ESTABLISHING INTERNAL EFFICIENCY RELATED TO RETENTION AND COMPLETION IN SECONDARY EDUCATION USING 2003 – 2014 COHORTS IN NZAUI SUBCOUNTY, MAKUENI - KENYA

ANNAH WANEE WAMBUA
REG.NO. E55/CE/26305/2011

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JULY, 2015
DECLARATION

I declare that this research project is my original work and has not been presented for a degree in any other university or any other institution of higher learning for certification. This research project has been complemented by referenced sources duly acknowledged. Where text, data, graphics, pictures or tables have been borrowed from other sources, including the internet, these are specifically accredited and references cited in accordance with anti-plagiarism regulations.

ANNAH W. WAMBUA

DATE

This Project has been submitted for appraisal with our approval as University supervisors.

PROF. JOHN ALUKO ORODHO
Associate Professor of Education & Research
Department of Educational Management,
Policy and Curriculum Studies,
School of Education,
Kenyatta University

DATE

DR. THADDAEUS O. RUGAR
Lecturer,
Department of Educational Management,
Policy and Curriculum Studies,
School of Education,
Kenyatta University

DATE
DEDICATION

I dedicate this research project to my beloved sons, Daniel Mavinda, Samuel Noah and Phinehas Mumina, for their ultimate patience and sincere support during my entire Masters degree education program. Your love and motivation kept me strong when the going got tough. I owe you every success.
ACKNOWLEDGEMENTS

I whole heartedly acknowledge Almighty God for His love and providence that saw me through the entire period I was working on this project. Without Him I would not have come this far. I am also greatly indebted to my supervisors who tirelessly guided me in the process of writing this research project. Their guidance inspired me to carry on with the study and greatly contributed to the quality of my work. I cannot forget the contribution of all my lectures and colleagues in the School of Education, Kenyatta University, for assisting me in my study. The experience I shared with them has positively impacted on my life. I really appreciate all the respondents who made this study successful. Without their responses, this study would not have been fruitful. Special thanks is also to my dear husband, Kyalo M. Mutuku, who has assisted me both financially and otherwise while carrying out this study.
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<tbody>
<tr>
<td>AIDS</td>
<td>Acquired Immunodeficiency Syndrome</td>
</tr>
<tr>
<td>C &amp; G</td>
<td>Guidance and Counseling</td>
</tr>
<tr>
<td>EFA</td>
<td>Universal Education, Education for All</td>
</tr>
<tr>
<td>EO</td>
<td>Education Officer</td>
</tr>
<tr>
<td>FDSE</td>
<td>Free Day Secondary Education</td>
</tr>
<tr>
<td>FPE</td>
<td>Free Primary Education</td>
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<tr>
<td>GER</td>
<td>Gross Enrolment Rate</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
</tr>
<tr>
<td>KESSP</td>
<td>Kenya Education Sector Support Programme</td>
</tr>
<tr>
<td>KIE</td>
<td>Kenya Institute of Education</td>
</tr>
<tr>
<td>KU</td>
<td>Kenyatta University</td>
</tr>
<tr>
<td>MDGs</td>
<td>Millennium Development Goals</td>
</tr>
<tr>
<td>MOE</td>
<td>Ministry of Education,</td>
</tr>
<tr>
<td>NACOSTI</td>
<td>National Commission for Science, Technology and Innovation</td>
</tr>
<tr>
<td>NER</td>
<td>Net Enrolment Rate</td>
</tr>
<tr>
<td>PTR</td>
<td>Pupil Textbook Ratio</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
</tr>
<tr>
<td>UPE</td>
<td>Universal Primary Education</td>
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</table>
ABSTRACT

The purpose of this study was to establish the extent to which subsidized basic education has effect on internal efficiency in Nzaui Sub County, Makueni County, Kenya. The objectives of the study were to determine the effect of education financing policies on internal efficiency of secondary schools in Nzaui Sub County; identify the school based factors that may affect internal efficiency; identify family based factors that may affect internal efficiency; identify the mitigation measures and mechanisms that exist at secondary education level to enhance internal efficiency. This research adopted cross sectional research design. The population for study was teachers, head teachers and students in Nzaui Sub County in Makueni County. The target population was 400 teachers, 33 head teachers and 9120 students in 33 secondary schools in the Sub-County. Ten (10) Head teachers were purposively selected while 40 teachers and students were randomly sampled. The questionnaires were piloted with 1 head teacher, 3 teachers and 6 students from 3 secondary schools. Content validity, the extent to which instrument content which includes sentence structure and the questions, are suitable for the intended respondents. This study employed split half method to test the reliability of the instruments. Quantitative data coded, assigned labels to variables categories and entered into the computer. Frequency tables, percentages, and Column charts were used to present the information. Qualitative data was organized into thematic areas for easier interpretation. The study established that despite government policy of subsidized secondary education, the increase in poverty levels has made it difficult for parents to support education adequately although it was evident that different types of materials used in teaching and learning in secondary schools were available in almost all schools except that they were inadequate to influence efficiency. The cost of school-based instruction itself is a major factor as schools requires students in secondary schools to have uniforms, textbooks, and stationery. Further, the study established that family based factors that contributed to dropouts can be summed up as result of low income and high poverty levels. The study concluded that, despite the Government policy of subsidized secondary education, amount of resources spent on education influences its quality and the amount of learning achieved hence internal efficiency. Recommendation based on the findings were that; the ministry of Education would consider further comprehensive policy review on number of subjects offered in secondary school to weed out inefficiencies and stop wastage if possible. The 8-4-4 curriculum, where students do not specialize in subjects should be reviewed and if possible, be reduced. A study on how to peg disbursement of free learning funds on regional poverty index could also add to this body of knowledge and mitigate educational wastage due to poverty.
CHAPTER ONE
INTRODUCTION AND CONTEXT OF THE STUDY

1.1 Introduction

This section of the study gives details on the Background to the Study, Statement of the Problem, Purpose of the Study, Objectives of the Study, Research Questions, and Significance of the Study, Theoretical and Conceptual Frameworks, and Assumptions of the Study, Limitation of the Study and Operational Definition of Key Terms.

1.2 Background to the Study

As adopted United Nations Universal Declaration of Human Rights and proclaimed by General Assembly resolution 217 A (III) of 10 December 1948, everyone has the right to education. Fourteen years ago the Educations for All (EFA) goals was adopted by international community at the World Forum held in Dakar, Senegal in April 2000 (Republic of Kenya/UNESCO, 2012). Again the Millennium Development Goals (MDGs) advocates for Universal Education, Education For All (EFA) by 2015 and the goal for industrialization by 2030 and vision 2030 puts education as a major pillar hence calls for intensified and deliberate efforts aimed at increasing access, equity and improve relevance of education at all levels. This broad Vision of education and the holistic approach to sector development was fully embraced by Kenya as a critical vehicle for realizing Vision 2030, the road map for development (Odhiambo, 2010). Again there is advocacy for Universal Education in Millennium Development Goals (MDGs) that is Education For All (EFA) by 2015 and the goal for industrialization by 2030 and vision 2030 puts education as a major pillar hence calls for intensified and deliberate efforts aimed at increasing
improved relevance of education at all levels through access and equity. According to Odhiambo (2010) Kenya as a country embraced a broad Vision of education as a critical vehicle and the road map for development for realizing Vision 2030 through a holistic approach to sector development.

The Constitution of Kenya 2010 unequivocally promises all Kenyans full potential of education for each and every child, youth and adult in the nation based on unprecedented opportunity to capitalize on the progress made thus far in order to exploit the full potential of education for each and every child, youth and adult in the nation (Republic of Kenya, 2010, 2012). In addition, the Basic Education Act 2013 reiterates the fact that basic education which has been made free and compulsory in Kenya should be operationalized through the legal framework enshrined in the Act (Republic of Kenya, 2012). Both the Constitution 2010 and Basic Education Act 2013 guarantees and provides legal mechanisms of ensuring that every Kenyan citizen has a right to economic and social benefits that hinge upon the citizens access to, and performance in, education. It also gives right to get access to basic education and other application of knowledge, attitude and skills gained through the educational experience (Republic of Kenya, 2013). The researcher takes cognizance of the constitution of Kenya that guarantees free basic education hence the need to establish whether it affects internal efficiency.

Internal efficiency is defined by Education economists as “comprising the amount of learning achieved during school age attendance, compared to the resources provided the percentage of entering students who complete the course is often used as (its) measure” Wolff (1984) and the study use this as the measure of internal
efficiency. The promotion, repetition and drop-out rate of an education system in an institution reveals the level of internal efficiency. In this study, internal efficiency has been based on the extent to which resources are used to achieve school objectives. In education and development in Africa, internal efficiency have become part and parcel of the debate on reform. The desire to promote access to education by increasing education opportunities to school-age population has camouflaged efficiency of education. The focus of many countries in Africa have shifted to increasing resources to the education sector in a bid to achieve universal primary education (UPE) by 2000, in order to achieve a goal which seems to be unattainable. Abagi and Odipo (1997) argues that the problem of a trade-off between enhancing the efficiency of the education sector and increasing primary, secondary and tertiary education faces countries like Kenya and most developing countries. This has made the researcher to establish extent to which this trade off still affects internal efficiency particularly at the secondary school level and suggest mitigation measures.

In Kenya, there were reforms and innovations in the education sector including the Free Primary Education (FPE) and Free Day-Secondary Education (FDSE) implementation of which have accelerated enrollment of both primary and secondary schools students in Kenya (Republic of Kenya, 2012). There is little doubt that these innovations have led to the improvement of quality retention, access equity, relevance, and overall efficiency of the education sector at national level (UNESCO, 2012). Hopefully, at the national level, it can be concluded that achievement of EFA is within reach in Kenya there by putting the country on track. On the other hand, the report also paints a negative picture as it laments that there
still exist numerous challenges that need to be overcome in order to attain internal efficiency in managing education for all children, youth and adults (Republic of Kenya/UNESCO, 2012). Despite Government support towards Free Primary Education (FPE) and Free Day Secondary Education (FDSE) implementation, there still exists significant geographical disparities in access and achievement including Nzaui Sub County in Makueni County which prompted this study.

The rate of access, repetition and drop in an institution, reveals internal efficiency. According to MoE (2012), the pupil completion rate for standard 8 pupils dropped from 83.2 percent in 2009 to 76.8 per cent in 2010. This further declined to 74.6 per cent in 2011. The declines in completions rates could be attributed to school dropouts and repetitions. In the year 2009, the transition rate from primary to secondary has been increasing over the years, from 66.9 percent (64.1 that is 13 percent for male and 69.1 percent for female), further increasing to 72.5 percent (68.9 percent for male and 75.3 percent for female) in 2010 and 73.3 per cent (68.9 per cent for male and 75.3 per cent for female) in 2011 against a target of 85. However, the NER recorded a drop from in 2009, it was 35.8 percent (36.5 percent for boys and 35.1 percent for girls) to 32.0 percent (32.4 percent for boys and 32.9 percent for girls) in the year 2010 and the increased to 32.7 per cent (32.6 33per cent for boys and 33.1 per cent for girls) (Ministry of Education, 2012). The gradual increase in enrollment in primary school and erratic NER in secondary schools based on the above figures prompted the researcher to establish the causes of irregular NER and its impact on Internal Efficiency.
A close analysis of the data in Nzaui Sub County as shown in (Table 1.1) reveals that primary to secondary education has had internal efficiency problems of low completion and high repetition rates, due to the high wastage resulting to high cumulative loss or educational wastage students as a result of students failing to move on to the next, class. In 2003, the enrolments for girls and boys in Standard 1 were 2674 and 2413 respectively. However, there was dropout rate of about 55.6% and 66.3% eight years later for boys and girls, respectively as only 1488 boys and 1600 girls were enrolled in Standard 8. In 2011, the enrolment of boys and girls in secondary schools in Nzaui Sub County in form one were 1423 and 1542 respectively but four years later in 2014, only 1183 and 1202 girls a dropout rate of 87.1% and 82.8% respectively in form four as shown in (Table 1.1) below.

