 (2017)	1396	1446	2842

Source: M.O.E, Mbooni West Sub-County (2018).

From the table, Mbooni West Sub-County enrolment trend for 2014-2017 cohort reveals that the number of students that completed Form Four in 2017 was less than that enrolled in Form One in 2014. There was a significant loss at every level with the highest number being registered in form two. This is an indication of wastage which could be due to repetition or dropout.

Solving the problem of wastage in education requires an understanding of the factors that contribute to the wastage and the impact of each factor. This study therefore, will seek to examine the factors that influence educational wastage in public secondary schools in Mbooni West Sub-County.

1.2 Statement of the Problem

It is clear from the background of the study that Kenya's education sector faces the challenge of educational wastage which manifests itself through repetition, dropout and

non-enrolment. Muyanga (2010) also notes that the Kenyan education system has been characterized by high dropout, repetition and poor academic performance which lead to educational wastage.

The Government through the Ministry of Education, Science and Technology (MOEST) spends an enormous amount of money in financing education. For instance, to achieve the goal of 100% transition from primary school to secondary school from the current estimated level of 75%, the government disbursed Ksh. 29.5 billion to public secondary schools in January 2018. The government grant of Ksh. 12,870 per secondary school student has been increased to Ksh. 22,244 as proposed by a task force in 2015 to help support the expected increase in admissions (Nyamori, 2018). Despite the Government's high expenditure in financing secondary education, it continues to lose money through wastage in education. This thwarts the governments' efforts to achieve internal efficiency in the education system.

The enrolment trend in Mbooni West Sub-County for the 2014-2017 cohort reveals that out of the 3345 students enrolled in Form one in 2014, only 2842 completed Form four in 2017. There was a significant loss at every level translating to 15% loss at the end of the four year period. This is an indication of wastage which could be due to repetition or dropout. Studies such as this have been done in many counties in Kenya on the factors that influence educational wastage in public secondary schools. However, there is no proof that any study has been done in Mbooni West Sub-County on factors that influence educational wastage in the public secondary schools. This study therefore sought to establish the factors that influence educational wastage in public secondary schools in Mbooni West Sub-County.

1.3Purpose of the Study

The purpose of this study was to investigate the influence of selected factors on educational wastage in public secondary schools in Mbooni West Sub-County, Makueni County.

1.4 Objectives of the Study

The study sought to address the following specific objectives.

i. To determine how socio-economic factors influence educational wastage in Mbooni West Sub-County.
ii. To establish the influence of student based characteristics on educational wastage in Mbooni West Sub-County.
iii. To examine the school based factors that contribute to educational wastage in Mbooni West Sub-County.
iv. To establish the community based factors that lead to educational wastage in Mbooni West Sub-County.

1.5 Research Questions

i. What are the effects of socio-economic factors on educational wastage in public secondary schools?
ii. What is the relationship between students' characteristics and educational wastage in public secondary schools?
iii. What are the effects of school based factors on educational wastage in public secondary schools?

iv. What is the relationship between community-based factors and educational wastage in Public secondary schools?

1.6 Significance of the Study

Provision of education is an enormous investment for any nation. Schools are expected to utilize resources in a manner that promotes internal efficiency. However, this is not the case because there is a lot of wastage ranging from dropout, repetition of grades, non-enrolment and poor academic performance. This study may therefore be significant to the Ministry of Education, Makueni County education leaders and specifically Mbooni West Sub-County education stakeholders. The results of this study may help them realize the factors that influence educational wastage in the sub-county hence develop strategies that will help reduce or alleviate wastage in the public secondary schools in this area. The findings of this study may also be used by the Government of Kenya particularly the Ministry of Education to improve the existing policies or develop new strategies that will help to curb wastage in the education system in order to promote internal efficiency of the system. The findings of this study may also add to the existing literature and knowledge of educational wastage in other counties in Kenya and become a useful reference to academicians' in future educational research.

1.7 Limitations of the Study

The researcher faced various challenges during the study. The first challenge was scanty data on educational wastage from the Sub County Education Office. The office lacked reliable data on dropouts and the researcher sought to gather this from the respondents during the study. Another challenge was securing time for the busy employees to respond to the questionnaire. To handle this, the researcher made prior arrangement with the

respondents to avail themselves. Also, the challenge of suspicion and negative attitude due to fear of victimization was evident. The researcher assured the respondents that confidentiality will be upheld and the information given was only for research purpose. Some schools within the area of study were inaccessible making it necessary for the researcher to use motor bikes as an alternative means of transport.

1.8 Delimitations of the Study

The study confined itself to 2014-2017 cohort and investigated wastage in public secondary schools only in Mbooni West Sub-County. The 2014-2017 cohort provided the most current scenario of educational wastage in Mbooni West Sub-County. Education wastage has several indicators which include enrolment, retention, completion, dropout and repetition rates. This study focused on only two indicators, that is, dropout and repetition. The study also targeted principals, academic deans or senior teachers and form three class teachers, in public secondary schools only. The study also focused on only four factors namely; socio-economic, student based, school based and community based factors.

1.9 Assumptions of the Study

The study assumed that; all the public secondary schools in the sample experienced wastage in the years 2014-2017; accurate and up-to-date student's records were available at the school administration and all the respondents gave reliable responses.

1.10 Theoretical Framework

This study was anchored on the education production theory as revealed in the works of Psacharopoulos and Woodhall (1985). This theory takes education institutions as production units and examines the relationship between inputs and outputs in the education system. It looks at education as a cumulative process and postulates that the outputs of the education process and achievement of the students are directly related to inputs. It relates to various inputs affecting student learning for instance schools, families, peers, neighborhoods amongst others to measured outputs such as labour market success, college attendance and graduation rates.

The education production function includes inputs, the process and the output. Just like an industry, a school system receives raw materials which go through a process to finally give outputs. The inputs include teachers' qualification, teacher pupil ratio, learning materials, class size, laboratory equipment, school's physical plants, administration and innate endowments or learning capacities of the students. Family backgrounds characterized by socio-economic characteristics such as family income, parental education and family size typically affect a students' achievement. Nelson (2013) notes that education is a production process using scarce human, financial and physical resources in the production of educated persons. Since those resources have alternative uses economic theory can be applied to its operations and planning. Thus in resource allocation at the macro and micro level efficiency should be deliberately pursued to enable the maximization of the consumption and investment objectives of education.

John (2010) explains that education has a high priority function in the production of human resources since human capital is the key factor in the development of people.

Economists put attention in the way in which the education institutions select the entrances and the way in which they use the specific inputs to obtain a certain product. The education process can be assimilated to the productive process of any good or service. There are factors and inputs that combined in different ways, give rise to different amounts and qualities of a final product. The learning process as a productive process has particular characteristics and limitations that are necessary to be considered as much as the definition of the finished product.

A function of production in education consists of the relationship between the amount of entrances and the quality of exits rendered by the productive process. In the inputs used the characteristics of the student, of the family, the socio-cultural context are clear like also of the school inputs: the teachers, building infrastructure, school organization and technological equipment. Contributions by educators suggest that school profitability depends on a series of factors; genetic, socio-economic, teacher quality, school conditions and the characteristics of the group of students. Just like an industry, the school system has factors that affect the process of changing inputs to outputs.

In this theory if all variables were treated the same the output of any firm would be 100% with all factors taken to consideration. However, factors in the process affect the output and cause it to fall below the expected results. This can be represented as C= F (B1, B2, B3……BN) where C= Completion; B1, B2, B3……BN=inputs and F=Production Function Process. Thus, the completion depends on the factors that act on the inputs during the process.

1.11 Conceptual Framework

Independent Variables

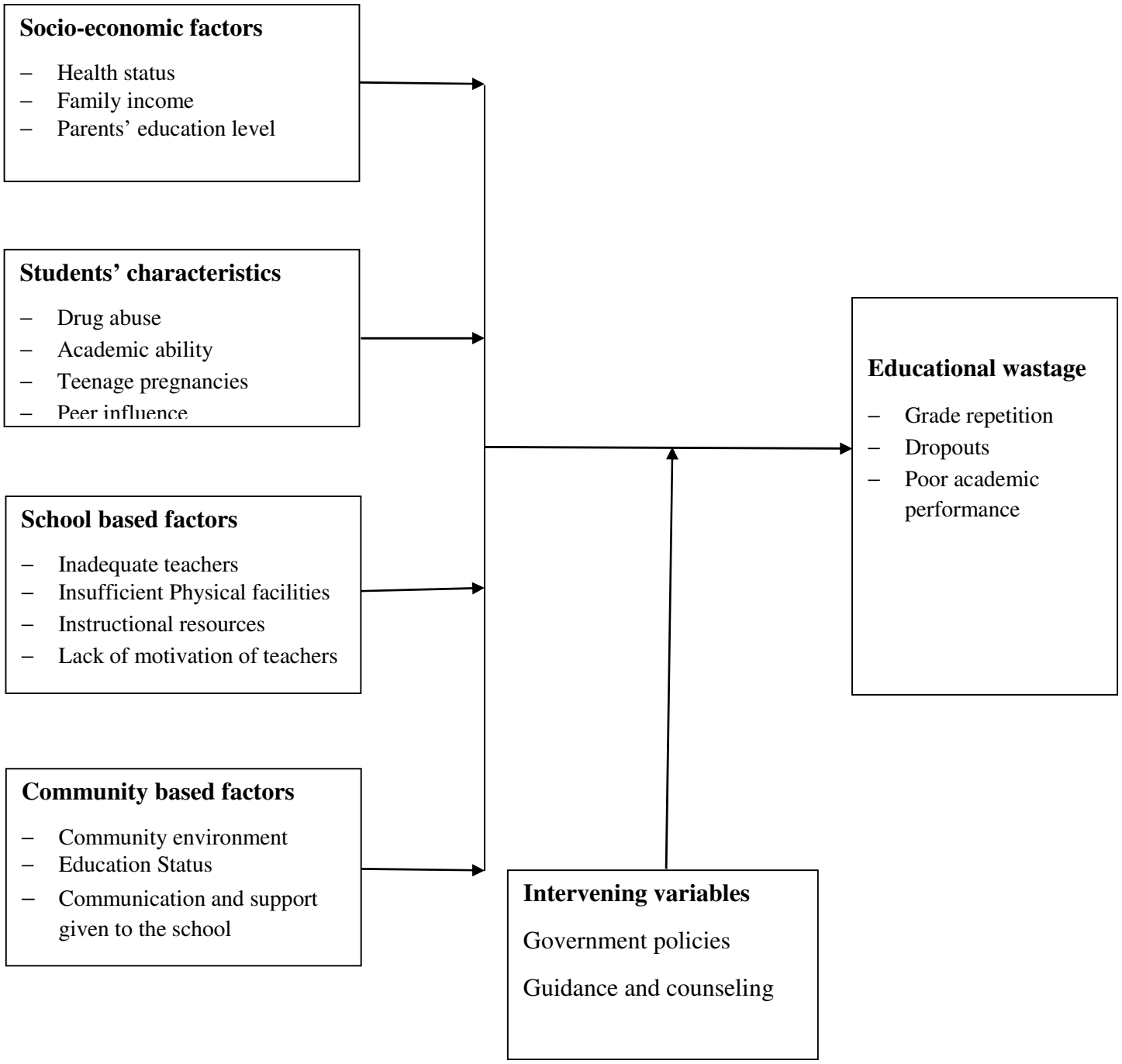

Figure 1.1:Conceptual Framework

Source: Researcher (2018)

The dependent variable in this study is educational wastage in public secondary schools. Educational wastage in public secondary schools is caused by many factors that constitute the independent variables. The independent variables in the conceptual framework are socio-economic factors such as family income, parental level of education and health status. Student based characteristics include drug abuse, academic ability, teenage pregnancy and peer influence. School based characteristics under study are inadequate teachers, insufficient physical resources, instructional resources and lack of motivation for teachers. Community based factors under study are community environment, education status of the community and communication and support given to the school by the community. The intervening variables intervene between cause and effect and are guidance and counseling and government policies.

The factors that influence educational wastage in secondary schools based on the literature review include socio-economic factors such as family income, health status and parental level of education; student related factors such as academic ability or performance, drug abuse, teenage pregnancies and peer influence; school based factors such as insufficient instructional resources, inadequate teachers, lack of motivation of teachers and insufficient physical facilities and community based factors such as community environment, educational status of the community and communication and support given to the school by the community.

1.12 Operational definition of terms

Cohort: Students who joined school together at a particular grade.

Community based factors: These are facilities and practices within a community that can impact on a learner either positively or negatively. They include community environment, education status and communication and support given to the school.

Drop out: A student who leaves school prematurely before completing the secondary school cycle.

Dropout rate: The proportion of the students of a given cohort or grade that does not complete secondary school. Dropout rate is calculated by dividing the number of dropouts in each grade within a given year by the number of students in that grade multiplied by 100.

Efficiency: Level of performance that describes a process that uses the lowest amount of inputs to create the greatest amount of outputs.

Educational wastage: A measure of internal efficiency which manifests itself through drop outs and repetition.

Grade: The educational level a student has attained.

Public school: A type of school that is developed and maintained by public funds obtained from the government, parents and/ or community.

Repetition: Remaining in the same class for more than one year.

Repeater: A student who repeats a grade in a school in a given year.

School-based factors: Aspects of a school that can influence a learner's learning process either positively or negatively. They include educational policies, syllabus coverage,

principals' leadership style, teaching and learning resources and teacher attitude towards learners as well as a learner's attitude towards teachers.

Secondary school: An institution where students receive formal education as stipulated in the secondary school curriculum.

Socio-economic factors: The social and economic factors within a learners' family environment that impact on his or her education. They include family income level, family size, physical facilities, sibling educational attainment and educational attainment of parents.

Student-based characteristics: A number of individual learner traits that can lead to poor academic performance, repetition and dropping out of school. These range from low self-esteem, academic ability, absenteeism, indiscipline, age of the student, teenage pregnancies, drug abuse and peer pressure.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature related to wastage in education through non-enrolment, dropout and repetition. It also covers the meaning of educational wastage, causes, wastage in developed countries, wastage in developing countries and the factors that influence educational wastage.

2.2 Meaning of Educational Wastage

According to Hornby (2001), wastage means the act of losing or destroying something, especially when it has been used or dealt with carelessly. Hence wastage in education connotes inefficiency in the use of educational resources by school administrators. In other words, poor relationship of educational inputs with outputs is wastage. Educational output invariably determines shape of the national development.

Education wastage creates negative performance or outcomes. Obviously, education wastage is clearly seen in the following negative attitudes: students' drop-out; carry-over of courses because of students' inability to perform as expected, hence failure to achieve; unemployment for graduates; employment without success in the area of work; brain-drain and poor utilization of educational resources such as personnel, time, physical, material and financial resources among others (Hornby, 2001).

2.3 Causes of Educational Wastage

According to Salawu (2006), causes of education wastage are grouped into three namely; the nature of educational inputs, the nature of processing and the nature of outputs. The causes of education wastage due to the nature of educational inputs include the nature and

ability of students, the nature and types of educational resources, the goals of the educational system and the nature of the content (curriculum).

Based on the nature and ability of students, one aspect of manifestation is drop-out. There are cases of dropouts in primary schools, secondary schools and higher institutions. The main reasons for drop-outs are ill-health and death, truancy, financial difficulty or poverty. Sometimes students fall sick during their academic life and the ill-health may be serious that they die or cannot continue with their education. Some students also enroll into school but habitually absent themselves from school. Others face financial problems due to the socio-economic background of their parents or guardians. There are also students who have learning difficulties and find it difficult to grasp what is taught. These students may end up spending more years in school than their counterparts (Salawu, 2006)

The nature and type of educational resources include teachers, equipment and the facilities available for education. Many schools lack sufficient equipment for practice in science subjects. Schools also face the challenge of inadequate teaching personnel. The nature of the goals of the educational system is also another cause of educational wastage. Where goals of the educational system are practical-oriented and practically implemented, the products are gainfully employed on graduation. In practice, most often, emphasis is laid on literacy and general education, thus, most of the products become unemployed (Salawu, 2006).

The nature of the content of the curriculum could also be a cause of education wastage. Salawu (2006) argues that in a situation where the content of the curriculum consists of English language, History, Christian or Islamic Religious Knowledge, Music, Geography,

Igbo language and French, the product of that school may graduate without any type of hope especially in this era of practical and science-oriented education. In Nigeria, today, masons, mechanics, electricians, welders are in short supply, yet, there is unemployment being observed with respect to many graduates of Nigerian higher education. The reason for this situation is not far-fetched. There is scarcity of skilled labour because the Nigerian education system scarcely emphasizes vocational and technical skills because there are no relevant resources to that effect due to education wastage, hence poor quality of education.

Concerning education wastage due to the nature of processing, Salawu (2006) explains that the causes of education wastage could be process-based; for instance in administration or management, examination or certificate system. The nature of administration or management of the school system could be faulty in the sense that the administrator may be autocratic or high-handed. It could be that the administrator may be ignorant of the work to do. It could also be a non-challant administrator, who allows everything to go its own way without making any effort to put things right. Education wastage could be caused by the nature of the examination system where emphasis is laid on one-shot examination instead of continuous assessment. Sometimes, education at this level is not related to the overall societal needs; also modern educational techniques to encourage acquisition of relevant knowledge and skills are not used in the process of teaching and learning.

The nature of the outputs could also cause education wastage. It could be that the graduates from the educational system do not possess the required skills due to the fact that the higher institution did not conform to the initial objectives hence, the graduates

find it difficult to fit into the world of work. Somebody who studied literacy subjects, for instance, may not fit in very well in a computer-literate society of today.

Frequent strikes by the teachers disrupting academic activities can cause education wastage because some students drop out of school when not being taught. Some of these drop-outs often times end up as touts in one organization or the other or even waste their lives as criminals, drug addicts or thieves.

2.4 Educational Wastage in Developed Countries

Many nations in the world face the challenge of educational wastage including those termed as developed countries. In the US, for instance, the high school dropout rate is alarming. In 2007-2008, the California Department of Education estimated that 98,420 public high school students dropped out of school (David & Jeffrey, 2010). This data suggests that about 19 percent of California high school students in any ninth-grade class will drop out over a four-year period. Further, the dropout rate is particularly acute among the state‘s largest minority student populations. An estimated 33 percent of African Americans and 24 percent of Hispanics will drop out over a four-year period (David & Jeffrey, 2010).

In Europe, according to the studies conducted by the Commission Staff Working Party (2010), the Education Council set itself in 2003 a benchmark to reduce the European Union (EU) average rate of Early School Leaving (ESL) to not more than 10% by 2010. In 2009, the ESL rate stood at 14.4%, 18% reduction compared to the year 2006. With a drop of 3.2% points in nine years, progress had been significant: the number of early school leavers had been reduced by almost 1.5 million. Nevertheless, progress had been insufficient to reach the 10% target by 2010. The Council therefore, renewed its

commitment to the 10% benchmark with a new target date of 2020. To reach this target, the reduction rate of ESL needs to accelerate significantly.

Early school leaving is a failure to complete upper secondary school, a failure to complete compulsory schooling or a failure to gain qualifications or school leaving certificate (Commission Staff Working Party, 2010). At EU level ESL rates are defined by the proportion of the population aged 18-24 with only lower secondary education or less and no longer in education or training. Early school leavers are therefore those who have only achieved pre-primary, primary, lower secondary or a short upper secondary education of less than 2 years and include those who have only a pre-vocational or vocational education which did not lead to an upper secondary certification. Early school leaving has been increasingly recognized as one of the main challenges faced by European societies (Commission Staff Working Party, 2010). For the majority of young people, leaving education and training prematurely is both a result of educational, psychological and social problems and a cause of continuous social insecurity. European education and training systems lose hundreds of thousands of young people each year who are then equipped with inadequate skills for later life. However, reducing ESL to less than 10% by 2020 is a headline target for achieving a number of key objectives in the Europe 2020 strategy. The study further reveals that over 70% of early school leavers in the EU complete only lower secondary education. A very worrying fact is that 18% of early leavers in EU have completed only primary education and this trend is especially strong in Bulgaria 38% and Portugal 40%.

2.5 Educational Wastage in Developing Countries

Developing countries face numerous challenges which include low quality education, unemployment, poverty and educational wastage amongst others. For instance, in Malawi, access to secondary education is almost universal but the drop-out is very high. The retention rate within the secondary cycle improved from 23 per cent in 2004 to 32 per cent in 2007 but largely insufficient. Generally, internal efficiency coefficient (IEC) at the secondary level is particularly low (35%) which implies that 65% of the public resources are wasted in paying for repeated grades or schooling for students who drop out before cycle completion (Lewin &Caillods, 1999).

In Kenya, there has been an escalating enrolment in both primary and secondary schools as result of the FPE and FDSE policy. For instance, the total enrolment in primary increased to 10.2m in 2013 and that of secondary school to 2.10m in 2013. This has led to increased number of schools (Economic Survey, 2013). However, despite all these efforts from the government, wastage still remains a great challenge in Kenya. The drop-out in primary schools has been as high as 37% and repetition rate at 14% between class one and seven, the survival rate has been low at 40%, although at the secondary level the survival rate has been better at 84%, the overall performance remains low considering the Gross Enrolment Rate (GER) for secondary school is 31.7% for boys and 27.3% for girls (MOEST, 2010)**.**

2.6 Factors influencing Educational Wastage

2.6.1 Socio-economic factors

Socio-economic status is a major factor in family background that is strongly related to dropping out of school. Numerous studies have shown that students from low income

families are more likely to drop out of school than those from middle or upper income families. Particular family related factors associated with dropping out include low educational and occupational attainment levels of parents, single-parent families and the absence of learning materials and opportunities in the home (Ekstrom et al, 1986).

This is further explained by the fact that research has consistently found that socio-economic status, most commonly measured by parental education and income, is a powerful predictor of school achievement and dropout behavior (Rumberger &Larson, 1998; Pong &Ju, 2000). High parental income makes it convenient to provide more resources to support children's education, including access to better quality schools, private tuitions and more support for learning within home. UNICEF (2007) also observed in a research carried out in fifty five countries that if educated women become mothers, they are likely to send their children to school, thereby passing on and multiplying the benefits both to themselves and the community at large. This shows that educated parents will find education more meaningful and therefore strive to educate their children. But parents with low education level and poor are not well involved in community and school activities because of poverty therefore their children drop out from school earlier than their counterparts of educated parents.

Poverty still remains as one of the significant causes of children dropping out of school (Birdsall et al, 2005; Brown & Park, 2002; Bruneforth, 2006; Cardoso &Verner, 2007; Dachi &Garrett, 2003; Hunter & May, 2003).UNICEF (2007) argues that low socio-economic status which include poverty and the fiscal crises which force families to cover shortfalls have a devastating impact on households and the education system as far as children education is concerned. Wang (2010) also mentioned poverty as a contributing

factor of children's dropout in rural areas of China. Children from better off households are more likely to remain in school, whilst those who are poorer are more likely never to have attended, or to drop out once they have enrolled. This has been supported by empirical research. For example, a research conducted in rural China by Ampiah and Yebeah, (2009) found that poor and credit constrained children are three times more likely than other children to drop out of secondary school. The pressure on children from poorer background in particular, to withdraw from school increases as they get older, particularly as the opportunity cost of their time increases Ampiah, and Yebeah, (2009).