Table 1.1: Sub-County Students/Pupil Completion Rate (Nzaui Sub County)

<table>
<thead>
<tr>
<th>Year</th>
<th>Class</th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>2003</td>
<td>Standard 1</td>
<td>2674</td>
<td></td>
<td>2413</td>
</tr>
<tr>
<td>2010</td>
<td>Standard 8</td>
<td>1488</td>
<td>55.6</td>
<td>1600</td>
</tr>
<tr>
<td>2011</td>
<td>Form 1</td>
<td>1423</td>
<td>95.6</td>
<td>1542</td>
</tr>
<tr>
<td>2012</td>
<td>Form 2</td>
<td>1418</td>
<td>99.6</td>
<td>1536</td>
</tr>
<tr>
<td>2013</td>
<td>Form 3</td>
<td>1358</td>
<td>95.4</td>
<td>1452</td>
</tr>
<tr>
<td>2014</td>
<td>Form 4</td>
<td>1183</td>
<td>87.1</td>
<td>1202</td>
</tr>
</tbody>
</table>

Source: DEOs Office Nzaui Sub County (2014)

Table 1.1 shows that in the last decade, there has been decline in national completion rate for both girls and boys which created excess capacity in the system.
in terms of teachers due to persistent drop-out rates. There is an expected to increase of drop-out rate to 65% if the situation is not checked immediately, which means that only about 35% of pupils who start primary schooling will be completing in three year's time if enrolled to form one (Orodho et al, 2013). The trend if not mitigated, may contradict the national goal of promoting literacy and fighting against ignorance worsening the situation. The factors that affect internal efficiency are divided into three categories including education financing policies, school-based factors and family based factors in this study.

The existing literature failed to capture and map out learning time lapse and classroom management, and how they affect learning. There is no doubt that behavior of school managers, classroom management, school principals' leadership qualities and the use of time in school, have a direct impact on school efficiency because they have effect on the students' learning and performance in examinations. Therefore, there is need to integrate the examination of time use, classroom management and the conventional efficiency analysis. According to Sifuna (1997) there has been a structural and financial impact on schools, teachers, pupils and parents as a result of the perception of efficiency in education through an examination index. There have been cases where pupils are forced to repeat classes or leave a particular school they think that is not good enough without justification.

Therefore, several policy-related questions have been raised concerning the same including: the worth of incurring more costs in education, including the efficient utilization of the recommended time in school; the questions include the efficient utilization of teachers' time and the necessity of extra tuition, just to mention a few.
This study will provide some answers to these questions. Therefore whether the school efficiency should be depended on how education system operates to meet its goals and whether when more education outputs are produced at given education, the internal efficiency of education also improves. In this study, the three categories of factors that may cause internal inefficiency in secondary schools education will be evaluated taking cognizance that their impact variation from region to region. Low completion rates causing inefficiency through serious waste is a concern which must be mitigated hence the need for the study. This study was therefore justified as it may provide current indicators of efficiency through examination of terms of access, completion rates and exactly determines the level of primary to secondary educational wastage which affects internal efficiency.

1.3 Statement of the Problem

Kenya faces problem of inefficiency making the completion rates to remain very low or less than 50 per cent in the education system as a result of teaching-learning time not being utilized efficiently. This is due to education policies and management processes, misallocation of resources to educational levels; school based factors—teacher’s attitudes, time utilization, school environment; and household based factors - poverty, socio-cultural factors, and gender issues. Lack of completion of primary level by pupils due to drop out at various stages of the education system, especially in Standards 8 and form 1 is a matter of concern. The level of wastage in secondary education is still high in Nzaui Sub County as shown in Table 1.1 despite the free primary and subsidized secondary education in many parts of the country including Nzaui Sub County. There is a need to fully understand internal efficiency for policy makers, stake-holders and all education stakeholders to know and focus
on critical elements which could boost internal efficiency and so the knowledge about this concept of internal efficiency has included rates of repetition, drop-out and completion and not only examination results. With subsidized basic education, the focus on examination results, as the only index of school efficiency is an indication of the existing policy gap in education hence the need for in depth study on internal efficiency particularly in secondary schools. This study therefore determined the effect of education financing policies and identified the school based factors, family based factors that may affect internal efficiency and made suggestions on mitigation to enhance internal efficiency based on study findings.

1.4 Purpose of the Study
The purpose of the study was to correlates of internal efficiency on subsidized basic education in Nzau Sub County, Makueni County for 2003 – 2014 cohorts.

1.5 Objectives of the Study
The study objectives are to:

i. Determine the effect of education financing policies on internal efficiency of secondary schools in Nzau Sub County.

ii. Identify the school based factors that may affect internal efficiency in secondary schools in Nzau Sub County.

iii. Identify family based factors that may affect internal efficiency in secondary schools in Nzau Sub County.

iv. Identify the mitigation measures and mechanisms that exist at secondary education level to enhance internal efficiency.
1.6 Research Questions

The research was guided by the following questions:

i. What is the effect of education financing policies on internal efficiency of secondary schools in Sub County?

ii. What is the school based factors that may affect internal efficiency in secondary schools in Sub County?

iii. What is family based factors that may affect internal efficiency in secondary schools in Sub County?

iv. What are the mitigation measures and mechanisms that exist at secondary education level to enhance internal efficiency

1.7 Significance of the Study

By establishing whether the number of students enrolled in proceeding class get promoted to the next level, the study would give vital information which may help in minimizing or completely eradicating wastage in Education system in Kenya. The study would inform educational reform initiatives in Kenya through its contribute on conceptualization of internal efficiency in education. It would also provide current indicators of efficiency through examination of terms of access, completion rates; utilization of Teaching-Learning contact hours and exactly determines the level of basic educational wastage which affects internal efficiency. The study findings may help to analyze the saving mechanisms that exist at secondary education level. This study may be of use to various educational stakeholders in Kenya, The findings may be useful to the Ministry of Education by using them to formulate policies that enhance internal efficiency in public secondary schools. With increasing household poverty and increasing demand for secondary education, the researcher feel that the
findings would establish the benefits of public day secondary schools with emphasis on their low total cost, low opportunity costs and their ability to utilize locally available personnel and other resources.

1.8 Delimitations and Limitation of the Study

1.8.1 Delimitation
To measure internal efficiency, this study was delimited to school attendance and amount of learning achieved by during that time, in comparison with the resources provided and the percentage of student in public secondary schools who complete form one to form four in the years 2011-2014. The study was also carried within Nzaui Sub County meaning the primary data was collected within the district. To collect data, the study used questionnaires and interview schedules and not any other instruments of data collection.

1.8.2 Limitation of the Study
Through the review of literature, some data on rates of completion, dropout, and repetition were only available at the national level; this was a challenge getting similar data from individual school levels due to recording keeping ability per school. The reason for this was that Ministry of Education in Kenya outlawed class repetition in both primary and secondary schools. As a mitigation measure, this study used most secondary data obtained from the ministry and the Central Bureau of Statistics to analyze student’s participation in primary and secondary schools in Nzaui Sub County. Even though there are variations from region to region regarding the three categories of factors that may cause internal inefficiency in secondary schools education, this study cannot generalize the findings of this study for the whole country.
1.9 Assumptions of the Study

The study assumed that

i. Information given by the respondents would be genuine, honest and reliable.

ii. All the respondents would understand the reasons for inefficiency in their schools.

iii. There would be underlying reasons why students who enroll at form I repeat, would be pushed out or drop out of school.

iv. The reasons and rate of repetitions, dropout leading to wastage would be the same for all the schools in the division of study.

1.10 Theoretical and Conceptual Framework of the Study

1.10.1 Theoretical Framework of the Study

This study would be based on the Human Capital Theory (Schultz, 1963). According to Economist Theodore Schultz (1963), the theory states that human beings invest in themselves by means of education, training or other activities which raise their life time earnings. He analyzed educational expenditure as a form of investment. Further, Becker (1964) developed the theory of human capital formation and analyzed the rate of return to investment in education and training.

The theory has been found necessary to guide this study for households and other stakeholders spend on their children's in diverse ways, not for the sake of present enjoyment; but for the sake of future pecuniary and non pecuniary returns. The Human Capital theory tends to be more optimistic about the ability of the economy to put additional skill to good use if the price employers must pay for its declines. It
focuses on what determines internal efficiency when physical facilities, financial resources and time are considered as major educational inputs. The theory states that people spend on themselves not for the sake of present enjoyment, but for the sake of future returns. It starts with the premise that investment of the student's time, energy and money in learning yield benefits over many years.

Expected benefits influence the decision of some households and the students about whether to attend, what to study, and how hard to study. The school operates within the economic, social and political environment. It utilizes financial, human and physical resources within a given time, which are inputs, in order to process outputs (Knowledge, skills and attitudes), which are required to benefit the society. Hence for all the inputs that are invested, quality finished human resources are expected. This would be in form of students who successfully complete secondary school education who would turn their skills into work of economic value to society. The study fits into this theory since financial and human resources are set aside for secondary education, and they can only be profitable when the process is efficient and does not allow for wastage of scarce resources that can affect internal efficiency.

1.10.2 Conceptual Framework of the Study

Smyth (2004) an educational researcher structured conceptual frameworks, from a set of broad ideas and theories that help a researcher to properly identify the problem they are looking at, frame their questions and find suitable literature. Most academic research uses a conceptual framework at the outset because it helps the researcher to clarify his research question and aims. For this study conceptual framework was based on three variables of educational financing policies, school based factors and family/societal factors as shown in Figure 1.1 below.
The three categories of education policy, school based factors and family factors have their effect and impact variations from one region to the other may still cause internal inefficiency in secondary education, form the independent variables for this study. The inefficiency caused by low completion rates, repetitions and dropouts (dependent variable) is an educational wastage which must be corrected to enhance internal efficiency. The education stakeholders in Government should come up with viable policy initiatives to save the secondary school education system from inefficiency.
1.11 Operational Definition of Key Terms

**Basic Education:** Refers to the whole range of educational activities taking place in various settings that aim to meet basic learning needs from primary to secondary education.

**Costs of education:** Utilized resources including government expenditure on education process, household spending on education and the foregone opportunities of schooling.

**Drop out:** Leaving school before completion of the educational cycle. The term dropout puts inordinate blame on the individual.

**Inputs:** Resources that are used to improve internal efficiency in basic education such as textbooks, instructional material, staff, money and school physical resources.

**Internal Efficiency:** Relationship between inputs and outputs within the education system based on the extent to which inputs are used to achieve school objectives.

**Outputs:** The outcomes as a result of inputs like repetition, drop-out rates and completion rates.

**Repetition:** Times spent doing the same work in the same class or grade usually an academic year.

**Wastage:** The occasion when an education system is affected by dropouts and repetition.
CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter focuses on the review of literature related to the effect of education financing policies on internal efficiency, school based factors that may affect internal; family based factors that may affect internal efficiency and mitigation measures and mechanisms that exist at secondary education level to enhance internal efficiency as laid down in the study objectives.

2.2 Effect of Education Financing Policies on Internal Efficiency

Ministry of Education in Kenya outlines the policy framework in the Education Sector Support Programme (KESSP) (2005-2010) which is a publication that makes education more accessible to all. Wastage arising from dropout as captured in the programme notes that is a serious challenge that must be addressed so as to ensure that resources in terms of time, energy, money and opportunity cost are not wasted. The declining participation rates and wastage that result from dropping out are issues of concern to the government and every effort is being made to address them.

A study conducted by Chabari (2010) on the challenges facing effective implementation of the FDSE policy indicated that the policy had led to increased enrolment to the extent that there was overcrowding in classrooms. He also found that the number of streams had increased in a majority of the schools (62.5%) that he had included in the sample. This study seeks to establish whether or not enrolment and number of streams in day schools has increased under the FDSE policy. Adoption of cost sharing policy in education has witnessed the return to
communities and parents a substantial proportion of financial responsibility for schooling.

Many parents and communities have not been able to meet the cost requirements under cost sharing policy due to increased poverty levels which has made it difficult for communities and parents to adequately support education making education beyond the reach of many households which has far reaching effect on internal efficiency Kiveu et al, (2009) as a result of higher poverty levels rise in the country. Parents are therefore unable to feed their children properly and provide adequate health services due to the increased level of poverty. Children whose parents are unable to afford costs of instructional materials, school uniforms, tuition fees, and activity fees tend to go to school irregularly which in the long run, drop out of school if these circumstances persists. Due limited or lack of resources, the result is reduced returns from education leading to inability of parents and lack of motivation to educate their children leading to negative effects on children’s school internal efficiency.

In Kenya, like in other developing countries, public subsidization and expansion of secondary education are taking place against a background of inadequate financial resources. One of the strategies that needs to be employed in order to expand secondary education while constrained by resources, is improving internal efficiency of education systems (Yin & Wang, 2005). Some measures of improving efficiency would include: decreasing repetition and dropout; increasing class size; and improved utilization of teaching-contact hours. If, for instance, a system has high repetition rates then it means that a lot of scarce resources are going to waste since
the same amount of resources could have been spent on a larger number of children if there was no repetition.

The FDSE policy was intended to make secondary education more affordable and to improve academic achievement of learners. These were to be achieved through reduced user fees and provision of textbooks and other learning materials. This reduction in user fees was quite significant in day schools. Under the cost sharing policy day schools were found to be internally inefficient (Orodho et al, 2013). Some of the notable inefficiencies included high rates of absenteeism, under enrolment and poor performance in national examinations. According to Oyugi (2010), the FDSE policy has not addressed these inefficiencies thereby making day schools more internally inefficient. Repetition is a form of inefficiency that has been linked with reduced cost of schooling in day schools, and its extent under the FDSE policy requires investigation. This study therefore evaluated the weakness arising from education financing policies that affected internal efficiency in secondary schools in Nzaui Sub County. It established that despite Government policy of subsidized secondary education, all schools agreed that quality has been compromised. This has led to lack of motivation by teachers, large and congested classes and low contact time with students among other things.

2.3 School Based Factors and Internal Efficiency

To establish school based factors that affects internal efficiency there have been cited literature Achoka (2007) , Chabari (2010) pointing to high drop-outs, and hence low completion rates as being responsible for low level of internal efficiency in primary schools in most African countries. One of the major factors cited in the
cost of school-based instruction itself and therefore schools require pupils to have textbooks, stationery uniforms, and pay tuition and activity fees. Most parents cannot afford most of these requirements and mostly find themselves under pressure by the schools' administrators which leads to frustrations on these pupils which eventually affect their academic performance (Kiveu & Maiyo, 2009). Not only does it affect their performance, they also lose interest in education and eventually drop out of school.

In Kenya many secondary school faces internal efficiency challenges leading to low transition rates in both primary and secondary schools as well as high dropout rates. According to ROK, (2003) low internal efficiency levels is experienced as evidenced by high dropout rates and low progression rates. According Achoka, (2007) school size is referred to as school being either single stream or more than one stream and the school regime as where a school is either boarding or day. The study referred school type as a school is single sex or coeducational largely affect dropout and progression rates. The study noted primary and secondary schools dropout due early marriages, inability to pay school fees were caused by poverty, hazards of HIV/AIDS pandemic, violence and drug-abuse (ROK, 2003). Therefore an efficient system of education would considerably reduce dropout rates and relieve households of heavy burdens. This can be actualized through an appropriate policy measures and political will which ensure that education is put at the core of development.

Association for the Development of Education in Africa (2006) carried out a study that the indicated that internal efficiency in schools was caused by a number of obstacles to high level achievement. Internal efficiency was mostly affected by
delays in the acquisition of inputs to a large degree for instance; some schools would
still take two to three months to avail to the students even after the resources were
made available. Increased student numbers leading to shortages of teachers was also
a matter of great concern. According to the study, this problem was further enhanced
by the fact that governments have been replacing only those teachers who die, resign
or retire. Budgetary constraints have severely held back in the ability of most
Governments to maintain positive trends in education in particular.

According to the World Bank (2005) the availability of textbooks, as inputs in
education, play a crucial role in the determination of educational outputs and
outcomes and has been found to be the most consistently positive determinant of
academic achievement. Survey data conducted by UNESCO indicate that 4 primary
school pupils in public schools in Kenya on average share one textbook (pupil-
textbook ratio of 4:1) in every subject offered (UNESCO, 2005). Class sizes/school
sizes have an effect on utilization of teachers. Teacher salary expenditures constitute
a huge proportion of government expenditure on education: Ministry of Education
currently has a teachers’ wage bill of 73 percent of the recurrent budget (ROK,
2012). Utilization of teachers therefore becomes a major consideration when
determining internal efficiency of an education system or of an individual
institution. Low PTR is a reason for low internal efficiency.

Underutilization of resources has led to low enrolment in a class, both physical and
human-particularly the teacher. A teacher attending to a small class is being
underutilized since she/he could be earning the same pay in a month and served
many more pupils. However, it is factual that classes may become too large to a
point where classroom management and effective teaching become difficult which
may in turn affect academic achievement of learners (Abagi & Odipo, 1997). All in all, like in Kenya where resources are limited, it makes sense to have a class size of about 45 as suggested by the World Bank.

Oyugi (2010) opines that low transition rates, low gross enrolment rate (GER) and low net enrolment in Secondary education in Kenya is characterized by low participation rates as indicated by rate (NER) For instance, in 2009, NER was approximately 50 percent while the primary to secondary school transition rate was equally low at 55 percent (World Bank, 2009; MOE, 2010). The two major factors constraining secondary school enrolments in Kenya are insufficient school supply since the number of primary schools and affordability of secondary schools does not matched (Ohba, 2009). The cost of secondary education, more so, reduces the chances of children from poor households enrolling and/or remaining in school (Mwangi, 2012).

Studies Ndaru hutse (2005), Ogola (2011) indicate that user fees negatively affect attendance rates. Kiveu and Mayio (2009) also found absenteeism to be a cause of delayed coverage of the syllabus because teachers were made to repeat what they had already taught when those students who had been sent home for fees resumed. Failure to cover the syllabus contributed to poor performance. A study which was carried out in Kenya found that student’s absenteeism was around an average 31% and was attributable to school fee-related issues (Mukudi, 2004). This agrees with a research by Boyle, Brock, Mace and Sibbons (2002) found that the inability to pay school fees meant children withdrawing from school for periods of time, however temporarily in some areas of Uganda and Zambia. Utilization of stipulated teacher-pupil contact hours will have an effect on syllabus coverage. Waime (2003) found
that most day schools did not manage to cover the syllabus and one of the major reasons given for this was absenteeism due to non-payment of fees. Schools that were studied had an average mean grade of ‘D’ for three years in a row. The schools were also found to have high textbook to pupil ratios.

Ndaruhutse (2005) categorizes measures of internal efficiency into: student efficiency measures; staff efficiency measures; and cost-efficiency measures. Student efficiency through the education system measures how efficiently a given cohort is making transition. Primary student efficiency is measured on promotion, repetition and dropout rates. Completion rate as a measure of student efficiency incorporates these three measures giving one overview point of student flow through an education system from start to finish. Staff efficiency measures are: student-staff ratio; and teaching-contact hours. Student-staff ratio gives how well one type of input is used in the education process while teaching-contact hours refer to the average number of hours the students are taught in a week and as a measure of internal efficiency it indicates how staff is using their time.

2.4 Family Based Factors on Internal Efficiency

According to Economic Survey (1997) the rise in the level of poverty in Kenya and indicated that 46.8% of Kenyans live below the poverty line. This is one of the major factors which discourage parents from investing in their children’s education because many parents and by extension, many communities could not afford the ever-increasing cost of schooling adequately and therefore were not in a position take their children to school. Parents are further expected to meet 95% of recurrent costs of their children’s education as a result of the introduction of the cost-sharing policy in 1988. Abagi (1997) and MoE (1996) found out that many Kenyans are
unable to meet the cost of education and can no longer have access to education because level of poverty which has also gone up in the country and the costs of education and training at all levels also continued to rise.

Child labour has become crucial for family survival as the level of poverty rises due to child labour is increasingly employed in agriculture, domestic activities, petty trade rural and urban Kenya (UNESCO, 2012). Children in poor households in some cases, have to carefully analyze the opportunity costs of education which has made some parents to continue sending their children particularly daughters, into the labour market—mainly as domestic workers in urban centres. In coastal region of Kenya, boys in rich agricultural areas abandon school in order to earn money as beach-boys and tea or coffee pickers, respectively and this happens in a situation where parents and children do not see its immediate benefits or have negative attitudes towards education and the consequence is a high drop-out rate.

Factors, such as initiation ceremonies and gender socialization which are social-cultural and religious in nature are additional factors which are responsible for pupils' failure to complete primary education. Some pupils are also pulled out of school to participate in initiation ceremonies in areas where traditional circumcision is still practiced (Wamae, 2003). Some pupils in those areas also develop negative attitudes towards teachers and school once initiated. In this connection, boys who are circumcised are not ready to be taught by women—whom they now consider inferior. Similarly, some initiated feel that they are now grownup women who should get married because in some communities, girls or boys expected to get married immediately after they have been initiated which puts pressure on them to leave school and meet traditional expectations.
Drop-out rates, particularly for girls, are still too high and this ensures a life of poverty for these girls, and many of them also end up being HIV positive because the male female power dynamics become even more slanted against them (Onyango, 2003). The government of Kenya introduced a no-cost primary school education in 2003, but despite all these an estimated 1 million, school age children are still not attending school. In addition, up to 13,000 Kenyan girls drop out of school annually due to pregnancy (Kenyan Demographic & Health Survey of 2004).

According to the Kenyan Demographic and Health Survey (2004), educated girls were less likely to marry early and more likely to practice family planning, in addition, their children had a high survival rate as compared to their counterparts who drop out of school. Therefore grade repetition and dropout whether imposed or voluntary represents inefficiency and wastage of resources for society. This study established that parental involvement in child’s education was important factor in determining the learners’ achievement and hence affects internal efficiency. The study also noted that it had a multifaceted impact on students’ level of participation. So parents and teachers are encouraged to work hand in hand to actualize internal efficiency.

In their study on the effects of cost sharing on internal efficiency, Kiveu and Mayio (2009) found that the majority of those who repeated came from well off families that could afford the costs. Fees abolition may lead to increased repetition, especially in day schools where the fees charged is quite low because in that case even poor parents may be able to raise the fees for the additional year. However a study carried out by Mwangi (2012) found that repetition in day schools had reduced under the FDSE policy.
2.5 Mitigation Measures and Mechanisms to Enhance Internal Efficiency

Nishimura, Yamano and Sasaoka (2007) carried out a study that sought to establish the status of dropout and repetition under the UPE policy in rural Uganda. They found that the probability of repetition was higher in public schools than in private schools. To them, there was a possibility that the capitation grant might make schools want to have as many pupils as possible to the extent of increasing repeaters. To improve internal efficiency of public schools Nishimura et al (2007) suggested a change in the mode of public subsidization. They suggested an incentive scheme that would reward teachers whose classes/school improved repetition; that is an incentive scheme directly linked to improved internal efficiency of schools. However they failed to specify the category and type of learners to which the aid should be channeled in order to enhance retention; a research gap filled by this study where it was specific that the help was to be channeled not to all students but the needy and also bright students for the schools to actualize retention and performance which are both aspects of internal efficiency.

A World Bank (2004) study outlined aspects of teacher deployment policy that would allow secondary enrollment to increase by 50 percent without increasing the number of teachers; two of which are of interest in this study. These are: increasing class sizes from an average of 36 to about 45; and expanding existing schools to at least three parallel streams. Fee abolition may improve efficiency in utilization of teachers through increased enrolment which may translate into larger class sizes and/or larger school sizes, in terms of number of streams. Some measures of improving efficiency would include: decreasing repetition and dropout; increasing class size; and improved utilization of teaching-contact hours.
If for instance, a system has high repetition rates then it means that a lot of scarce resources are going to waste; since the same amount of resources could have been spent on a larger number of children if there was no repetition. The above mitigation measures were general and failed to give specific way on how teachers can create time for the learners for them to improve on the efficiency. This gap was bridged by teachers who noted that they were spending a lot of teaching hours attending meetings on textbooks selection which otherwise could be used in attending to students. They spent a lot of time travelling to buy books at the expense of teaching or running the schools. Teachers unanimously suggested the return of the Kenya School Equipment Scheme.

2.6 Summary of Reviewed Literature

In the literature, the reduction in participation rates and wastage that result from dropping out are issues of concern to the government and every effort is being made to address them. The adoption of cost sharing policy in education has witnessed the return to communities and parents a substantial proportion of financial responsibility for schooling. Due limited or lack of resources, the result is reduced returns from education leading to inability of parents and lack of motivation to educate their children leading to negative effects on children’s school internal efficiency. In the study, there were gaps arising from education financing policies that affected internal efficiency in secondary schools. It established that despite Government policy of subsidized secondary education, all schools agreed that quality has been compromised.
One of the major factors cited was the cost of school-based instruction itself and therefore schools require pupils to have textbooks, stationery uniforms, and pay tuition and activity fees. The study established that an efficient system of education would considerably reduce dropout rates and relieve households of heavy burdens. This can be actualized through an appropriate policy measures and political will which ensure that education is put at the core of development. The major school based factor that hindered internal efficiency was mostly affected by delays in the acquisition of inputs to a large degree for instance; some schools would still take two to three months to avail to the students even after the resources were made available. Increased student numbers leading to shortages of teachers was also a matter of great concern. The issues that led to inefficiencies included student-staff ratio and teaching-contact hours among other challenges. This study bridged these gaps by establishing how well these issues can be controlled to improve on internal efficiency.