Mutwota (2013) conducted a study on the socio-economic factors influencing wastage of pupils in public primary schools in Igembe South Division, Meru County. The purpose of the study was to investigate the socio-economic factors influencing wastage of pupils in public primary schools in Igembe South Division. The factors under study were family income, cost of education, family education and early marriage. The study adopted descriptive survey design and collected data through questionnaires. Data collected was analyzed and interpreted using descriptive statistics. Findings of the study revealed that family income, cost of education, family education, and early marriages influenced educational wastage of pupils in public primary schools in the region. However, the study focused on only socio-economic factors and public primary schools.

Wambua, D. (2014) undertook a study which investigated the influence of socio-economic factors on pupils' completion rates in primary school education in Evurori Division, Mbeere North district, Kenya. The factors under study were parents' level of education, family size, family income and family household chores. The study adopted descriptive survey design with a sample of 16 head teachers and 385 pupils. Data was

collected using questionnaires and analyzed by use of descriptive statistics. The study revealed that parents' level of education, family size, family income and pupils' participation in household chores had a relationship with the schools completion rates. Head teachers indicated that the negative attitude of parents with low formal education towards education led to low completion rates among primary school pupils. In a big family size parents are strained to care for their children and some pupils leave school to work in order to support their siblings. Pupils agreed that higher income level of parents enabled pupils to continue pursuing studies for long. However, this study was also carried out in primary schools and focused on socio-economic factors only. Most of the previous studies investigating the influence of socio economic factors on educational wastage focused on primary schools and other Sub Counties. This makes the investigation of the influence of socio economic factors on educational wastage in Mbooni West Sub County a classic study.

2.6.2 Student Characteristics

Students exhibit traits that impede learning leading to poor academic performance, repetition and dropping out of school. These range from low self-esteem, academic ability, absenteeism, indiscipline, age of the student, teenage pregnancies, drug abuse and peer influence.

Some studies indicate that poor academic achievement leads to dropping out (Goldschmidt & Wang, 1999; Swanson &Scheider, 1999; Colclough et al 2000; Boyle et al, 2002; Hunter and May, 2003). Absenteeism from school and student discipline problems are also strong predictors of dropping out, especially at the secondary level of education. Girls who get pregnant and are not supported to resume their studies after

delivery normally drop out of school or come back after some years which lead to repetition. Students who also get involved in drug abuse decline in their academic performance, exhibit indiscipline and most drop out of school.

Peer group influence also plays an important role in school dropout among adolescents. It is well recognized that the extent to which an adolescent succeeds in meeting the schools expectations has an important and direct bearing upon his status in the peer group (Carter &McGoldrick, 2005). The peer group of an adolescent constitutes a world of its own with its customs, traditions, manners, and even its own language. Peers can exert extraordinary influence over each other particularly in regard to school dropout and attitudes towards school (Gara & Davis, 2006). Peer group influence upon secondary school students' attitudes towards school can be supportive of the formal organizational norms concerning the importance of academic achievement. The more cohesive the peer group is, the greater the influence on its members (Dougherty &Hammack, 1990).

Burton, Ray, & Mehta (2003) also noted that these peers pose an influence that is a common source for negative activities for students like experimentation with drugs, drinking, vandalism and stealing. Namugambe, (1999) says that some students often perceive the school as another symbol of adult authority, full of restrictions and rules, and quite often they decide to drop out.

Musangi, S. (2017) conducted a study on factors that influence educational wastage in public secondary schools in Kathiani Sub-County, Machakos County, Kenya. The purpose of the study was to determine the factors that influence educational wastage in public secondary schools in Kathiani Sub-County. The factors under study were school based, student based and home based factors. The study adopted descriptive survey

design. The target population was 31 principals, 59 form four class teachers, sub-county director of education, 10 dropouts and 10 repeaters. The principals were purposively selected; one form four class teacher in each school was randomly selected. Data was collected using interview schedule for dropouts and questionnaires for principals, class teachers, sub-county director of education and repeaters. Data was analyzed using both descriptive and inferential statistics. From the findings it was established that school based, student based and home based factors influence educational wastage. However, this study did not focus on socio-economic and community based factors.

2.6.3 School Based Factors

In an investigation conducted by Rumberger (1987), 50% of high school dropouts cited school-related reasons for leaving school. Such reasons included not liking school, being suspended or expelled from school, poor performance and insecurity in the school. Research has shown that poor academic achievement in schools as measured by grades, test scores and grade retention is associated with dropping out (Ekstrom et al, 1986). Students who exhibit behavioral problems such as absenteeism, truancy and other related discipline problems are likely candidates for dropping out. Poor school attendance and negative attitude towards the school are also reasons for dropping out. Students who drop out are more likely to perceive the school setting as non-supportive and or irrelevant.

A study conducted by Orodho, J.A.et.al (2013) on Basic education in Kenya focusing on strategies applied to cope with challenges inhibiting effective implementation of basic education curriculum in Kenya, revealed that, despite the gains made in accelerated enrolment in and quality of education since the launch of Free Primary Education (FPE) and Free Day Secondary Education(FDSE) in Kenya, at the national level, there still

remain pockets within Kenyan geographical regions which have remained behind in attaining effective implementation of curriculum, resulting into low academic achievement. Among the key challenges affecting effective implementation of basic education include insufficient physical facilities and instructional resources to cope with the exponential growth of student population resulting from the abolition of school fees and introduction of FPE and FDSE; inadequate teachers resulting in high teaching load prompting the use of ineffective teaching methods; Lack of motivation of the teaching force resulting into insufficient focus on the learner and thus creating little room for use of modern teaching techniques that require individualized teaching amongst others. As a result, the copping strategies employed both at the Ministry of Education level; school level and teacher level have not been effective in ensuring the provision of equitable and quality education.

Wanjiku (2014) also carried out a study on Determinants of Educational Wastage in Public Secondary Schools in Laikipia West County. The purpose of the study was to assess the determinants of education wastage in public secondary schools in Laikipia West District. The objectives of the study were to: determine the school based determinants that lead to education wastage in public secondary schools; establish the socio cultural determinants that lead to education wastage in public secondary schools; establish students' personal determinants that lead to education wastage in public secondary schools in Laikipia West District. In this study, the researcher employed descriptive research design. The target population for this study was 2000 respondents which consisted of 150 teachers and 1849 students and one Area Education Officer. The sample size of the study was 20 head teachers from 20 public secondary schools, 40 form

four class teachers from 20 public secondary schools, 344 form four students from the 20 public secondary schools and 1 Area Education Officer. This study used questionnaires to collect data from head teachers, form four class teachers, form four students and the Area Education Officer. Quantitative data collected by using a questionnaire was analyzed by the use of descriptive statistics using the Statistical Package for Social Sciences (SPSS) and presented through frequencies and percentages. From the findings, it was established that there has been a steady increase in the rate of wastage in public secondary school for a period of five years (2009-2013). From the study findings, school based determinants, socio-cultural determinants and students, personal determinants contribute to education wastage in the district. The influence of School based factors on educational wastage in public secondary schools in Mbooni West Sub County has not been investigated. This study therefore sought to fill this gap.

2.6.4 Community Based Factors

The school and the community interact closely and should therefore work together to mold students to be responsible and dependable members of the society. However, some community factors may positively or negatively impact on students' participation in education.

A study conducted by Alam (2015) in Bangladesh identified key factors of the community that affect quality of primary education as the community environment, financial position of the community, educational status of the community, communication and support given to the school and unity and cooperation exhibited amongst the community's population. From this research a parent complained that due to the community environment (availability of shops), many children do not go to school

but watch cinema and play video games in the shops near the school a practice which affects children learning negatively.

Alam (2015) notes that good environment both inside and outside the school is necessary for ensuring quality education. Children learn from the community members. The behaviour of inhabitants of a community reflects the climate of that community and therefore community environment is important for children learning. If a community is occupied by educated people more children from that community attend school. On the other hand illiterate parents and an uneducated community send their children to work instead of school because they are not aware of the value of education. Market centres within communities with lots of entertainment activities such as cinemas and video games may also affect children's school attendance. The environment of a community is related to the availability of resources in the community. Communities with recreational facilities such as sports fields and educational facilities such as libraries may help create a supportive environment for children learning. Therefore, the environment of a community is an important element in helping to maintain quality education in schools. Communities play a crucial role in adolescent development along with families, schools, and peers. Rumberger (2008) further argued that Population characteristics of communities are associated with dropping out, but not in a straight forward manner: living in a high poverty neighbourhood is not necessarily detrimental to completing high school, but rather living in an affluent neighbourhood is beneficial to school success. This suggests that affluent neighbourhoods provide more access to community resources and positive role models from affluent neighbours.

The education status of a community influences children's school attendance, retention and completion. If neighbourhoods are uneducated, children can't study well. Some children may accompany or imitate the uneducated peers in the community. Uneducated people are not aware of the value of education thus may not support their children's education. They may also become negative role models to the children as members of the community. On the other hand, educated people are aware of the value of education and therefore support their children education (Alam, 2015).

Community population can extend support and cooperation to schools in many ways. Local support is important for children's success. Community can support through participation in school management committee and parent teacher association. There should be good communication between the school and community because community communication and support has enormous potential to assist children's success. The impact of support and cooperation of a community to a school depends on the characteristics of the particular community. The characteristics of a community prepare the mind of the population to do something to enhance children's education. Alam (2015) discovered that community members were not willing to communicate and cooperate with the schools for quality children's education. The causes of the unwillingness may be lack of faith between the community population and teachers, a lack of awareness amongst the community's population regarding their responsibilities to schools and their inability to carry these out due to their poverty and illiteracy. Some parents also perceive the school as a Government's organization which does not require parental assistance to ensure the school's success.

Anne,T. Henderson and Karen, L. Mapp (2002) noted that there is a significant positive correlation between school, family, and community involvement and student success. Oftentimes, the onus for providing a well-rounded educational experience for every student falls directly on the shoulders of the school administrators, teachers, faculty, and staff. However, this limited perspective overlooks the fact that much of a child's life and education occurs outside the classroom. What happens before the school day starts and after it ends can be just as important and impactful in the lives of your students as what happens during the traditional school day. This is why community engagement and involvement in schools is such an important facet of the educational process. Previous researches that focus on the contribution of community based factors on educational wastage are scanty. Further, such an investigation has not been done in Mbooni West Sub County making this study necessary to fill the gap.

2.7 Problems emanating from Educational Wastage

Educational wastage can lead to diverse issues which include unemployment, less income earnings, increased criminality and poor health. It can also cause failure of an education system to provide universal education, set appropriate objectives and inefficiency in the achievement of objectives.

Wastage of education resources has led to poor economic growth and increased poverty levels. Official documents indicates that about 50% of Kenyans live below the poverty line and are therefore unable to access basic services like food, education, shelter and health. Households and communities have therefore been unable to invest and support the development of basic education. Many parents especially in rural areas, ASAL regions and slum urban centres have been unable to provide their children with necessary

education requirements. Consequently, this has resulted in non-enrolment of school age children especially girls, pulling-out those who are in school to supplement household income, not participating actively in the affairs of the school, marrying off girls when still young and supporting child labour (Republic of Kenya, 2001).