Family based factors is one of the major factors which discourage parents from investing in their children’s education because many parents and by extension, many communities could not afford the ever-increasing cost of schooling adequately and therefore were not in a position take their children to school. Factors, such as initiation ceremonies and gender socialization which are social-cultural and religious in nature are additional factors which are responsible for pupils’ failure to complete primary education. The study established that grade repetition and dropout whether imposed or voluntary represents inefficiency and wastage of resources for society. This study also established that parental involvement in child’s education was important factor in determining the learners’ achievement and hence affects internal efficiency and suggested mitigation measures to bridge these gaps.
CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter covers the research methodology; research design, study population, sample size and sample technique, research instruments, validity of research instruments, reliability of research instruments, piloting of instruments, procedure of the study and technique of data analysis and ethical considerations.

3.2 Research Design

This research adopted cross sectional research design, which is a type of survey design normally used in situations where the population of study is large and is examined at a single point in time. Cross sectional research design involves collection of data on more than one case at a single point in time in order to gather a body of quantifiable data in connection with two or more variables, which are then examined to detect their pattern of association (Bryman, 2004).

3.3 Location of the Study

The location of this study was Nzaui Sub County in Makueni County in Kenya. The researcher was prompted by the fact that the level of wastage in secondary education is still high in Nzaui Sub County as shown in Table 1.1 despite the free primary and subsidized secondary education in many parts of the country including Nzaui Sub County and therefore the passionate desire of the researcher to establish the same with a few to recommend a bridge to the existing gaps. The original Makueni District is located in the Southern end of Eastern Province and covers an area of 7,965.8 km² (GoK, Makueni, County Commissioners’ Office). The district has
been subdivided into eight (8) new sub counties, namely Makueni, Kathonzweni, Kilungu, Mbooni East and West, Kibwezi, Nzaui and Mukaa Sub Counties.

3.4 Target Population

The target population comprised of 400 teachers, 33 head teachers and 9120 students in 33 secondary schools in the Sub County (Statistics DEO’s Office, Makueni County 2013).

3.5 Sample and Sampling Techniques

3.5.1 Sampling Technique

Head teachers were randomly selected because all of them are believed to have very good information regarding educational resources as a factor of internal efficiency in Secondary schools. Again most head teachers were interviewed to provide qualitative information hence making purposive sampling appropriate for the study. The teachers and students were randomly selected so as to give each one equal chance to be selected to participate. Simple random sampling involves defining population identifying each individual or member of the population and selecting individuals basing on the chance basis therefore, compared to other techniques random sampling is the best way to obtain a respective sample.

3.5.2 Sample Size

Gay (1992) suggests that at least 10% of the population is a good representation where the population is large and 30%, where the population is small. He observes that a researcher selects the sample due to various limitations that may not allow researching the whole population drawn. For this study, a sample size of 10% was used to collect data from teachers, 30% was applied for the head teachers while, for
the students, the study applied the formula by Yamane (1967) to guide the sample size.

According to the formula

\[
N = \frac{(1 + N(e)^2)}{1 + 9120(0.1*0.1)}
\]

Where \( n = \) sample size of survey area, \( N = \) population size of survey area, and \( e = \) desired level of precision of 0.1. We assumed a 90% confidence level and maximum degree of variability of 50% (0.5) which is the estimated proportion of an attribute that is present in the population. Our desired level of precision was 10%. The study selected a sample of 100 respondents as shown in Table 3.1.

<table>
<thead>
<tr>
<th>Population</th>
<th>Population size</th>
<th>Sample %</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td>400</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>Head Teachers</td>
<td>33</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>Students</td>
<td>9120</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Researcher (2015)

3.6 Research Instruments

In order to have justifiable conclusion the researcher used a multimodal approach referred to as triangulation. This was done to provoke contrasts seminars and comparisons of items and responses from questionnaires, interviews and observations. The research instruments used in this study were questionnaires and interview schedules. A questionnaire was preferred because questionnaires consist of many items combined and more reliable measure of constructs than would any
single item. It offers considerable advantages in administration: it presents an even stimulus potentially to large numbers of people simultaneously and provides investigation with an easy accumulation of data. Questionnaires give respondents freedom to express their views or opinion and make suggestions.

3.7 Pilot Study

According to Mugenda and Mugenda (2003), it is necessary to pilot-test the instruments to ensure that the items are clearly stated and can be understood by the respondents. The main purpose of the piloting was to determine validity and reliability of the research instruments. Before the actual data collection, the questionnaires were piloted with 3 secondary teachers from 3 secondary schools. The procedures used in pre-testing the questionnaires were identical to those used during the actual data collection. This was to allow the researcher to make meaningful modifications to the research instruments. For example, unclear instructions, insufficient writing space, vague questions and wrong numbering revealed and corrected, thus improving the questionnaire.

3.8 Validity of the Study Instruments

Validity refers to the extent to which an instrument measures what is supposed to measure. The instruments were evaluated for content validity that is the extent to which the questionnaire content which includes vocabulary, sentence structure and the questions, are suitable for the intended respondents. Content validity is done by expert judgment. The study used validated instrument to adequately address the objectives of the study. The researcher sought the expertise of other researchers who conducted research on similar studies to check if the instruments were viable to collect the intended data.
3.9 Reliability of the Study Instruments

Reliability is a measure of the degree to which a research instrument yields consistent results. This study employed split half method to test the reliability of the instruments. Split half method is a type of reliability based on the co-efficient of internal consistency of questionnaire as a research instrument. It divides the instrument into two halves in terms of even and odd numbers after it has been administered. Each half is scored independently of the other with items of the two halves marched on content, if test is reliable, the score on the two halves have a high positive association co-efficient. This procedure was preferred because of its ability to measure internal consistency of the instrument being tested and at 0.740 up, the statistical level of correlation co-efficient was judged as reliable.

3.10 Data Collection Procedures

The researcher obtained a letter from college to assist in obtaining a research permit from the National Council for Science and Technology. After this, the researcher visited each of the sampled schools and booked an appointment with the head teachers and teachers to administer the questionnaires and conduct interviews. Drawing from a broad range of data sources and analytical approaches provided rich results and facilitated cross fertilization among the findings in the four objective areas. Primary data was collected as needed in the selected schools. However evaluation maximized the use of existing reliable data.

3.11 Data Analysis Procedure

Quantitative data was coded, assigned labels to variables categories and entered into the computer. The analyzed quantitative statistics were presented in frequency tables, percentage, and pie charts were used to present the information. Qualitative
data was organized into thematic areas for easier interpretation, common items were obtained in data collected and clustered according to research objectives so as to identify variables that depicted general concepts of the study. Inferences were made from particular data under each theme and conclusion was then drawn from the findings.

3.12 **Logistical and Ethical Consideration**

After getting research permit, booking for head teachers' appointment for data collection was sought. For ethical consideration, participants were informed of the nature of the study and allowed to choose whether to participate or not. To safeguard the privacy of the participants, respondents were kept in a private environment away from passersby or intruders. Asking participants not to write their names on the questionnaires during the research also helped ensure anonymity. While preparing for data collection and analysis, the researcher maintained anonymity by separating information such as code numbers from the data itself. During the research, participants were requested not to write their names on the questionnaires.
CHAPTER FOUR
FINDINGS, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter presents the findings, interpretations and discussions according to the objectives of the study. This chapter is structured along those variables of the study in tandem with the conceptual framework and the study objectives, discussions on the findings are made based on the variables of interest, which forms the basis for conclusions and recommendations given in the subsequent chapter. However, only analysis key to answering research questions have been done. The study was based on the following objectives to: determine the effect of education financing policies on internal efficiency of secondary schools; identify the school based factors that may affect internal efficiency. The study also identified family based factors that may affect internal efficiency and mitigation measures that exist at secondary education level to enhance internal efficiency to establish internal efficiency in relation to retention and completion in basic education in Nzaui Sub County, Makueni County for 2003 – 2014 cohorts.

4.2 General and Demographic Information

4.2.1 General Information

In this study, head teachers were purposively selected because they are believed to have very good information regarding educational resources as a factor of internal efficiency in Secondary schools while the teachers and the students were randomly sampled. The researcher conducted interviews with each of the 10 principals from schools included in the sample. Questionnaire return rate is the proportion of the questionnaires which are received by the researcher for purposes of analysis from
the sample that participated in the survey as intended in all the research procedures. A total of 100 questionnaires were distributed to the students and 40 to the teachers but only 99 were duly filled and returned by the students and all the 40 questionnaires returned by the teachers making a return of 139. This was a return rate of 99.0%.

4.2.2 Demographic Information

This section deals with the demographic information of the respondents more particularly the students and teachers. In social sciences research personnel characteristics of respondents have very significant role to play in expressing and giving the responses about the issues under study, keeping this in mind, in this study a set of personal characteristics namely, gender, ages of the students, highest academic qualification and teaching experience for teachers were established as explained below.

4.2.2.1 Gender Analysis

Gender is an important variable in a given social situation in a study which is variably affected by any social, educational or economic phenomenon. In this study the genders of both teachers and students were analyzed.

a) Gender of the Teachers

The study sought to establish the gender of the teachers from the sampled secondary schools and Table 4.1 presents the findings:
Table 4.1: Gender of the Teachers

<table>
<thead>
<tr>
<th>Gender</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>29</td>
<td>72.5</td>
</tr>
<tr>
<td>Female</td>
<td>11</td>
<td>27.5</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: (Researcher, 2015)

As shown in Table 4.1, close to three quarters (72.5%) of the teachers were male while 27.5% were female. This was in line with the researcher’s expectations of sampling both male and female teachers in order to establish their opinion on level of internal efficiency in relation to retention and completion in basic education from the teachers’ perspective. Also due to unavoidable presence of more male teachers in Nzaui Sub County and not because of any attitudinal or skewness hence large numbers of teachers were males by gender in this study.

b) Gender of the Students

The questionnaires were distributed to both male and female students and the data related to gender of the students is presented in Table 4.2.

Table 4.2: Gender of the Students

<table>
<thead>
<tr>
<th>Gender</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>49</td>
<td>50.5</td>
</tr>
<tr>
<td>Female</td>
<td>48</td>
<td>49.5</td>
</tr>
<tr>
<td>Total</td>
<td>97</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: (Researcher, 2015)
As shown in Table 4.2, the questionnaires were distributed proportionately to both male and female students such that 50.5% were male while 49.5% were female and two students declined to state their gender.

4.2.2.2 Age of Students

Age of the respondents particularly students for this study was one of the most important characteristics in understanding their views about the internal efficiency of basic education; by and large age indicates level of maturity of individuals in that sense age becomes more important to examine the response. From this study, the average age of the students was 17 years with youngest student aged 14 years and the oldest at 21 years old. This category is prone to practices like absenteeism and dropout because they feel that they are too old to be in school and by law they can participate in gainful employment since they are above the age prescribed by the UN charter on child labour.

4.2.2.3 Grade Levels

The students were sampled from all grade level that exist in secondary schools as shown in Figure 4.1.

Figure 4.1: Grade Levels
The students were sampled from all the four grades with majority 30.3% from form one, 29.3% from form three and 24.2% sampled from form four while only 16.2% from form one. This was to ensure that each group of student gave their views on the topic under study. According to key informants like the head teachers, this irregular enrolment trend could be due to the inability of households to sustain their children in school due to school levies and opportunity cost of schooling coupled with girls who drop out of school due to pregnancies among other reasons.

4.2.2.4 Nature of School

The researcher requested the students to state the nature of school in the questionnaires. In response to this question, the findings were as shown in Figure 4.2.

![Figure 4.2: Nature of Schools](image)

From the findings, majority 44.9% of the sampled schools were mixed day schools, 32.7% mixed boarding schools and 11.2% girls boarding and boys boarding respectively. These results may serve to show that variation in internal efficiency in
mixed secondary schools may be significantly different from those of the single sex secondary schools. This scenario may also generate the view that the factors responsible for internal efficiency in schools are different for the mixed and single sex schools.