Studies conducted by Rumberger (1987) revealed that the most individual consequence of dropping out of school is low level of academic skills. Failing to graduate from secondary school ensures that a person does not have sufficient academic skills for successful employment and further education. Because of their low levels of academic skills, many secondary school dropouts find it difficult to secure steady employment or pursue courses that can assist them generate income. The dropouts have fewer opportunities to obtain additional education and training needed to make one remain competitive in the job market.

A study carried out by Levin (1972) on high school dropouts in the United States revealed several social consequences associated with dropping out of high school. These social consequences include foregone national income; increased demand for social services such as welfare, medical assistance and unemployment assistance by the dropouts; increased crime; poorer levels of health; reduced political participation and reduced intergenerational mobility.

2.8 Summary and Critique of Literature Review

Literature review has indicated that education is a critical tool in every nation in the creation of human capital. The review has also shown that efficiency in schools is affected by socio-economic, school based, student based and community based factors. Empirical studies have revealed that educational wastage which is an indicator of internal

inefficiency in an education system is compounded by the above mentioned factors. However, these studies have been conducted in other regions and most of them were conducted in Primary schools. It is for this reason that a similar study is intended to investigate the influence of these factors on educational wastage in public secondary schools in Mbooni West Sub-County.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the procedures and strategies that were used in this study. The chapter will focus on research design, target population, sampling techniques and sample size, research instruments, pilot study, validity of the research instruments, reliability of the research instruments, data collection procedures, data analysis techniques and ethical considerations.

3.2 Research Design

Research design involves organizing the collection of data and analysis of data to provide information which it sought for decision making (Oso and Onen, 2008). This research adopted a descriptive survey design as it is aimed at description of state of affairs as they exist (Kombo& Tromp, 2007). Descriptive research design describes the key features of an occurrence, people, society or a target population (Chandran, 2004).

Descriptive research design is more of a fact finding enterprise, focusing on relatively few dimensions of a well-defined entity (Klein, 2007).The purpose of a descriptive research design is to describe and give interpretation of individuals, objects, settings, conditions or events. Descriptive research design describes a thing, situation or phenomena and seeks complete and accurate description of a situation at hand. The researcher therefore found this design appropriate because it gave a great deal of accurate information and described the influence of socio-economic, school based, student based and community based factors on educational wastage in public secondary schools in Mbooni West Sub-County. Descriptive survey design has been adopted by other

researchers in previous studies. For instance, Musangi (2017) carried out a research on factors that influence educational wastage in public secondary schools in Kathiani Sub County in Machakos County. She adopted descriptive survey design which gave reliable results. Further, Wanjiku (2014) adopted descriptive survey design in a study that sought to investigate the determinants of educational wastage in public secondary schools in Laikipia West District in Kenya.

3.3 Target Population

According to Best and Kahn (2007) a population is any group of individuals who have one or more characteristics in common that are of interest to the researcher. The population may be all the individuals of a particular type or a more restricted part of that group. A target population is the total number of subjects in the study. Mbooni West Sub-County has a total of forty five (45) secondary schools. These comprises of four (4) private schools and forty one (41) public schools. Out of the forty one public secondary schools, four (4) are girls' boarding, three (3) boys' boarding, two (2) mixed boarding, twenty five (25) mixed day and seven (7) mixed day and boarding schools. The target population for this study comprised of all the forty one (41) public secondary schools.

Table 3.1: Target Population

Schools' Category	Frequency
Girls' boarding	4
Boys' boarding	3
Mixed boarding	2
Mixed day	25
Mixed day and boarding	7
Total	**41**

Source: M.O.E, Mbooni West Sub-County (2018)

3.4 Sampling Techniques and Sample Size

3.4.1 Sample Size

Kothari (2004) defines a sample as a representative part of a population. Thus by studying the sample one can be able to know about the population without having to study the entire population.

Table 3.2: Population and Sample Size

	population	Sample size	Sampling Technique
Girls' boarding	4	2	Purposive Sampling
Boys' boarding	3	2	Purposive Sampling
Mixed boarding	2	2	Purposive Sampling
Mixed day	25	6	Simple Random Sampling
Mixed day and boarding	7	3	Simple Random Sampling
Total	41	15	

Source: Author 2019

3.4.2 Sampling Technique

Stratified random sampling was used to select fifteen (15) schools out of forty one (41) public secondary schools that are in the sub-county. The fifteen (15) schools constituted 37% of the total number of schools. This 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. In this case the population of schools is small thus a sample of 37% was sufficient. The schools were selected depending on the categories of schools in the Sub County. That is, whether Boys/Girls Boarding, Mixed Day or Mixed Boarding or Mixed day and Boarding.

Table 3.3: Target Respondents

	Girls' boarding	Boys' boarding	Mixed boarding	Mixed day	Mixed day and boarding	Total
Principals	2	2	2	6	3	15
Dean/ Senior teacher	2	2	2	6	3	15
Class teachers	2	2	2	6	3	15
Total						**45**

Source: Author

The target respondents comprised of principals, academic deans or senior teachers and form three class teachers. From the 15 schools selected through stratified random sampling, purposive sampling was used to select 15 principals and 15 academic deans. Simple random sampling was used to pick 15 form three class teachers. Principals academic deans and form three class teachers were preferred because students are under their custody in school. Form three class teachers were selected because most of the drop out and repetition cases occur in form two and three and the class teachers have spent a substantial time with them.

3.5 Data collection Instruments

Various instruments are used in data collection. Data collection is a way of gathering empirical evidence in order to gain new insight about a situation and answers questions that prompt the undertaking of research. Some of the tools to collect data include observation; interview schedules, questionnaires, and focus group discussion.

Data was collected from both primary and secondary sources. Questionnaires were used as the tool for collecting primary data and secondary data was obtained through document analysis. The selection of the instruments was guided by the time available, study objectives and the nature of the data to be collected. Three sets of questionnaires were used; a questionnaire for the principals, academic dean or senior teacher and class teachers. A proforma was used to collect information from the Sub-County Director of Education.

According to Orodho (2004) a questionnaire is the most used method when respondents can be willing to cooperate. Questionnaires ensure confidentiality of the respondents and thus they can gather candid and objective responses.

3.6 Pilot Study

The researcher selected one secondary school from Mbooni West Sub-County to pilot the study instruments. The secondary school in the pilot study was not used in the final study. The purpose of the pilot study was to test the appropriateness of the items to respondents in order to improve the instruments and enhance their validity and reliability.

3.7 Validity of Research Instruments

Validity is the extent to which research instruments measure what they are intended to measure (Oso &Onen, 2008). It refers to the extent in which an instrument asks the right questions in terms of accuracy (Fraenkal &Wallen, 2007). To ensure validity of the instruments, the researcher discussed the instruments with the supervisors to assess the relevance of the content used in the instruments developed and made structural changes for the purpose of improvement of the instruments before embarking on the actual data collection.

3.8 Reliability of the Instruments

Reliability is the degree of consistency that an instrument or procedure demonstrates (Best and Kahn, 2006). It is the measure of the degree to which an instrument yields consistent results or data after repeated trial (Mugenda and Mugenda, 2003). Reliability was ensured by pre-testing the instruments in a selected sample on a school from the target population. An internal consistency technique was applied by use of Cronbach's Alpha. The Alpha value usually ranges between 0 and 1 with reliability increasing with the increase in value. A high coefficient implies that items correlate highly among themselves i.e. there is consistency among items in measuring the concept of interest (Mugenda &Mugenda, 1999). Coefficient of 0.6-0.7 is a commonly accepted rule of thumb that indicates acceptable reliability and 0.8 or higher indicates good reliability.

3.8.1 Reliability Analysis

The table below shows the findings on reliability test which was conducted during pilot testing and final research

Table 3.4: Reliability Analysis

Variables	Cronbach Alpha co-efficient (pre-testing)	Cronbach Alpha co-efficient (actual testing)	No. of items	Comment
Socio economic factors	0.185	0.700	3	Reliable
Student based factors	0.409	0.690	4	Reliable
School based factors	0.765	0.765	4	Reliable
Community based factors	0.535	0.890	4	Reliable

Source: Survey data (2019)

From the above table, all the variables had a Cronbach coefficient value of greater than 0.7. According to Best and Kahn (2006) a Cronbach value of greater than 0.7 indicates that the instrument was internally consistent.

3.9 Data collection Techniques

The researcher obtained a research permit from the National Commission for Science, Technology and innovation (NACOSTI) before commencing the study. The researcher also sought the consent of the Sub-County Director of Education, Mbooni West Sub-County to carry out the study. The researcher made an appointment with the public secondary school principals and personally administered the research instruments to the respondents.

3.10 Data Analysis

This is the process of organizing the collected data and putting it together so that the researcher can meaningfully, categorize and synthesize information from the data collecting tools (Mugenda and Mugenda 2003). The researcher perused the returned research instruments to sort them out. Quantitative data was analyzed through descriptive statistics which includes mean, standard deviation and presented through tables, bar graphs, pie charts, frequencies and percentages according to the research objectives and questions to make meaningful conclusions. This helped to make interpretation easy and convenient in giving a general overview of the influence of socio-economic, school based, student based and community based factors on educational wastage in public secondary schools in Mbooni West Sub-County. Qualitative data was analyzed through content analysis. The Statistical Package for Social Sciences (SPSS) was used to aid in the analysis.

3.11 Logistical and Ethical Considerations

The researcher collected data from each education zone individually to minimize cost and reduce instances of duplicity while carrying out the study. The researcher sought the consent of the respondents and assured them that confidentiality will be upheld in dealing with their identity. The researcher also sensitized the respondents on the need to have them participate in the study and assured them that their responses will only be used for the purpose of the study.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION.

4.1 Introduction

This chapter presents the data analysis, presentation and interpretation of the findings from the field data collected. The findings are presented in the order of the objectives of the study under the themes; demographic information, nature of wastage in schools, descriptive analysis of socio economic factors, student based characteristics, school based and community based factors and content analysis of qualitative data. Out of a total of 45 questionnaires issued, 43 questionnaires were duly filled and returned and used in the data analysis. This was 95.6% response rate which is considered good and acceptable.

4.2 General characteristics of the respondents

In this section, the respondents were asked to give information regarding their background characteristics.

4.2.1 Gender of the respondents

The chart below illustrates the respondents' information on gender:

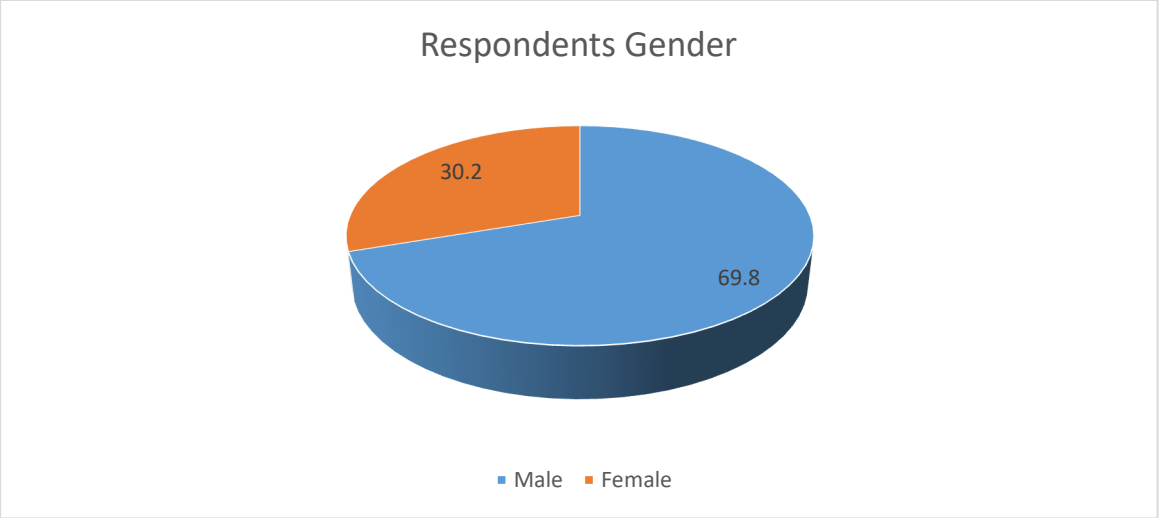

Fig 4.1: Respondents gender

From the findings of the study, 69.8% of the respondents were male whereas 30.2% of the respondents were female. The male respondents were more than their female counterparts in participation in the study.

4.2.2 Age of the respondents

The figure below shows the age of the respondents:

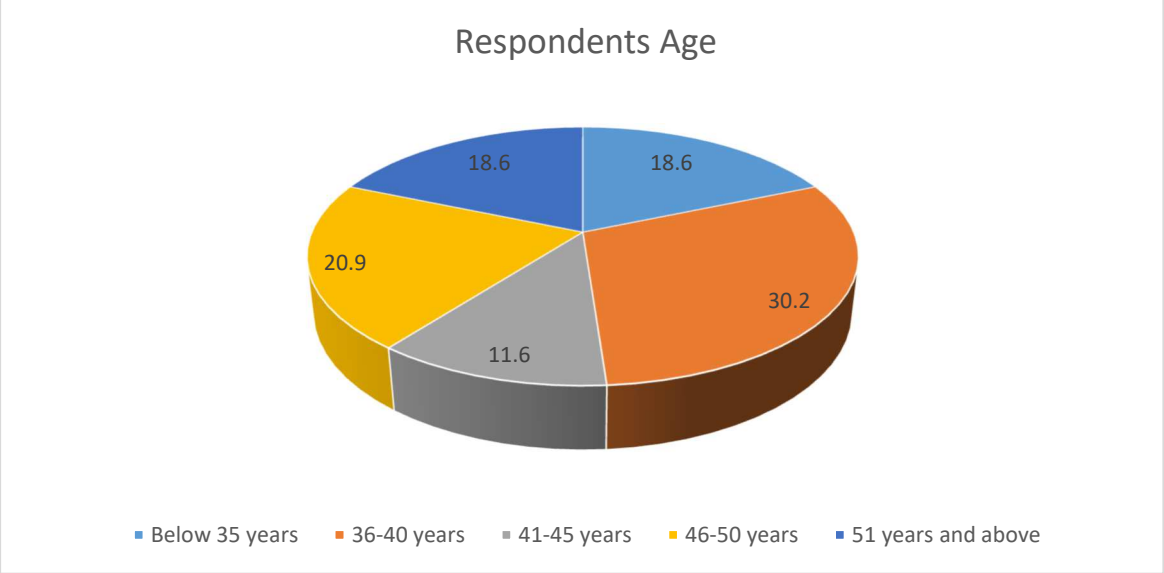

Fig 4.2: Respondents Age

From the above figure, 18.6% of the respondents were below 35 years of age, 30.2% of the respondents were between 36 and 40 years of age, 11.6% of the respondents were between 41 and 45 years whereas 18.6% were 51 years and above. Most of the respondents were aged between 36 and 40 years of age and that the respondents were youthful since more than 50% of the respondents were aged below 45 years. Therefore, this shows that the respondents were of appropriate age and had the ability to understand and relate with the content in the data collection instrument.

4.2.3 Academic level of the respondents

The figure below discusses the academic level of the respondents:

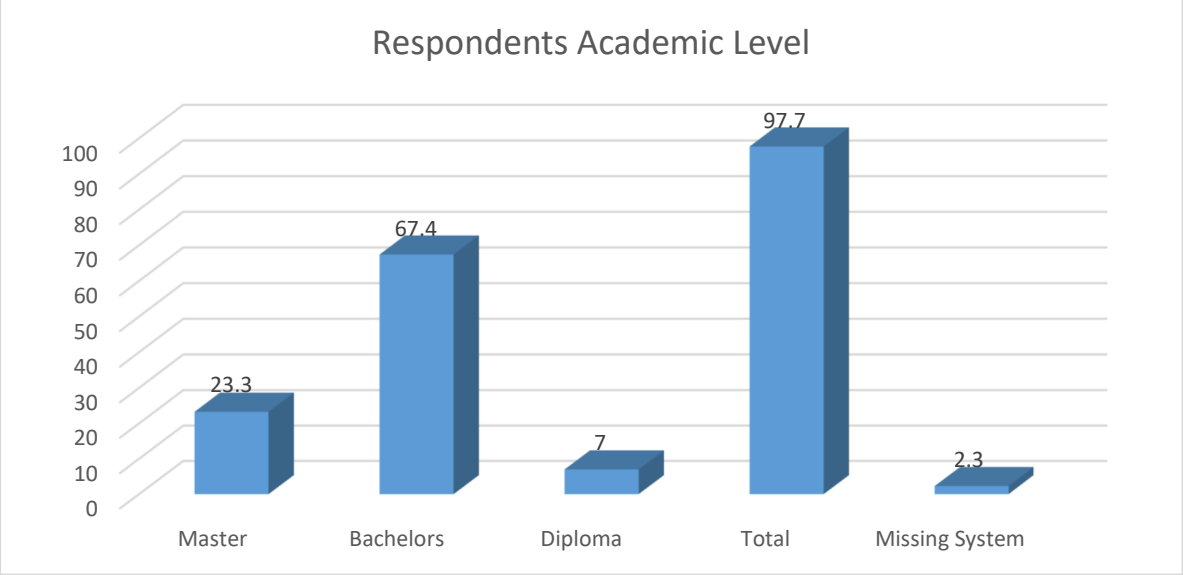

Fig 4.3: Respondents Academic Level

From the above bar chart, 23.3% of the respondents had attained master level of education, 67.4% of the respondents had attained bachelor level of education, 7% of the respondents had attained Diploma level of education whereas 2.3% of the respondents did not attempt the question. From these findings, the respondents had attained some

level of education and were therefore an appropriate sample since they understood the content in the data collection instrument.

4.2.4 Position of respondents in the school

The chart below shows the position of the respondents in the school

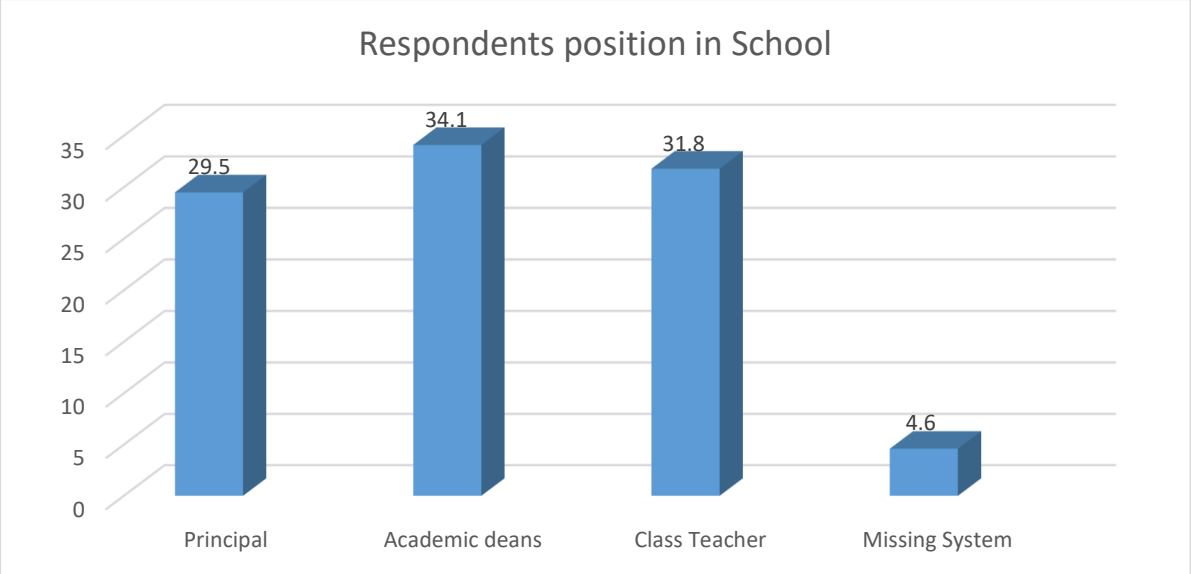

Fig4.4: Respondent position in school

From the bar chart, the study found out that 29.5% of the respondents were principals, 34.1 % of the respondents were academic deans, and 31.8% of the respondents were class teachers. Most of the respondents were academic deans. This was appropriate for the study since most of the students' data records are managed by the academic deans.

4.2.5 Years of experience of the respondents

The table below shows the years of experience of the respondents in the school

Table 4.1: Respondents' Years of Experience

	Professional experience				Total
Position in the school	1-5 years	6-10 years	11-15 years	16 years and above	
Principal	0	1	2	10	**13**
Academic dean	5	4	3	4	**16**
Class Teacher	0	0	0	1	**1**
Total	**5**	**5**	**5**	**15**	**30**

Source: Survey data (2019)

From the above findings, only 30 respondents indicated their levels of experience. Most of the principals had 16 years of experience and above and most of the academic deans had an experience of between 1 and 5 years. Therefore, these findings conclude that, the higher positions in the schools were determined with the years of professional experience. The experience of the respondents was significant in this study as it indicates adequate experience in the teaching profession hence the necessary exposure in carrying out their roles and also provision of credible information on the factors influencing educational wastage in the Sub County.

4.3 Nature of Wastage in Schools

In this section, the respondents were asked to indicate their level of agreement with the nature of wastage based on repetition, dropping out and poor academic performance in their schools. This was measured on a likert scale of 1-5, where 1=strongly disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

The figure below shows the respondents participation to the question on the nature of wastage that most likely affected their schools

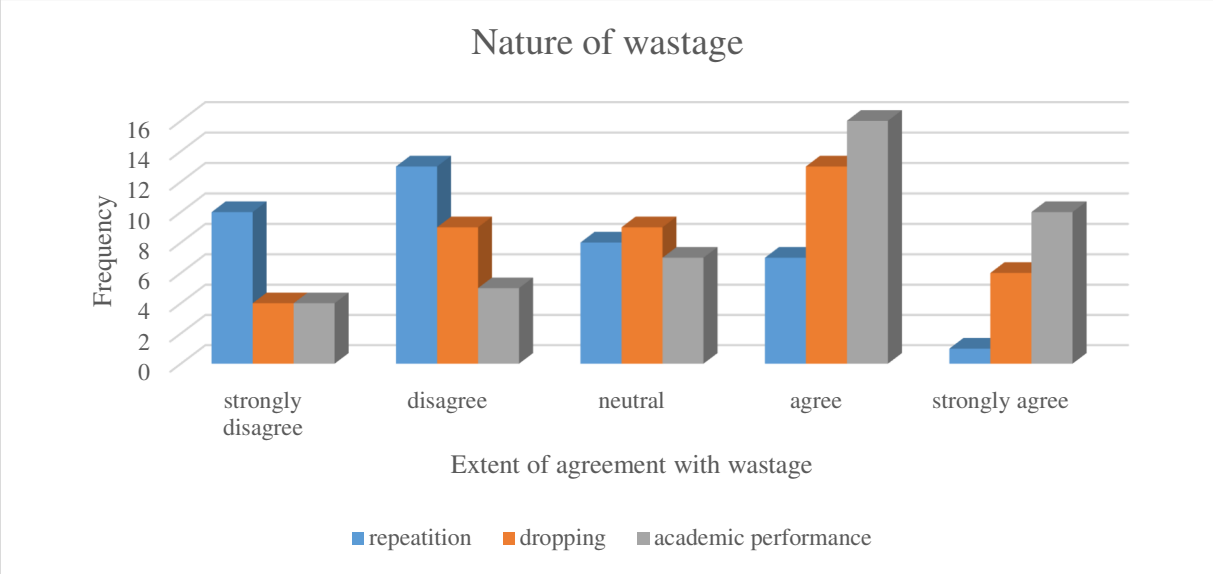

Figure 4.5: Nature of Wastage in Schools

From the figure above 39 respondents participated to the question on repetition as a nature of wastage in their school, 41 respondents participated to the question on dropping out as a nature of wastage, whereas 42 respondents participated to the question on poor academic performance as a nature of wastage.