4.2.2.5 Academic Qualifications of Teachers

The variable academic qualification was investigated by the researcher and the data is presented in Figure 4.3 below.

![Figure 4.3: Teachers' Academic Qualification](image)

As presented in Figure 4.3 above, majority 77.5% of teachers had bachelor degrees, 12.5% had diploma level of education and 10.0% with masters degree. The level of academic qualification in a research is one of the most important characteristics that might affect the person’s attitudes and the way of looking and understanding any particular social phenomena. In a way, the response of an individual is likely to be determined by his educational status and therefore it becomes imperative to know the educational background of the respondents. One pertinent issue about the
efficiency of teachers is their qualifications. Abagi (1997) posits that professionally
trained teachers are more efficient and effective than untrained ones. That is why the
government is spending 5.0% of its 2013/14 financial year educational expenditure
in teacher education. Since a lot of resources are invested in teacher training, teachers
are expected to offer optimal service to the education sector.

4.2.2.6 Teaching Experience

Teachers were asked to state their years of teaching experience and Table 4.3
presents the findings.

Table 4.3: Teaching Experience

<table>
<thead>
<tr>
<th>Years of Experience</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 5 years</td>
<td>17</td>
<td>42.5</td>
</tr>
<tr>
<td>6-8 years</td>
<td>8</td>
<td>20.0</td>
</tr>
<tr>
<td>9-11 years</td>
<td>2</td>
<td>5.0</td>
</tr>
<tr>
<td>12-14 Years</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>Over 15 Years</td>
<td>8</td>
<td>20.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

As shown in Table 4.3, majority 42.5% had less than 5 years teaching experience,
20.0% had between 6 to 8 years, 12.5% had between 12 to 14 years of teaching
experience, 20.0% had over 18 years experience while only 5.0% had between 9 to
11 years of experience. According to Goldhaber (2004), teachers’ education level
and experience have attributes of teacher quality and quality of education in school
as supported by (Johnson et al., 2007). Teacher education level and experience
therefore represent the ability to manage the classroom efficiently and to promote
student achievement. A number of studies Harris and Sass (2007); Ladd (2008) and Sass (2007) confirm findings from existing research that, on average, brand new teachers are less effective than those with some experience.

4.3 Effect of Education Financing Policies on Internal Efficiency

This section highlights some of the major effects of education policies and learning processes on internal efficiency in secondary schools. The teachers were asked to state whether the number of students who were absent from school had increased or reduced as a result of free day secondary education policy. The findings were as shown in Figure 4.4.

![Figure 4.4: Frequency of Student Absenteeism Under FDSE](image)

As shown in Figure 4.4, above 75.0% indicated that the number of students who were absent drastically reduced due to non payment of fees under FDSE policy, 10.0% indicated that it had increased while 15.0% did not observe any changes. This was confirmed by 75.0% of the teachers who indicated that after the introduction of FDSE policy, the number of days that a student stayed out of school due to non
payment of fees had also reduced. Ministry of Education in Kenya outlines the policy framework in the Education Sector Support Programme (KESSP) (2005-2010) which is a publication that makes education more accessible to all.

However, according to the cost-sharing policy, the burden of paying teachers lies with the government, while constructing physical structures and purchasing instructional related materials are the responsibility of communities and parents. Due to the fact that most parents are not in a position to meet these costs, internal efficiency of schools are negatively affected. This confirms a report by Kimeu et al (2009) that with increased poverty levels, many parents and communities have not been able to meet the cost requirements under cost sharing policy. Therefore if parents cannot provide adequate instructional materials as required by the cost-sharing policy, the pertinent issue is whether the policy is still relevant.

The internal efficiency indicator that was examined in relation to school characteristics was dropout rates. Primary data on dropout levels was obtained from the respondents using structured questionnaire. The study established that despite the FDSE policy the students reported to this study that an average of 14 students still dropped out of school annually. Table 4.4 shows the specific reasons for dropout and average number of students.
Table 4.4: Reasons for Students Dropout

<table>
<thead>
<tr>
<th>Reasons for Students Dropout</th>
<th>Number of Dropouts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of school fees</td>
<td>7</td>
</tr>
<tr>
<td>Permissiveness</td>
<td>4</td>
</tr>
<tr>
<td>Child labour</td>
<td>5</td>
</tr>
<tr>
<td>Pregnancy</td>
<td>4</td>
</tr>
<tr>
<td>Poverty</td>
<td>5</td>
</tr>
<tr>
<td>Lack of learning facilities in school</td>
<td>4</td>
</tr>
<tr>
<td>Indiscipline</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 4.4 shows the findings of different reasons for dropout of student and the numbers that dropped annually. As shown in Table 4.4 above is there have been levels of drop out cases in secondary schools despite FDSE policy. This concurs with Chabari (2010) that despite the Government policy of subsidized secondary education leading to increased enrolment to the extent that there was overcrowding in classrooms, there are still challenges facing effective implementation of the FDSE policy. This also confirms Kiveu et al, (2009) that many parents and communities have not been able to meet the cost requirements under cost sharing policy due to increased poverty levels which has made it difficult for communities and parents to adequately support education making education beyond the reach of many households thereby affecting internal efficiency.

Even though the Government of Kenya subsidizes the general cost of secondary education, 82.5% of the teachers agreed that they are sometimes required to pay some cash as contributions to school funding, however 67.5% also agreed that many
activities are adequately funded by the schools. Due unavailability of funds, 75.0% of the teachers agreed that it had reduced school dropouts and increased on promotion rates. This finding negates Kiveu et al, (2009) who reported that parents and teachers view cost sharing as a burden that has negative impact. Negative in the sense that it has increased dropout, repetition and absenteeism and it has led to inadequate facilities and equipment in schools.

4.3.1 Cost per Student in 2011-2014

To establish the cost per student enrolled on the year 2011 to 2014, Table 4.5 presents the findings.

Table 4.5: Annual Cost per Student Enrolled in 2011-2014

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>24,417</td>
<td>8,000</td>
<td>40,000</td>
<td>9139</td>
</tr>
<tr>
<td>2012</td>
<td>25,276</td>
<td>8,000</td>
<td>40,000</td>
<td>9270</td>
</tr>
<tr>
<td>2013</td>
<td>26,114</td>
<td>8,500</td>
<td>42,000</td>
<td>9446</td>
</tr>
<tr>
<td>2014</td>
<td>26,938</td>
<td>8,500</td>
<td>42,000</td>
<td>10,256</td>
</tr>
<tr>
<td>Average</td>
<td>25,686</td>
<td>8250</td>
<td>41000</td>
<td>9527</td>
</tr>
</tbody>
</table>

Table 4.5 shows that the average annual cost of secondary education for four years from 2011 -2014 was 25,686, the minimum cost was 8250 and the maximum cost at 41,000. However there were very wide variations between the highest cost and the lowest cost at a standard deviation of 9527. According to Kiveu et al (2009) both parents and teachers viewed the cost of secondary education as a burden with more negative effect on internal efficiency that its positive impact.
4.3.2 Dropouts and Completion

To measure internal efficiency, teachers were asked to indicate the number of students who had enrolled, repeated, dropped out, completed and the general transition to Universities between the years 2011-2014. Table 4.6 presents the findings.

Table 4.6: Dropouts and Completion Analysis

<table>
<thead>
<tr>
<th>Statement</th>
<th>Genders</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrolment</td>
<td>Boys</td>
<td>47</td>
<td>34</td>
<td>57</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>35</td>
<td>35</td>
<td>34</td>
<td>38</td>
</tr>
<tr>
<td>Repetitions</td>
<td>Boys</td>
<td>3</td>
<td>2</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Dropouts</td>
<td>Boys</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Completion/Graduation</td>
<td>Boys</td>
<td>40</td>
<td>39</td>
<td>41</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>29</td>
<td>29</td>
<td>30</td>
<td>32</td>
</tr>
<tr>
<td>Transition Rate</td>
<td>Boys</td>
<td>85.1%</td>
<td>87.2%</td>
<td>72.0%</td>
<td>84.6%</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>82.9%</td>
<td>82.8%</td>
<td>88.2%</td>
<td>84.2%</td>
</tr>
</tbody>
</table>

As shown in Table 4.6, the enrolment trend for boys is higher than girls throughout the four years under review while there were no significant differences on repetitions and dropouts. Interestingly, the study established that rate of transition for boys was slightly higher than girls in all the years except the year 2013 which showed a higher transition rate for the girls. This study showed a higher transition rate of over 80.0% for both boys and girls. This study showed a contrast of the
survey by Republic of Kenya (2003), which showed that secondary school cycle in Kenya faces internal efficiency challenges such as low transition rates between primary and secondary schools as well as high dropout rates.

Despite government policy of subsidized secondary education, the increase in poverty levels has made it difficult for parents to support education adequately; consequently, education is now beyond the reach of many households hence dropouts. In these circumstances, secondary school students whose parents cannot afford costs of instructional materials, school uniforms, lunch/boarding fees, and activity fees tend to go to school irregularly and, in the long run, drop out of school. Faced with limited resources, and reduced returns from education, parents are not only unable but also unmotivated to educate their children. In the end, these factors have negative effects on children’s school participation.

4.4 School Based Factors on Internal Efficiency

To establish the school based factors that may lead to internal efficiency, the study sought to establish the level of school attendance, pupil-teacher ratio, pupil-textbook ratio, availability and adequacy of teaching/learning materials.

4.4.1 Level of School Attendance

The study sought to establish the level satisfaction of the teachers concerning school attendance by students and Figure 4.5 presents the findings.
Figure 4.5: Level of Students School Attendance

Figure 4.5 show that majority 70.0% of the teachers indicated that the level of students’ attendance was good, 22.5% said it was satisfactory while only 2.5% said it was poor. Generally 97.5% of the teachers were satisfied with the attendance. The study also established that school policies that required that students should pass with good grades before being promoted, was a matter of concern despite Government abolishment of repetition in class.

4.4.2 Teacher – Students Ratio

In terms of teacher-pupils ratio, the average was 1: 40 that is one teacher to every forty students even though some schools had as little as 1: 12 (one teacher to twelve students) while other as more as 1:61 (one to sixty one students). The ratio of teacher to student was considered to be good as compared to the requirement of the Government of Kenya which acknowledges the pupil teacher ratio at the national level to ratio of 45:1. However according to Wad Haddad (1978) on the basis of available data no optimum class size can be scientifically established as a function of
educational benefits. The study contradicts Wad Haddad (1978) who argues that how a teacher organizes and motivates the class is more important than class size and that savings made from increased class size might be invested in teacher-training or educational materials, which have been shown to have stronger effects on learners’ achievement than the size of class.

4.4.3 Student-Textbook Ratio

To establish student to textbook ratio per subject, the students were asked to state the ratio of students to textbook distribution in their respective schools and Table 4.7 presents the findings.

Table 4.7: Student-Textbook Ratio per Subject

<table>
<thead>
<tr>
<th>Subject</th>
<th>Average Student-Textbook Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>1:3</td>
</tr>
<tr>
<td>English</td>
<td>1:3</td>
</tr>
<tr>
<td>Kiswahili</td>
<td>1:2</td>
</tr>
<tr>
<td>Physics</td>
<td>1:2</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1:3</td>
</tr>
<tr>
<td>Biology</td>
<td>1:4</td>
</tr>
</tbody>
</table>

The student to textbook was as shown in Table 4.7 above. The average student to textbook ratio was 1:3 for Mathematics, English, Kiswahili and Chemistry although biology showed a slightly higher ratio of 1:4 and Physics a lower ratio of 1:2. Both teachers and students felt that the ratio was inadequate to ensuring effective teaching and learning as it was problematic sharing text books particularly in doing homework. This made most students and teachers to look for alternative ways of
managing the shortfall of which some were not effective. For instance, teachers sometimes turned to giving oral lecture methods of teaching, giving few assignments or did not give any assignment at all and this affected both performance and completion. According to the World Bank (2005) the availability of textbooks, as inputs in education, play a crucial role in the determination of educational outputs and outcomes and has been found to be the most consistently positive determinant of academic achievement.