Table 4.2: Nature of Wastage in Schools

	N	Min.	Max.	Mean	SD
Repetition	39	1.00	5.00	2.3846	1.13822
Dropping out	41	1.00	5.00	3.1951	1.22922
Poor academic performance	42	1.00	5.00	3.5476	1.25333
Aggregate score	**38**			**3.0424**	**1.20692**

Source: Survey data (2019)

From the above table, the responses ranged between 1 and 5. Based on the statement of repetition, most of the respondents disagreed (Mean=2.3846) that it was a nature of wastage in their schools. Based on the statements on dropping out (Mean=3.1951) the respondents were not sure whether it was a nature of wastage affecting their schools. Poor academic performance had the highest mean (Mean=3.5476) as a nature of wastage affecting their schools.

The respondents cited that their schools did not allow repetition and that most of the repeaters were form four students in search of better performance in KCSE examinations. This could therefore explain why the respondents disagreed with the statement on repetition. The respondents were not sure whether the reasons of students leaving their schools was as a result of transfers to other schools or dropping out and therefore could explain the results on the statement on dropouts. Wambua (2014) argued that education even though subsidized by the government to ensure higher completion rates, some students left school to assist parents in taking care of the siblings, or even as a result of negative attitude of parents, hence could explain the results on academic performance.

4.4 Descriptive Analysis

4.4.1 Socio Economic Factors and Educational Wastage

In this section, the respondents were asked to indicate their level of agreement to the extent to which socio economic factors influenced wastage in their schools. This was measured on a likert scale of 1-5, where 1=strongly disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

Table 4.3: Socio-Economic Based Factors and Educational Wastage

	N	Min.	Max.	Mean	SD
Family income	41	1.00	5.00	4.0488	.94740
Parental level of education	43	1.00	5.00	3.7442	.97817
Health status	42	1.00	5.00	2.8333	1.01011
Aggregate score	**41**			**3.542**	**0.9786**

Source: Survey data (2019)

From the above table, the responses ranged between 1 and 5. Averagely, the respondents who participated in the questions on socio-economic factors were 41. Based on the statement on family income, most of the respondents agreed that family income was a socio-economic factor (Mean=4.0488; SD= 0.94740) influencing wastage. This is in concurrence with Mutwota (2013) who noted that family income influenced educational wastage. This is also in line with the findings of Ampiah and Yebeah, (2009) who concluded that poor and credit constrained children are three times more likely than other children to drop out of secondary school. The pressure on children from poorer background in particular, to withdraw from school increases as they get older, particularly as the opportunity cost of their time increases. It is also worth noting that high parental income makes it convenient to provide more resources to support children's education, including access to better quality schools, private tuitions and more support for learning within home. Respondents cited that poverty exists in many households within the Sub County and this make parents unable or not prompt in paying their children's school fees and meeting other education needs. This affects the education of their children leading to poor academic performance due to absenteeism and dropping out for others.

Parental level of education was second as a socio-economic factor that influences educational wastage (Mean=3.7442; SD=0.97817). This finding is in line with Musangi (2017) who concluded that parental level of education influences educational wastage. This is further supported by the findings of UNICEF (2007) which observed in a research carried out in fifty five countries that if educated women become mothers, they are likely to send their children to school, thereby passing on and multiplying the benefits both to themselves and the community at large. This shows that educated parents will find education more meaningful and therefore strive to educate their children. But parents with low education level and poor are not well involved in community and school activities because of poverty therefore their children drop out from school earlier than their counterparts of educated parents. The respondents pointed out that parental involvement in their children's education is low in their schools and this could explain the outcome of the statement. This may be caused by some parent's low level of education and the poverty causing financial constraints. It is important that parents give moral support as well as financial to their children to encourage completion of studies hence reduce wastage in education.

The respondents disagreed with the statement of health status as a socio-economic factor (mean=2.8333; SD=1.01011). Respondents cited absenteeism of students as a factor towards wastage, even though it could not be traced whether it was as a result of health issue or personal issue of the absent student, this could explain the result on health status. Respondents were also of the view that some students dropped out of school to assist their parents financially by engaging in income generating activities. Others opined that

students dropped out due to high poverty levels. This is in line with Wambua (2014) who agrees that socio-economic based factors influence educational wastage.

4.4.2 Student Based Characteristics and Educational Wastage

In this section, the respondents were asked to indicate their level of agreement to the extent to which Student based characteristics influenced wastage in their schools. This was measured on a likert scale of 1-5, where 1=strongly disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

Table 4.4: Student Based Factors and Educational Wastage

	N	Min.	Max.	Mean	SD
Academic ability	40	1.00	5.00	3.8000	1.06699
Drug abuse	40	1.00	5.00	3.7500	1.05612
Peer influence	41	1.00	5.00	3.8293	.94611
Teenage pregnancies	39	1.00	5.00	3.5641	1.16517
Aggregate score	**38**			**3.7359**	**1.0586**

Source: Survey data (2019)

From the above table, an average of 38 respondents participated to the questions on Student based characteristics. Academic ability was a student based characteristic influencing wastage (mean=3.800; SD=1.06699).Indeed research has shown that poor academic achievement in schools as measured by grades, test scores and grade retention is associated with dropping out (Ekstrom et al, 1986). Students who continuously perform dismally academically lose interest in studies and leave school to attend to other activities of interest mostly income generating activities to assist their poor parents in raising income for a living. Drug abuse was also a student based characteristic that

influences educational wastage (mean=3.7500; SD=1.05612). Respondents cited that drug abuse has become a great threat to the education of young people. Students involved in drug abuse drop out of school or end up performing poorly in academics.

Further, peer influence was a student based characteristic influencing wastage (mean=3.8293; SD=0.94611). Previous studies have found peer influence to be a significant determinant of educational wastage. For instance, Gara& Davis, (2006) concluded that the peer group of an adolescent constitutes a world of its own with its customs, traditions, manners, and even its own language. Peers can exert extraordinary influence over each other particularly in regard to school dropout and attitudes towards school. Further, Burton, Ray, & Mehta (2003) also noted that these peers pose an influence that is a common source for negative activities for students like experimentation with drugs, drinking, vandalism and stealing. Respondents agreed that students in their schools experience peer pressure or influence which contributes to negative decisions of leaving school and practices that jeopardize their education.

Also, teenage pregnancies (mean=3.5641; SD=1.16517) was a student based characteristic that influenced wastage in their schools. Respondents agreed that teenage pregnancies occur in their schools and this leads to dropping out of school for some girls who do not seek re-admission. Teenage pregnancies also contribute to poor academic performance. They may also lead to repetition of a grade if the student does not resume studies immediately after delivery due to the challenge of raising the newborn baby. This is supported by findings of Musangi (2017) who concluded that teenage pregnancy and its associated motherhood are characterised with shame, disgrace and school dropout. Although the policy of re admission is operating, sometimes pregnancy ends the dreams

of a student to achieve higher pursuits. The respondents cited that there was a tendency of more girls leaving their schools than boys, however since their schools did not make a follow up; it was difficult to establish whether they had dropped out or transferred to other schools. The respondents also opined that maturity and poverty were issues that led to students dropping out of school.

Generally, Student based characteristics (mean=3.7359; SD=1.0586) influence educational wastage in public secondary schools in Mbooni West Sub County. From the finding of this study student based characteristics have the highest mean and therefore wastage among the students in Mbooni West Sub County Public Secondary schools can be attributed more to individual students' characteristics than the socio-economic, school and community based factors. This finding concurs with the findings of Wanjiku (2014) who argued that wastage among students can be attributed more to individual student's personal attributes than the school and cultural determinants. This finding also concurs with the finding of Musangi (2017) who concluded that student based characteristics contribute significantly to educational wastage.

4.4.3 School Based Factors and Educational Wastage

In this section, the respondents were asked to indicate their level of agreement to the extent to which school based factors influenced wastage in their schools. This was measured on a likert scale of 1-5, where 1=strongly disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

Table 4.5: School Based Factors and Educational Wastage

	N	Min.	Max.	Mean	SD
Inadequate teachers	42	1.00	5.00	2.7143	1.40184
Insufficient physical facilities	42	1.00	5.00	2.7381	1.25055
Insufficient instructional resources	42	1.00	4.00	2.5000	1.01813
Lack of motivation of teachers	42	1.00	5.00	3.0952	1.33999
Aggregate score	**42**			**2.7619**	**1.2526**

Source: Survey data (2019)

From the above table, the respondents who participated to the statements on school based factors were 42. Respondents' responses ranged between 1 and 5 for statements on inadequate teachers, insufficient physical facilities and lack of motivation of teachers. The respondents' responses ranged between 1 and 5 for statement on insufficient instructional resources. The respondents disagreed with the statements on inadequate teachers (mean=2.7143; SD=1.40184), insufficient physical facilities (mean=2.7381; SD=1.25055) and insufficient instructional resources (mean=2.5000; SD=1.01813) to be school based factors influencing wastage in their schools. The respondents were not sure with the statement on lack of motivation of teachers (mean=3.0952; SD=1.33999). Generally, the respondents disagreed to the statements on school based factors (mean=2.76; SD=1.2526) as factors influencing educational wastage in Mbooni West Sub County. The means for the statements on school based factors are, 2.7143 for

inadequate teachers, 2.7381 for insufficient physical facilities, 2.5 for insufficient instructional resources and 3.0 for lack of motivation of teachers implying that school based factors are underlying causes of educational wastage in Mbooni West Sub County though not focused on in many schools. School based factors should be put into consideration when dealing with educational wastage in the sub county as they can create an environment where learners are motivated to learn or lead to a negative attitude towards learning.

The respondents cited that school management should be sensitized on educational wastage so as to improve on their efficiency. This could support the study findings by indicating that even though they are underlying factors, school management in Mbooni West Sub-County focus mostly on students based factors than school based factors hence an area for further investigation. Deribe (2015) pointed out that one of the components required to make an educational system viable, functional and productive is the availability of qualified and adequate teaching staff. Orodho (2013) agreed that inadequacy on the part of teachers and physical facilities were some of the school based factors leading to education wastage. Abagi (1997) noted that availability of scholastic materials retains pupils in school. Unavailability of school facilities or poor school facilities may reduce school retention. School facilities make teaching and learning smooth and enjoyable. Musangi (2017) also agreed that school based factors such as staffing, physical facilities and teaching and learning resources influence educational wastage.