This finding concurs with the Ministry of Educations position that the textbook/pupil ratio of almost 1:1 in 2008 and 2009 for the majority of schools (Value for Money Audit Report, 2009). This confirms the teachers' position that instructional resources are grossly insufficient. The Ministry of Education in that report admits that, in fact, the budgetary allocation by the Government of Kenya through the Ministry for the sector is insufficient and this does impact negatively on the provision of resources such as textbooks (Republic of Kenya, 2010). This findings also confirms Abagi (1997) that despite the recognition of the acute need of textbooks by the Ministry of Education, over 90% of the government’s recurrent expenditure pays teachers' salaries, while only 1% and 1.5% are allocated textbooks which appears to be an inefficient allocation of resources. The question this study posed is that if parents cannot provide adequate instructional materials as required by the cost-sharing policy, the pertinent issue is whether the policy is still relevant.

The study sought to establish the adequacy of instruction materials and whether it facilitates efficiency. Figure 4.6 presents the findings.
The teachers were asked to state whether their respective schools had adequate instruction material and whether this facilitated efficiency. Figure 4.6 shows that 47.5% agreed to the statement and 52.5% disagreed. Hassan (2000) observes that when instructional material are lacking or inadequate the teaching/learning process is compromised and this inevitably is reflected in low academic achievement, high dropout rates, problem behaviours, poor teacher motivation and unmet educational goals. Abimbade (1997) opines that instructional resources in teaching and learning make students to learn more and retain better what they have been taught and that it also promotes and sustains students' interest. It also allows the learners to discover themselves and their abilities and consequently provides them with an opportunity to realize their full potential hence improved internal efficiency.
4.4.4 Regular Meetings in School

Teachers were asked to indicate the extent to which they agreed that meeting regularly at school had an impact on the smooth running of their respective schools. Figure 4.7 presents the findings.

![Figure 4.7: Effects of Regular Meetings on Internal Efficiency](image)

Figure 4.7 shows that 90.0% of the teachers agreed that having regular meetings within school led to smooth running of the schools hence internal efficiency.

4.4.5 Availability of Instructional Materials

The teachers were asked to indicate whether the availability of instructional materials influenced internal efficiency and Figure 4.8 presents the findings.
Figure 4.8: Influence of Availability of Instructional Materials on Internal Efficiency

Figure 4.8 show that majority 95.0% agreed that the availability of instructional materials influenced internal efficiency in school. This concurs with The Global Monitoring Report on Education for All, (UNESCO, 2008) that students’ access to teaching and learning materials is an important factor in what and how much they learn.

The teachers were further asked to indicate the level of adequacy of various types of materials and resources used in secondary schools in teaching and learning. Table 4.8 presents the findings.
As shown in Table 4.8, it is evident that different types of materials used in teaching and learning in secondary schools were available in almost all schools except that they were inadequate to influence efficiency. Their inadequacy according to 92.1% of the teachers was due to lack of sufficient funds to run the schools hence internal inefficiency. School-based factors have been cited as being responsible for high drop-outs, and hence low completion rates among students in secondary schools. According to Ozigi (1997), availability of physical facilities encourages meaningful learning and teaching. The findings agree with Mwangi (2005) who found out that lack of physical and learning facilities in teaching had a negative impact on student’s participation in schools.
The cost of school-based instruction itself is a major factor as schools require students in secondary schools to have uniforms, textbooks, and stationery. Since the cost of these items is high, children, whose parents cannot afford to provide all or most of these requirements, are always under pressure from the schools’ administrators. The frustrations these students go through affect their academic performance: they lose interest in education and, eventually, dropout of school and this has an impact on internal efficiency of the school. This concurs with Abagi (1997) that despite the recognition of the acute need of textbooks by the Ministry of Education, over 90% of the government’s recurrent expenditure pays teachers’ salaries, while only 1% and 1.5% are allocated textbooks and the school feeding and milk programme, respectively which appears to be an inefficient allocation of resources.

The study also established that the overloaded 8-4-4 curriculum was one of the factors which affected students’ participation in school negatively due to a lot of both practicals and theory which they must accomplish. In the process, some students failed to complete education and, in the long run, drop out of school. This kind of curriculum also has a bearing on the costs borne by parents, such as the purchase of textbooks and payment for extra tuition. This finding confirms World Bank (1994), Abagi (1997) and Sifuna (1997) that the pressure under which students in schools work is a lot as the stay in school long hours and have short holidays which have affected their motivation for learning.

Through qualitative analysis, the data established that negative teachers’ attitudes towards their students, in classroom management and their interaction had great
impacts on the academic achievement and the retention in school, particularly girls. The study indicated that teachers sometimes neglected, abused, mis-handled, and sent students out of class during teaching/learning periods. This atmosphere was not conducive to learning and made some students hate school. An obvious result of all this were truancy, poor performance, and non-completion of the education cycle. According to Njau and Wamuhiu (1996), there are cases where teachers' negative attitude push students out of schools particularly girls. When the atmosphere for learning is not conductive for learning as a result of negative attitude, many students are pushed out of school and this interferes with internal efficiency generally.

The students also reported that some male teachers and some female teachers perpetrated sexual harassment. There were cases where girls were forced or induced into engaging in sexual activities. This concurs with reports by the Forum for African Women Educationalist (2003) indicates that more than 12,000 students particularly girls drop out of Kenya's schools yearly due to pregnancy. The forum found out that such a hostile environment negative effects as it discouraged parents from sending their daughters to or pulling them out of school and students lose interest in education and, if pregnant, are kicked out of the school system altogether.

4.5 Family based Factors on Internal Efficiency

The respondents were asked to state the family factors that contributed to dropouts in their respective schools and how many students dropped out. Table 4.8 presents the findings.
As shown in Table 4.8, all the causes for dropout can be summed up as result of low income and high poverty levels. The above reasons for dropouts were confirmed through the interviews with the head teachers who mentioned pregnancies among girls, health problems and indiscipline among other reasons. The head teachers also reported that poor coverage of syllabus and fears of failure by the students were also some of the causes of dropouts. According to Economic Survey (2014), many parents, and by extension, many families, are not in a position to meet the ever-increasing cost of secondary education adequately since the level of poverty has also gone up in the country and the costs of education at all levels have continued to rise,
many Kenyans are unable to meet the cost and can no longer have access to secondary school education. This in the long run affects internal efficiency.

An interview with head teachers revealed that irregular school attendance was caused by lack of levies such as PTA money, exam and lunch/boarding fees, lack of proper school uniform, lack of food, sickness, peer influence and unfriendly school conditions such as intimidation by other pupils and fear of harsh teachers. This contributed to low achievement in schools as most pupils were not able to follow and understand the content taught in their absence. Some pupils were also not putting any effort because no one would follow them closely.

The Economic Survey (2013) clearly indicates that one of the major factor which discourages parents from investing in their children's education is poverty. Parents, and by extension, many communities, are not in a position to meet the ever-increasing cost of schooling adequately. Further, as a result of the introduction of the cost-sharing policy, Abagi (1997) concurs that parents are expected to meet 95% of recurrent costs of their children's education due to high level of poverty in the country. The high costs of education and training at all levels have continued to rise; many Kenyans are unable to meet the cost of education and can no longer have access to education. For that reason, poor households, and in some cases children themselves, have to carefully analyze the opportunity costs of education. As a result, parents have continued to send their children, particularly daughters, into the labour market—mainly as domestic workers in urban centres hence making it difficult for retention and completion at secondary level.
This study established also that some of the social-cultural like initiation ceremonies for boys and gender socialization were additional factors responsible for students' failure to complete education. It was reported that once initiated, some students particularly form ones develop negative attitudes towards female teachers and school. In this connection, some circumcised boys are not ready to be taught by women whom they now consider inferior. Similarly, some initiated feel that they are now grownup who should get married. Pressure is therefore put on them to leave school and meet traditional expectations. Cultural beliefs not only affect boys but girl-child academic achievement. According to Croll (2006), ethnographic studies suggests that parents have very different expectations for girls and boys, in that sons are uniformly expected to live with or near parents, provide long-term support and succeed in education, careers or other income-generating activities. These socio-cultural impacts concurs with (Nyatuka and Nasongo, (2010) who argues that the gender roles that a society assigns to its children will have a determining effect on their future such as schooling, labour force participation and status in relationships.

The study also found out that from students that teachers lacked patience with slow learners and could only move with the brighter students leaving out the slow learners. The head teachers informed this study that in such cases, students hardly got the attention they deserved; hence many were not learning much. Without personalized attention, the weak learners did not perform well. This was confirmed by teachers who admitted that they could not give individualized attention to the students. They said that this was caused by limited contact hours, tough content for the learners and heavy workloads. This demotivated some students hence hindering their performance and to some extent dropout. These findings confirms Ogolla
(2011) who found out that there is a challenges particularly where the class is big, teachers cannot notice slow and weak learners due to large class and limited contact hours.

4.6 Mitigation Measures and Mechanisms to Enhance Internal Efficiency

It was reported by (67.5%) that even though tuition in most schools were being paid by the Government which to some extent relieved parents of the heavy burden of financial requirements in school, the government must motivate teachers by improving their terms of services. The Government should also be prompt and the bursaries for students should also be channeled through to aid particularly needy but bright students. This concurs with Nishimura et al (2007) that the Government should increase capitation grants to enroll as many students as possible.

From the findings (89.5%) also suggested that students who dropped out due to problems like pregnancies should be allowed back after deliveries for them to complete their studies. This concurs with (Assey, 2012) that education is very important for teenage mothers; they should be accepted back to school and the reasons which make them pregnant when they are still at school need to be identified and solution obtained. However this should be done in a way that would not entertain school girl pregnancies. Both students (56.5%) and teachers (90.0%) suggested that the Government should target provision of more instructional materials particularly textbooks should be at least one textbook per student in the core subjects if not all to boost learner achievement.
It was also suggested by all the teachers (100%) that the Government should directly supply textbooks to schools instead of sending money since the amount received was not enough to enable schools acquire good quality books. This confirms Orodho et al (2014) that supply of textbooks to schools by the government should be done directly instead of sending money which be not enough and may be as well be prone to corruption. Teachers (95.0%) also noted they were spending a lot of teaching hours attending meetings on textbooks selection which otherwise could be used in attending to students. Similarly, head teachers spent a lot of time travelling to buy books at the expense of teaching or running the schools. Teachers (100%) unanimously suggested the return of the Kenya School Equipment Scheme.

The study (70.5%) of teachers recommends the strengthening of the guidance and counseling departments in the secondary schools to deal with students who get sucked in peer pressure and are engaging in teenage sex and drugs, this further call for in servicing of the guidance and counseling department teachers on the best practices in guidance and counseling today. In their study on Emerging Internal Efficiency Concerns in Public Primary Schools Orodho et al (2013) opines that guidance and counseling is the appropriate measure to bring back the students to school.

Students (87.8%) suggested that the less fortunate households should be supported by all stake holders including NGOs and so that they are able to meet both direct and hidden costs of education and in turn support themselves and the schools. This would also bring pay-off in the education sector in that it would reduce the incidence of parents sending their children to work so as to supplement family income.
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the findings and gives conclusions and recommendations of the study. The implications of the research findings are explained. Additional research areas are also suggested. The study was based on the following objectives: review the effect of education financing policies on internal efficiency of secondary schools; identify the school based factors that may affect internal efficiency. The study also identified family based factors that may affect internal efficiency and mitigation measures that exist at secondary education level to establish internal efficiency in relation to retention and completion in basic education in Nzaui Sub County.

5.2 Summary of the Study

In this study, head teachers were purposively sampled due to the fact that they had good information regarding educational resources as a factor of internal efficiency in Secondary schools while the teachers and the students were randomly sampled. From this study, 45.9% of the students were sampled from the boarding schools while 54.1% from day school, therefore the opinion of students on level of internal efficiency in relation to retention and completion in basic education is based on both status types of schools.

5.2.1 Demographic Information

The study established personal characteristics namely, gender, ages of the students, highest academic qualification and teaching experience for teachers were established
where (72.5%) of the teachers were male while 27.5% were female. The questionnaires were also distributed proportionately to both male and female students such that 50.5% were male while 49.5% were female and two students declined to state their gender. From this study, the average age of the students was 17 years with youngest student aged 14 years and the oldest at 21 years old. The students were sampled from all the four classes with majority 30.3% from form one, 29.3% from form three and 24.2% sampled from form four while only 16.2% from form two. This was to ensure that each group of student gave their views on the topic under study. From the study, majority 44.9% of the sampled schools were mixed day schools, 32.7% mixed boarding schools and 11.2% girls boarding and boys boarding respectively.