4.4.4 Community Based Factors and Educational Wastage

In this section, the respondents were asked to indicate their level of agreement to the extent to which community based factors influenced wastage in their schools. This was measured on a scale of 1-5, where 1=strongly disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree

Table 4.6: Community Based Factors and Educational Wastage

	N	Min.	Max.	Mean	SD
Community environment	42	1.00	5.00	3.6667	1.09693
Educational status of community	42	1.00	5.00	3.5000	.83374
Communication and support by community	42	1.00	5.00	3.7857	1.02495
Aggregate score	**42**			**3.6508**	**0.98520**

Source: Survey data (2019)

From the above table the respondents' responses ranged between 1 and 5. Communication and support by community (mean=3.7857; SD=1.02495) topped the community based factors statements. This implies that community communication and support for schools has enormous potential to assist children's success in education. A community that cares about its schools creates a conducive environment for learning thus helps in improving academic performance and reducing educational wastage. A community with an unconducive environment for learning contributes to education wastage through dropouts, repetition, non-enrolment and poor academic performance. Respondents agreed that community communication and support to schools is critical in the wellbeing of learners. Some cited that the community has negative attitude towards their schools and do not support the school as expected. This concurs with the findings of

Alam (2015) who discovered that community members were not willing to communicate and cooperate with the schools for quality children's education. The causes of the unwillingness may be lack of faith between the community population and teachers, a lack of awareness amongst the community's population regarding their responsibilities to schools and their inability to carry these out due to their poverty and illiteracy. Community environment (mean=3.6667; SD=1.09693) was second as a community based factor that influences educational wastage. Good environment outside and inside the school is necessary for ensuring quality education. Alam (2015) noted that the behaviour of inhabitants of a community reflects the climate of that community. This implies that a community can positively or negatively affect learners. Respondents cited that due to poverty some learners leave school to engage in income generating activities to support their poverty stricken families. Many of those who live under such situations engage in motor bike riding which eventually attracts other youths who are unfortunately school going. Educational status of the community (mean=3.5000; SD=0.83374) was third implying that respondents agreed it is a community based factor that influenced educational wastage. Alam (2015) pointed out that if a community is occupied by educated people more children attend school from that community. On the other hand illiterate parents send their children to work instead of school as they are not aware of the value of education. Generally, community based factors (mean=3.65; SD=0.985) influenced educational wastage. Alam (2015) agrees that community environment, financial position of the community, educational status of the community and communication and support given to schools by the community were community factors affecting educational wastage. This is further supported by research finding of Anne,T.

Henderson and Karen, L. Mapp (2002) who argue that there is a significant positive correlation between school, family and community involvement and student success.

4.5Content Analysis for Qualitative Data

The study gathered qualitative data where respondents were asked to comment or give their opinion on the repetition trend, dropout trend and what should be done to manage wastage.

4.5.1 Repetition Trend in Public Secondary Schools in Mbooni West Sub County.

From the data findings on repeaters, most respondents provided that more boys tended to repeat school than girls. In regards to the trend of repeaters, most of the respondents thought that the level of repeaters was to a low level and the trend was that they increased as they approached senior levels of classes that is, form four. The increased trend was attributed to the fact that most of the students repeated so as to obtain a better KCSE result. In some schools, the school management did not allow for repetition hence there were no repeaters a situation that well explains the low level of repetition revealed by the study.

4.5.2 Dropout Trend in Public Secondary Schools in Mbooni West Sub County.

From the data findings, more girls dropped out of school than boys. On the issue of dropouts, the respondents thought that the number of students leaving their schools was a bit higher, however some of the respondents were not sure if it could be as a result of drop outs or transfers. Some of the reasons attributed to the dropouts were maturity, poverty, drug and substance abuse as well as early pregnancies.

4.5.3 Measures to Curb Education Wastage

On the issue of management of educational wastage, the respondents thought that the wastage could be managed at different levels:

At student level: the respondents opined that guidance and counselling and sensitization programs among the students could assist in managing wastage.

At school level: the respondents opined that school management should strengthen guidance and counselling as well as arrange for bursaries for underprivileged students.

At community level: the respondents opined that community sensitization on secondary education as well as stakeholder involvement and engagement was appropriate for managing wastage.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides the summary of the study findings, the conclusions and recommendations for future studies.

5.2 Summary of the Findings

The purpose of the study was to investigate the factors that influence educational wastage in public secondary schools in Mbooni West Sub County. The objectives of the study were; to determine the socio-economic factors that influence educational wastage, to establish the influence of student based characteristics on educational wastage, to examine the school based factors that influence educational wastage and to establish the community based factors that influence educational wastage in public secondary schools in the Mbooni West Sub County. Descriptive survey design was used in the study. Data was collected using questionnaires for the target respondents and a proforma for the Sub County Director of education. The area of Study was Mbooni West Sub County in Makueni County. The target population was the 41 public secondary schools in the Sub County which through stratified random sampling yielded 15 principals, 15 academic deans and 15 form three class teachers giving a total of 45 respondents. Data collected was analysed through descriptive statistics and content analysis. The analysed data was presented through tables, pie charts, bar graphs, frequencies and percentages according to the study objectives to make meaningful conclusions.

Based on the biographic information, most of the respondents were male (69.8%), middle aged (36 to 40 years old), had some level of work experience for instance academic deans had an experience of between 1 and 5 years whereas the principals had an experience of 16 years and above, and held a position at the workplace. The study revealed that the nature of wastage experienced most in the schools was poor academic performance which had a mean of 3.5. Dropping out was second as a nature of wastage with a mean of 3.1. The respondents cited that they could not establish whether the students who left their schools dropped out or transferred to other schools since they did not make a follow up. Repetition as a nature of wastage had a mean of 2.3. The respondents cited that most repeaters were form four students after their K.C.S.E exam who sought to improve their grades to qualify for better courses or admission into the university. Further, respondents explained that their schools did not allow repetition. This could also explain that the Ministry of Education policy against forced repetition has helped to reduce cases of repetition in the Sub County.

The first objective of the study sought to find out the effect of socio economic based factors on wastage. The respondents agreed that family income (mean 4.0488) and parental level of education (mean 3.7442) were the main socio-economic factors that influenced educational wastage. Therefore, socioeconomic factors influence wastage in public secondary schools in Mbooni West Sub-County of Makueni County.

The second objective of the study sought to establish the effect of student-based factors on wastage. The study found out that most of the respondents agreed that peer influence (mean 3.8293) rated high as a student based factor that influenced wastage. Academic ability (mean 3.8000) followed as a student-based factor that influences educational

wastage. Drug abuse (mean 3.7500) and teenage pregnancies (mean 3.5) also as student based factors influenced educational wastage. Therefore, student-based factors influence wastage in public secondary schools in Mbooni West Sub-County of Makueni County.

The third objective of the study sought to establish the effect of school-based factors on wastage. The study found out that the respondents disagreed on the statements on school-based factors. Lack of motivation of teachers had a mean of 3.0952 which indicates that the respondents were neutral or not sure whether it influenced wastage in their schools. Inadequate teachers had a mean of 2.7143, insufficient physical facilities a mean of 2.7381 and insufficient instructional resources a mean of 2.5000. This indicates that the respondents disagreed with the statements. Therefore, school based factors are factors that do not lead to wastage among public secondary schools in Mbooni West Sub-County of Makueni County. This area calls for further investigation in future researches because it is contrary to findings of other previous researches which have established that school based factors influence wastage in other Sub Counties.

The fourth objective of the study sought to establish the effect of community-based factors on wastage. The respondents agreed that community based factors influence educational wastage. From the findings of the research, communication and support given to the school by the community had a mean of 3.7857, community environment a mean of 3.6667 and educational status of the community a mean of 3. 5000. Therefore, community based factors influence educational wastage in public secondary schools in Mbooni West Sub-County in Makueni County.

5.3 Conclusion

The study concludes that socio-economic factors, student-based and community-based factors influence educational wastage in public secondary schools in Mbooni West Sub-County in Makueni County. Socio-economic factors which were investigated through family income, parental level of education and health status of the student had a mean of 3.542which generally indicated that socio-economic factors influence educational wastage. Student based characteristics investigated through academic ability of the student, drug abuse, peer influence and teenage pregnancies had a mean of 3.7359 which generally indicated that student based characteristics influence educational wastage. Community based factors investigated through community environment, educational status of the community and communication and support given to the school by the community had a mean of 3.6508 which indicated that community based factors influence educational wastage. Further, the study concludes that school-based factors do not influence wastage in public secondary schools in Mbooni West Sub County. This was investigated through inadequate teachers, insufficient physical facilities, insufficient instructional resources and lack of motivation of teachers which yielded a mean of 2.7619 generally indicating that school based factors do not influence educational wastage in Mbooni West Sub County. From the above findings of this study, student based characteristics had the highest mean (3.7359) then community based factors (3.6508) and finally the socio-economic factors (3.542) as factors that influence educational wastage in Mbooni West Sub County.

5.4 Recommendations of the Study

Based on the findings, the researcher recommends that:

The finding of the study reveal that based on socio economic factors family income and parental level of education are significant influencers of educational wastage. Therefore, secondary schools should factor in the social and economic factors while establishing the factors causing wastage and solving them. The economic status of households may affect student turn out due to inability to meet financial requirement by the schools. Parents should therefore, be sensitized on the importance of supporting their children's education to ensure completion.

Based on student based factors, the study reveals that student based characteristics are major influencers of educational wastage. The school management should therefore monitor student based factors that are likely to affect the students negatively, such as peer pressure, lack of motivation due to poor academic performance, drug abuse and teenage pregnancies hence counselling in the most effective manner.

The study also reveals that community based factors are significant influencers of educational wastage. School management should consider these factors since the culture of the community is a life-long attribute and at the same time likely to influence students turn out negatively as a result of the values and norms inculcated. Communities around schools should be sensitized on their important role of supporting schools and creating a conducive environment that encourages learning and retention of learners in school. The schools should welcome community participation.

Finally, the study reveals that school based factors do not influence educational wastage in Mbooni West Sub County. Other research findings have found school based factors to

be significant in influencing educational wastage. This may mean that school management in public secondary schools in Mbooni West Sub County do not focus on school based factors as they do with the other factors under investigation. Therefore, school management in Mbooni West Sub County should be sensitized on educational wastage and the need to focus on school based factors that could be an underlying cause of education wastage in the effort to curb wastage in education.

5.5 Suggestions for Further Research

i. The study focused only on four factors; however, other factors not included in the study may affect educational wastage. Therefore, future researchers should consider replicating the study using other variables not included in the study.

ii. The scope was limited to Mbooni West Sub County; future studies may consider other scopes or counties for comparison purposes.

iii. Based on methodology the study was descriptive in nature, future researchers at advanced levels, should consider more in-depth analysis.

iv. Further research should be done on school based factors to establish whether it influences educational wastage in the Sub County.

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APPENDICES

APPENDIX A: LETTER OF INTRODUCTION TO THE RESPONDENTS

ANNE .N. ANTHONY

MACHAKOS UNIVERSITY

CELL PHONE NO. 0719 796216

Dear Sir/ Madam,

RE: ACADEMIC RESEARCH

I am a Master of Education student at Machakos University conducting a study on the ‘’**Influence of selected factors on educational wastage in public secondary schools in Mbooni West Sub-County’’.** I am kindly requesting for your assistance and cooperation in collecting information regarding this study by completing the attached questionnaire. Your responses will only be used for the purpose of this study and will be treated confidentially.

Please give your honest and accurate information, your cooperation will be highly appreciated.

Yours faithfully

Anne N. Anthony

APPENDIX B

PROFORMA FOR THE SUB-COUNTY DIRECTOR OF EDUCATION

This study seeks to investigate the factors that influence educational wastage in public secondary schools in Mbooni West Sub-County. The information you provide will be kept confidential and will only be used for the purpose of this study.

1. What is the total number of public secondary schools in the Sub-County? ……..

2. How many schools are?

a)National…….. b) Extra County…… c) County……d)Sub-County……

3. Indicate how many schools are

a) Boys boarding……b) Girls boarding……c)Mixed Boarding…….

d) Mixed day……. d) Mixed day and boarding.....

4. Indicate the enrolment by gender for 2014-2017 cohort

	Boys	girls	Total
Form 1 (2014)			
Form 2(2015)			
Form 3(2016)			
Form4(2017)			

5. Indicate repeaters by gender for 2014-2017 cohort

	Boys	girls	Total
Form 1 (2014)			
Form 2(2015)			
Form 3(2016)			
Form4(2017)			

Comment on the repetition trend……..

……..

6. Indicate the drop outs by gender for 2014-2017 cohort

	Boys	girls	Total
Form 1 (2014)			
Form 2(2015)			
Form 3(2016)			
Form4(2017)			

Comment on the dropout trend……..

……...

Thank you

APPENDIX C: QUESTIONNAIRE FOR PRINCIPALS

This study seeks to establish the factors that influence educational wastage in public secondary schools in Mbooni West Sub-County. The information you provide will be kept confidential and will solely be used for the purpose of this study.

SECTION A: Personal Information

Kindly tick where appropriate (√)

1. Gender; Male ☐ Female ☐

2. Age; a) Below 35 years ☐ b) 36-40 ☐ c) 41-45 ☐ d) 46-50 ☐

e) 51 and above ☐

3. Academic Level; a) PhD ☐ b) Masters ☐ c) Bachelors ☐

d) Diploma ☐

4. Indicate your position in the school; Principal ☐ Deputy Principal ☐

5. Indicate your professional experience; 1-5 years ☐ 6-10 years 11-15 years ☐

16 years and above ☐

6. Please indicate the level of agreement with the nature of wastage in your school on a scale of 1-5 where; 1- strongly disagree, 2-disagree, 3-neutral, 4-agree and 5- strongly agree.

Nature of wastage	5	4	3	2	1
Repetition					
Dropping out					
Poor academic performance					

SECTION B: Influence of socio-economic factors

Indicate to what extent the following socio-economic factors influence wastage in your school on a scale of 1-5 where; 1- strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree.

Factor	5	4	3	2	1
Family income					
Parental level of education					
Health Status					

SECTION C: Influence of Student based factors

Indicate the extent to which the following student based factors have influenced wastage on a scale of 1-5 where; 1- strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree.

Factor	5	4	3	2	1
Academic ability					
Drug abuse					
Peer influence					
Teenage Pregnancies					

SECTION D: Influence of School Based Factors

Indicate the extent to which the following school based factors have influenced wastage on a scale of 1-5 where; 1- strongly disagree, 2-disagree, 3-neutral, 4-agree and 5- strongly agree.

Factor	5	4	3	2	1
Inadequate teachers					
Insufficient Physical Facilities					
Insufficient Instructional resources					
Lack of motivation of teachers					

SECTION E: Influence of Community Based Factors

1. Indicate to what extent the following community based factors influence wastage on a scale of 1-5 where; 1- strongly disagree, 2-disagree, 3-neutral, 4-agree and 5- strongly agree

Factors	5	4	3	2	1
Community environment					
Educational status					
Communication and support given by the community					

2. In your opinion, what should be done to manage wastage? .....

……

Thank you.

APPENDIX D: QUESTIONNAIRE FOR ACADEMIC DEANS

This study seeks to establish the factors that influence educational wastage in public secondary schools in Mbooni West Sub-County. The information you provide will be kept confidential and will solely be used for the purpose of this study.

SECTION A: Personal Information

Kindly tick where appropriate (√)

1. Gender; Male ☐ Female ☐

2. Age; a) Below 35 years ☐ b) 36-40 ☐ c) 41-45 ☐ d) 46-50 ☐

e) 51 and above ☐

3. Academic Level; a) PhD ☐ b) Masters ☐ c) Bachelors ☐

d) Diploma ☐

4. Indicate your professional experience; 1-5 years ☐ 6-10 years ☐ 11-15 years ☐

16 years and above ☐

5. Please indicate the level of agreement with the nature of wastage in your school on a scale of 1-5 where; 1- strongly disagree, 2-disagree, 3-neutral, 4-agree and 5- strongly agree.

Nature of wastage	5	4	3	2	1
Repetition					
Dropping out					
Poor academic performance					

6. Indicate repeaters by gender for 2014-2017 cohort

	Boys	girls	Total
Form 1 (2014)			
Form 2(2015)			
Form 3(2016)			
Form4(2017)			

Comment on the repetition trend……..

……..

7. Indicate the drop outs by gender for 2014-2017 cohort

	Boys	girls	Total
Form 1 (2014)			
Form 2(2015)			
Form 3(2016)			
Form4(2017)			

Comment on the dropout trend……..

……...

SECTION B: Influence of socio-economic factors

Indicate to what extent the following socio-economic factors influence wastage in your school on a scale of 1-5 where; 1- strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree.

Factor	5	4	3	2	1
Family income					
Parental level of education					
Health Status					

SECTION C: Influence of Student based factors

Indicate the extent to which the following student based factors have influenced wastage on a scale of 1-5 where; 1- strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree.

Factor	5	4	3	2	1
Academic ability					
Drug abuse					
Peer influence					
Teenage Pregnancies					

SECTION D: Influence of School Based Factors

Indicate the extent to which the following school based factors have influenced wastage on a scale of 1-5 where; 1- strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree.

Factor	5	4	3	2	1
Inadequate teachers					
Insufficient Physical Facilities					
Insufficient Instructional resources					
Lack of motivation of teachers					

SECTION E: Influence of Community Based Factors

1. Indicate to what extent the following community based factors influence wastage on a scale of 1-5 where; 1- strongly disagree, 2-disagree, 3-neutral, 4-agree and 5- strongly agree.

Factors	5	4	3	2	1
Community environment					
Educational status					
Communication and support given by the community					

2. In your opinion, what should be done to manage wastage? .....

……

Thank you.

APPENDIX E: QUESTIONNAIRE FOR CLASS TEACHERS

This study is investigating the factors that influence educational wastage in public secondary schools in Mbooni West Sub-County. Data collected will be treated with confidentiality. State responses in the spaces provided and do not write your name or TSC number.

SECTION A: Personal Information

1. Gender; Male ☐ Female ☐

2. Age; a) Below 25 years ☐ b) 26-30 ☐ c) 31-35 ☐

d) 36-40 ☐ e) 41-45 ☐ f) 46-50 ☐ g) 50 and above ☐

3. Academic Level; a) PhD ☐ b) Masters ☐ c) Bachelors d) Diploma ☐

4. Please indicate the level of agreement with the nature of wastage in your school on a scale of 1-5 where; 1- strongly disagree, 2-disagree, 3-neutral, 4-agree and 5- strongly agree.

Nature of wastage	5	4	3	2	1
Repetition					
Dropping out					
Poor academic performance					

5. Indicate repeaters by gender for 2014-2017 cohort

	Boys	girls	Total
Form 1 (2014)			
Form 2(2015)			
Form 3(2016)			
Form4(2017)			

Comment on the repetition trend……..

6. Indicate the drop outs by gender for 2014-2017 cohort

	Boys	girls	Total
Form 1 (2014)			
Form 2(2015)			
Form 3(2016)			
Form4(2017)			

Comment on the dropout trend……..

……...

SECTION B: Influence of socio-economic factors

Indicate to what extent the following socio-economic factors influence wastage on a scale of 1-5 where; 1- strongly disagree, 2-disagree, 3-neutral, 4-agree and 5- strongly agree.

Factor	5	4	3	2	1
Family income					
Parental level of education					
Health Status					

SECTION C: Influence of Student based factors

Indicate the extent to which the following student based factors have influenced wastage on a scale of 1-5 where; 1- strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree.

Factor	5	4	3	2	1
Academic ability					
Drug abuse					
Peer influence					
Teenage Pregnancies					

SECTION D: Influence of School Based Factors

Indicate the extent to which the following school based factors have influenced wastage on a scale of 1-5 where; 1- strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree.

Factor	5	4	3	2	1
Inadequate teachers					
Insufficient Physical Facilities					
Insufficient Instructional resources					
Lack of motivation of teachers					

SECTION E: Influence of Community Based Factors

Indicate to what extent the following community based factors influence wastage on a scale of 1-5 where; 1- strongly disagree, 2-disagree, 3-neutral, 4-agree and 5- strongly agree.

Factors	5	4	3	2	1
Community environment					
Educational status					
Communication and support given by the community					

In your opinion, what should be done to manage wastage? .....

.....

.....

Thank you.

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone:+254-20-2213471,
2241349,3310571,2219420
Fax:+254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No. **NACOSTI/P/19/36052/28487**

Date: **3rd April 2019**

Anne Nthangu Anthony
Machakos University
P.O. Box 136 – 90100
MACHAKOS.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Factors that influence educational wastage in public secondary schools in Mbooni West Sub-County, Makueni County"*** I am pleased to inform you that you have been authorized to undertake research in **Makueni County** for the period ending **1st April, 2020.**

You are advised to report to **the County Commissioner and the County Director of Education, Makueni County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

BONIFACE WANYAMA
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Makueni County.

The County Director of Education
Makueni County.

THIS IS TO CERTIFY THAT:
MS. ANNE NTHANGU ANTHONY
of MACHAKOS UNIVERSITY, 0-90133
TAWA,has been permitted to conduct
research in *Makueni County*

on the topic: *FACTORS THAT INFLUENCE EDUCATIONAL WASTAGE IN PUBLIC SECONDARY SCHOOLS IN MBOONI WEST SUB-COUNTY, MAKUENI COUNTY*

for the period ending:
1st April,2020

.....
Applicant's Signature

Permit No : NACOSTI/P/19/36052/28487
Date Of Issue : 3rd April,2019
Fee Recieved :Ksh 1000

.....
Director General
National Commission for Science, Technology & Innovation

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research Licenses is guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014.

CONDITIONS

1. The License is valid for the proposed research, location and specified period.
2. The License and any rights thereunder are non-transferable.
3. The Licensee shall inform the County Governor before commencement of the research.
4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies.
5. The License does not give authority to transfer research materials.
6. NACOSTI may monitor and evaluate the licensed research project.
7. The Licensee shall submit one hard copy and upload a soft copy of their final report within one year of completion of the research.
8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice.

National Commission for Science, Technology and innovation
P.O. Box 30623 - 00100, Nairobi, Kenya
TEL: 020 400 7000, 0713 788787, 0735 404245
Email: dg@nacosti.go.ke, registry@nacosti.go.ke
Website: www.nacosti.go.ke

REPUBLIC OF KENYA

NACOSTI

National Commission for Science, Technology and Innovation

RESEARCH LICENSE

Serial No.A 23854

CONDITIONS: see back page

MINISTRY OF EDUCATION

Telegrams: "EDUCATION",Mbooni

Telephone: Mbooni 0737-990642
Fax No: 020-2450580
Email: mbooniwestdeo@yahoo.com

SUB COUNTY DIRECTOR OF EDUCATION OFFICE
MBOONI WEST
P O BOX 200
KIKIMA

When replying please quote:

REF: MBNW /SCDE/VOL 2/211 **DATE 5th March 2019**

To All Principals,
Mbooni West Sub County.

RE: RESEARCH AUTHORIZATION

The bearer of this letter is a student from Machakos University, has been authorized to carry out research on **"The factors that influence Educational wastage in Public Secondary schools in the Sub County"** please give her the necessary assistance and support, plus accurate information to enable her carry out the research objectively and fairly.

Kindly give her the necessary assistance.

SUB-COUNTY DIRECTOR OF EDUCATION 07/03/2019 P.O. Box 200, KIKIMA MBOONI WEST

DAVID M. MBECA
SUB COUNTY DIRECTOR OF EDUCATION
MBOONI – WEST.