In terms of academic qualification, majority 77.5% of teachers had bachelor degrees, 12.5% had diploma level of education and 10.0% with masters degree. As for teaching experience, majority 42.5% had less than 5 years teaching experience, 20.0% had between 6 to 8 years, 12.5% had between 12 to 14 years of teaching experience, 20.0% had over 18 years experience while only 5.0% had between 9 to 11 years of experience.

5.2.2 Effect of Education Financing Policies on Internal Efficiency

In response to objective one, 75.0% indicated that the number of student who were absent drastically reduced due to non payment of fees under FDSE policy, 10.0% indicated that it had increased while 15.0% did not observe any changes. This was confirmed by 75.0% of the teachers who indicated that after the introduction of FDSE policy, the number of days that a student stayed out of school due to non
The internal efficiency indicator that was examined in relation to school characteristics was dropout rates. The study established that despite the FDSE policy the students reported to this study that an average of 14 students still dropped out of school annually. Even though the Government of Kenya subsidizes the general cost of secondary education, 82.5% of the teachers agreed that they are sometimes required to pay some cash as contributions to school funding, however 67.5% also agreed that many activities are adequately funded by the schools. Due unavailability of funds, 75.0% of the teachers agreed that it had reduced school dropouts and increased on promotion rates. In summary, enrolment trend for boys is higher than girls throughout the four years under review while there were no significant differences on repetitions and dropouts. Interestingly, the study established that rate of transition for boys was slightly higher than girls in all the years except the year 2012 which showed a higher transition rate for the girls. This study showed a higher transition rate of over 80.0% for both boys and girls. Despite government policy of subsidized secondary education, the increase in poverty levels has made it difficult for parents to support education adequately.

5.2.3 School Based Factors on Internal Efficiency

Objective two of the study was to establish the school based factors that may lead to internal efficiency, the study sought to establish the level of school attendance, pupil-teacher ratio, pupil-textbook ratio, availability and adequacy of teaching/learning materials. The findings showed that majority 70.0% of the teachers indicated that the level of students’ attendance was good, 22.5% said it was satisfactory while only 2.5% said it was poor. Generally 97.5% of the teachers were
satisfied with the attendance. In terms of teacher-pupils ratio, the average was 1: 40 that is one teacher to every forty students even though some schools had as little as 1: 12 (one teacher to twelve students) while other as more as 1:61 (one to sixty one students). The ratio of teacher to student was considered to be good as compared to the requirement of the Government of Kenya which acknowledges the pupil teacher ratio at the national level to ratio of 45:1. The average student to textbook ratio was 1:3 for Mathematics, English, Kiswahili and Chemistry although biology showed a slightly higher ratio of 1:4 and Physics a lower ratio of 1:2. Both teachers and students felt that the ratio was inadequate to ensuring effective teaching and learning as it was problematic sharing text books particularly in doing homework. It terms holding meeting in school, 90.0% of the teachers agreed that having regular meetings within school led to smooth running of the schools hence internal efficiency. Majority 95.0% of teachers also agreed that the availability of instructional materials influenced internal efficiency in school. In summary it was evident that different types of materials used in teaching and learning in secondary schools were available in almost all schools except that they were inadequate to influence efficiency.

The cost of school-based instruction itself is a major factor as schools requires students in secondary schools to have uniforms, textbooks, and stationery. Since the cost of these items is high, children, whose parents cannot afford to provide all or most of these requirements, are always under pressure from the schools' administrators. The frustrations these students go through affect their academic performance: they lose interest in education and, eventually, dropout of school and this has an impact on internal efficiency of the school.
5.2.4 Family Based Factors on Internal Efficiency

Objective three of answered the family based factors that contributed to dropouts in their respective schools and how many students dropped out. All the causes for dropout can be summed up as result of low income and high poverty levels. The above reasons for dropouts were confirmed through the interviews with the head teachers who mentioned pregnancies among girls, health problems and indiscipline among other reasons. The head teachers also reported that poor coverage of syllabus and fears of failure by the students were also some of the causes of dropouts. An interview with head teachers revealed that irregular school attendance was caused by lack of levies such as PTA money, exam and lunch/boarding fees, lack of proper school uniform, lack of food, sickness, peer influence and unfriendly school conditions such as intimidation by other pupils and fear of harsh teachers. This contributed to low achievement in schools as most pupils were not able to follow and understand the content taught in their absence. Some pupils were also not putting any effort because no one would follow them closely. This study established also that some of the social-cultural like initiation ceremonies for boys and gender socialization were additional factors responsible for students' failure to complete education. The study also found out that from students that teachers lacked patience with slow learners and could only move with the brighter students leaving out the slow learners.

5.2.5 Mitigation Measures and Mechanisms to Enhance Internal Efficiency

It was reported by (67.5%) that even though tuition in most schools were being paid by the Government which to some extent relieved parents of the heavy burden of financial requirements in school, the government must motivate teachers by
improving their terms of services. From the findings (89.5%) also suggested that
students who dropped out due to problems like pregnancies should be allowed back
after deliveries for them to complete their studies. Both students (56.5%) and
teachers (90.0%) suggested that the Government should target provision of more
instructional materials particularly textbooks should be at least one textbook per
student in the core subjects if not all to boost learner achievement. It was also
suggested by all the teachers (100%) that the Government should directly supply
textbooks to schools instead of sending money since the amount received was not
enough to enable schools acquire good quality books. Teachers (95.0%) also noted
they were spending a lot of teaching hours attending meetings on textbooks selection
which otherwise could be used in attending to students. Similarly, head teachers
spent a lot of time travelling to buy books at the expense of teaching or running the
schools. Teachers (100%) unanimously suggested the return of the Kenya School
Equipment Scheme. The study (70.5 %) of teachers recommends the strengthening
of the guidance and counseling departments in the secondary schools to deal with
students who get sucked in peer pressure and are engaging in teenage sex and drugs,
this further call for in servicing of the guidance and counseling department teachers
on the best practices in guidance and counseling today. Students (87.8%) suggested
that the less fortunate households should be supported by all stake holders including
NGOs and so that they are able to meet both direct and hidden costs of education
and in turn support themselves and the schools.
5.3 Conclusion of the Study

Based on the study findings, the following conclusions were made

i. As for objective one, Despite the Government policy of subsidized secondary education, provision of textbooks and learning materials in schools, all schools of study revealed that quality has seriously been compromised. Lack of motivated teaching force, large and congested classes, indiscipline cases and low contact hours were noted to contribute greatly to this. The study concludes that the amount of resources spent on education influences its quality and the amount of learning achieved hence internal efficiency. The textbook availability and other instructional resources in a school enhance achievement of learners as they are exposed to better revision.

ii. In objective two concerning several school-based factors were cited as being responsible for high dropouts, low retention, and hence low completion rates among secondary school students in Nzaui Sub County. The cost of school-based instruction itself was a major factor. Schools require students to have uniforms, textbooks, and stationery, and things like development fees, schools bus among other levies. Since the cost of these items is high, students whose parents cannot afford to provide all or most of these requirements are always under pressure from the schools’ administrators. The frustrations these students go through affect their academic participation: they lose interest in education and, eventually, drop out of school. An efficient system of education would considerably reduce dropout rates, the resources thereby saved could be used to provide instructional materials and thus relieve households of a heavy burden. While a total completion rate is virtually unattainable anywhere, completion
rates in Kenya can be improved through appropriate policy measures and political will which would put education at the core of development.

iii. As per objective three family based factors also contributed towards dropouts and challenges on completion. This concludes that parental involvement is an important factor in determining learner achievement and hence affects internal efficiency. It had a multifaceted impact on students’ level of participation as was noted in the study. Teachers suggested that parents needed to cooperate and assist in their children’s education if quality was to be achieved in Nzaui Sub-County. They needed to encourage their children to work hard in school and frequently check their homework. Teachers also wanted parents to work hand in hand with them to instill discipline. How well students are taught and how much they learn can have a crucial impact on how long they stay in school and how regularly they attend school.

iv. To analyze mitigation measures as per objective four, close analysis of the data in this study reveals that secondary education had internal efficiency problems, such as the high wastage because of low completion and high repetition rates. The study also revealed that internal efficiency indicators especially dropout rates in secondary schools was an emerging issue in Nzaui Sub County. This is because a large amount of resources in terms of supportive materials are often committed to the provision of secondary school education. Many students, who enter the secondary school system at form one level, do not complete the cycle as they drop out in the course of education system. The situation is grave and worsening, a trend which contradicts the national goal of promoting literacy and fighting against ignorance.
According to the cost-sharing policy developed by the Government, the burden of paying teachers lies with the government, while erecting physical structures and purchasing instructional related materials are the responsibility of communities and parents. Most parents are not in a position to meet these costs due increasing poverty levels in Kenya which makes it difficult for retention in school. This study concludes that the students’ rate of flow in Kenyan education system determines whether those entering the school system are able to graduate within the stipulated period. If the rate of progression from the entry point to the point of departure is low, the system is said to be internally inefficient since the affected students are disproportionately using the resources allocated to the sector.

The study further established that Indiscipline had become a serious problem in secondary schools in Nzaui Sub-County resulting to dropout cases, instructional materials and other resources are inadequate compromising the quality of education offered, school environments are unattractive to learners affecting enrolments while poverty and ignorance lower completion and transition rates. The above factors compromised internal efficiency and quality of Secondary school education as revealed by this study requires immediate action.

5.4.1 Recommendation of the Study

Based on the findings and conclusions, this study recommends that

i. For objective one, the inefficiency is caused by low completion rate which is a serious waste which must be arrested immediately. The government and its partners in education must come up with viable policy initiatives, including affirmative action in an endeavor to save the education system from inefficiency.
The ministry of Education may consider further comprehensive policy review on number of subjects offered in secondary school to weed out inefficiencies and stop wastage if possible. The 8-4-4 curriculum, where students do not specialize in subjects should be reviewed and if possible, be reduced to a manageable level.

The Kenya Government should consider a comparative analysis particularly with developed countries to experiment with new forms of secondary education to try other viable models parallel or complementary to Kenya's 8-4-4 system of education to increase access to and reduce internal inefficiency in secondary education.

ii. For objective two concerning school based factors, recruitment of sufficient number of teachers was necessary to ensure adequate numbers in the schools in the Sub-County. The government should also improve rewarding systems for teachers in order to motivate them and boost their performance. There should also be regular inspections to inspire teacher performance, provide support, and improve the quality of their teaching. This will improve quality of education offered in schools.

iii. For objective three family based factors in objective three, the less fortunate households should be supported by all stakeholders including NGOs so that they are able to meet both direct and hidden costs of education and in turn support themselves and the schools. This would also bring pay-off in the education sector in that it would reduce the incidence of parents sending their children to work so as to supplement family income.
If parents cannot provide adequate instructional materials as required by the cost-sharing policy, the pertinent issue is whether the policy is still relevant. Therefore, there is need to evaluate the policy in an attempt to ensure that there is a balance between Government support including instructional materials and ability of parents to support their children with a view to increase allocation to schools.

For objective four, the study recommends the strengthening of the guidance and counseling departments in the secondary schools to deal with students who get sucked in peer pressure and are engaging in teenage sex and drugs, this further call for in servicing of the guidance and counseling department teachers on the best practices in guidance and counseling today.

5.4.2 Suggestions for Further Research

The following were suggested for further research

- It is necessary to carry out a similar study in the Primary institutions to establish if the trend is similar to that of secondary schools
- Similar study to be done in other districts where no such studies have been undertaken.
- A study on how to peg disbursement of free learning funds on regional poverty index could also add to this body of knowledge and mitigate educational wastage due to poverty.
REFERENCES


Gay, L. (1992). *Education research: Competence for analysis and application.* Columbus Ohio, Merill


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Dear Sir/Madam,

RE: CONFIDENTIAL QUESTIONNAIRE

I am carrying out a research project under the School of Education on INTERNAL EFFICIENCY ON SUBSIDIZED BASIC EDUCATION IN NZAUI SUB COUNTY, MAKUENI COUNTY, KENYA FOR 2003 – 2014 COHORTS. You are kindly requested to participate in this study. Kindly answer these questions as candidly as possible. There are no wrong or correct answers, it is your opinion that is important, and you answers will be treated with confidentially.

Yours faithfully,

ANNAH WAMBUA

Med Student
APPENDIX II

TEACHERS' QUESTIONNAIRE

I am carrying out a research project under the School of Education on INTERNAL EFFICIENCY ON SUBSIDIZED BASIC EDUCATION IN NZAUI SUB COUNTY, MAKUENI COUNTY, KENYA FOR 2003 – 2014 COHORTS. You are kindly requested to participate in this study. Kindly answer these questions as candidly as possible. There are no wrong or correct answers, it is your opinion that is important, and you answers will be treated with confidentiality.

Personal Information

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

2. Which is your highest academic qualification?
   
   Diploma [ ]   Bachelor’s degree [ ]
   Master’s Degree [ ]

3. What is your teaching experience?
   
   Below 5 years [ ]   6-8 years [ ]   9-11 years [ ]
   12-14 years [ ]   Over 15 years [ ]

Effect of Education Policies on Internal Efficiency

4. The number of students who are absent due to non-payment of fees under FDSE
   
   Has reduced [ ]   Has increased [ ]   Has not changed [ ]
5. After introduction of FDSE policy, the number of days that a student stays at home due to non-payment of fees
   Has reduced [ ]  Has increased [ ]  Has not changed [ ]

6. We are required to pay some cash as contribution to our school funding.
   Strongly Agree [ ]  Agree [ ]  Disagree [ ]
   Undecided [ ]

7. Many activities are adequately funded by the school.
   Strongly Agree [ ]  Agree [ ]  Disagree [ ]
   Undecided [ ]

8. The availability of sufficient funds in our school has reduced school dropouts and increased on promotion rates.
   Strongly Agree [ ]  Agree [ ]  Disagree [ ]
   Undecided [ ]

9. What is the average cost per student enrolled between 2011-2014? 
   2011 ........................................
   2012 ........................................
   2013 ........................................
   2014 ........................................
10. To measure internal efficiency, kindly indicate the number of students who have repeated, Dropout, Completion/Graduation rate and transition to Universities between years a class in the Table below

<table>
<thead>
<tr>
<th>Statement</th>
<th>Genders</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repetitions</td>
<td>Boys</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dropouts</td>
<td>Boys</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completion/graduation</td>
<td>Boys</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transition</td>
<td>Boys</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. How do teachers influence the promotion rates in your school? .................................

School based Factors and Internal Efficiency

12. What is the level of school attendance by the students in your class and the school as a whole?

   Excellent [ ]  Good [ ]  Satisfactory [ ]  Poor [ ]

13. What is the Pupil-Teacher Ratio in your class? ..........................................................
14. What is the Pupil-Textbook Ratio per subject in your class?

<table>
<thead>
<tr>
<th>Subject</th>
<th>PTR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td></td>
</tr>
<tr>
<td>Kiswahili</td>
<td></td>
</tr>
<tr>
<td>Physics</td>
<td></td>
</tr>
<tr>
<td>Chemistry</td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td></td>
</tr>
</tbody>
</table>

15. Our school has adequate instruction materials and this facilitates efficiency.

- Strongly Agree [ ]
- Agree [ ]
- Disagree [ ]
- Undecided [ ]

16. Meetings are regularly held at school for the good and smooth running of our institution.

- Strongly Agree [ ]
- Agree [ ]
- Disagree [ ]
- Undecided [ ]

17. In my view the availability of instructional materials influences Internal Efficiency.

- Strongly Agree [ ]
- Agree [ ]
- Disagree [ ]
- Undecided [ ]
18. The following are types of materials used in our secondary school. Tick according to your choice showing their adequacy. Tick only once per attribute

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adequate</td>
</tr>
<tr>
<td>Textbooks</td>
<td></td>
</tr>
<tr>
<td>Furniture</td>
<td></td>
</tr>
<tr>
<td>Science equipment</td>
<td></td>
</tr>
<tr>
<td>Laboratory equipment</td>
<td></td>
</tr>
<tr>
<td>Sports facilities</td>
<td></td>
</tr>
<tr>
<td>Teaching aids</td>
<td></td>
</tr>
<tr>
<td>Blackboards and Chalk</td>
<td></td>
</tr>
<tr>
<td>Human resources</td>
<td></td>
</tr>
<tr>
<td>Instructional Materials</td>
<td></td>
</tr>
</tbody>
</table>

19. Our school has sufficient funds to run it and hence there is internal efficiency.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td></td>
<td>Agree</td>
</tr>
<tr>
<td>Undecided</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

20. How does the staff influence school dropout rates?

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td></td>
<td>Agree</td>
</tr>
<tr>
<td>Undecided</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

21. Do you think repetition rates of students are as a result of teachers work?

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
</tr>
<tr>
<td>Undecided</td>
</tr>
</tbody>
</table>

22. What is the general comment on your school internal efficiency?

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td></td>
<td>Agree</td>
</tr>
<tr>
<td>Undecided</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Family and Society based Factors and Internal Efficiency

23. What are the reasons that contribute to drop-outs in your school?

<table>
<thead>
<tr>
<th>Reasons</th>
<th>Frequency(no. of drop out as per reason)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of school fees</td>
<td></td>
</tr>
<tr>
<td>Lack of support from family members</td>
<td></td>
</tr>
<tr>
<td>Family problems</td>
<td></td>
</tr>
<tr>
<td>Lack of interest in schooling</td>
<td></td>
</tr>
<tr>
<td>Poor performance</td>
<td></td>
</tr>
<tr>
<td>Indiscipline</td>
<td></td>
</tr>
<tr>
<td>Health problems</td>
<td></td>
</tr>
<tr>
<td>Peer pressure</td>
<td></td>
</tr>
<tr>
<td>Distance from school</td>
<td></td>
</tr>
<tr>
<td>Effect of drugs</td>
<td></td>
</tr>
<tr>
<td>Teenage pregnancy</td>
<td></td>
</tr>
<tr>
<td>Early marriage</td>
<td></td>
</tr>
<tr>
<td>Cultural practices like circumcision</td>
<td></td>
</tr>
</tbody>
</table>

Mitigation Measures and Mechanisms to enhance Internal Efficiency

24. What is the government's contribution towards quality of education in your school

25. Suggest ways in which this internal efficiency in secondary schools can be improved further
APPENDIX III

STUDENTS QUESTIONNAIRES

I am carrying out a research project under the School of Education on INTERNAL EFFICIENCY ON SUBSIDIZED BASIC EDUCATION IN NZAUI SUB COUNTY, MAKUENI COUNTY, KENYA FOR 2003 – 2014 COHORTS. You are kindly requested to participate in this study. Kindly answer these questions as candidly as possible. There are no wrong or correct answers, it is your opinion that is important, and you answers will be treated with confidentiality.

1. Gender
   Male [ ]  Female [ ]

2. How old are you? ....................... Years.

3. Are you a boarder or a day scholar in your school? (Tick the right one)
   Boarder [ ]  Day scholar [ ]

4. In which class are you?
   Form I [ ]  Form II [ ]
   Form III [ ]  Form IV [ ]

5. What is the enrollment in your class? ..........................................................

6. How many students have dropped out of school this year? .........................

7. Why do they drop out? Show how many dropped due to specified reason
   Lack of school fees [ ]  Permissiveness [ ]
   Child labour [ ]  Pregnancy [ ]
Poverty [ ] Indiscipline [ ]
Lack of learning facilities in the school [ ]
Others (specify) .................................................................

8. In your own opinion, what is the possible solution to curb the problem of dropout?
   i. ........................................................................................................
   ii. ........................................................................................................
   iii. ........................................................................................................
   iv. ........................................................................................................

9. a) Do you have students who are repeaters in your class?
    Yes [ ] No [ ]
    b) If your answer in 9(a) above is yes, why did they repeat? ........................................

10. What is the performance of the repeater?

    Excellent [ ] V. good [ ] Average [ ]
    Poor [ ] V. poor [ ]

11. a) Have ever been sent away from school? Yes? No (tick the correct answer.
    b) If yes in 11(a) above, which of the following reasons applies to you?
       Due to indiscipline [ ] To collect school fees [ ]
       To collect learning materials such as calculators and text books [ ]
       Due to poor academic performance [ ]
       Any other reason specified ........................................................................
12. On average how times are sent away from school per term.

13. Are you aware of any student who has dropped out of school in your class? Tick the correct answer. Yes [ ] No [ ]

14. For what reason did you dropped out of school?

15. How many students have dropped out of school since you joined this school?

16. How many students did your class have:
   a) The beginning of the current year?
   b) At the end of the current year?

17. What has your average grade in the last one year?
   A [ ] B [ ] C [ ]
   D [ ] E [ ]

18. What is the reason for your performance?

19. What solution(s) would you suggest to the problem of drop out at the Secondary level? Tick
   Provide free basic education [ ]
   Allow girls to join school after giving birth [ ]
   Revision of curriculum [ ]
   Teachers to be friendly to students [ ]
   Others (specify) .................................................................
APPENDIX IV
INTERVIEW GUIDE FOR HEAD TEACHERS

I am carrying out a research project under the School of Education on INTERNAL EFFICIENCY ON SUBSIDIZED BASIC EDUCATION IN NZAUI SUB COUNTY, MAKUENI COUNTY, KENYA FOR 2003 – 2014 COHORTS. You are kindly requested to participate in this study. Kindly answer these questions as candidly as possible. There are no wrong or correct answers, it is your opinion that is important, and you answers will be treated with confidentiality.

1. How long have been the principal of this school?
2. How many streams did the school have in 2011, 2012, 2013, and now 2014?
3. What is the current student population in the school and in the entire school?
4. Do you have cases of students dropping out of school for the four years? If yes, what are the reasons behind their dropping out of school?
5. How do you think the teaching staff can cause dropout rates in the school?
6. What role does the teaching staff play in the promotion of students’ academic excellence?
7. In your view, what do you think causes high repetition rates in a school?
8. What are some of the requirements for students to be in your school?
9. How do you think the Free Day Secondary Education has any positive impact on retention of students in schools?
10. How has the FDSE policy affected performance in this school?
11. How has introduction of FDSE policy affected enrolment/school size?
12. What is the official school official CBE (Curriculum Based Establishment)?
13. How many teachers are on duty currently
14. What is the shortfall?
15. How do you meet this shortfall?

16. How do you think instructional materials can affect students' academic performance in a Secondary school?

17. Is your school sufficiently funded?

18. How do you think the motivation of your staff has influenced your school performance?

19. What are some of the difficulties you face in this school in your capacity as the administrator the school?

20. Suggest some ways of improving some of the difficulties faced at school.

21. What is the effect of Education Policies on Internal Efficiency in your school, briefly explain?

22. List a few mitigation measures to enhance completion rates in basic education
Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR MS. ANNAH W. WAMBUA - REG. NO. E55/26305/11

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

Ms. Wambua intends to conduct research for a thesis Proposal entitled, “Establishing Internal Efficiency in Relation to Retention and Completion in Basic Education for 2003-2014 Cohorts in Nzau Sub County, Makueni County, Kenya”.

Any assistance given will be highly appreciated.

Yours faithfully,

MRS. LUCY N. MBAABU
FOR: DEAN, GRADUATE SCHOOL
APPENDIX VI

NACOSTI RESEARCH AUTHORIZATION

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471, 2241349, 310571, 2219420
Fax: +254-20-318245, 318249
Email: secretary@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote
Ref: No.

NACOSTI/P/15/3156/4620

Annah Wanee Wambua
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "Establishing internal efficiency in relation to retention and completion in basic education for 2003-2014 Cohorts in Nzau Sub County, Makueni County, Kenya" I am pleased to inform you that you have been authorized to undertake research in Makueni County for a period ending 30th June, 2015.

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

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

DR. M. K. RUGUTT, PhD, HSC
DIRECTOR GENERAL/CEO

Copy to:

The County Commissioner
Makueni County.

The County Director of Education
Makueni County.
APPENDIX VII

RESEARCH CLEARANCE PERMIT

THIS IS TO CERTIFY THAT:
MS. ANNAH WANEE WAMBUA
of KENYATTA UNIVERSITY, 0-90132
NAIROBI, has been permitted to conduct
research in Makueni County

on the topic: ESTABLISHING INTERNAL
EFFICIENCY IN RELATION TO RETENTION
AND COMPLETION IN BASIC EDUCATION
FOR 2003 - 2014 COHORTS IN NZAU Sub County, MAKUENI COUNTY, KENYA

for the period ending:
30th June, 2015

Applicant's
Signature

CONDITIONS

1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit
2. Government Officers will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two (2) hard copies and one (1) soft copy of your final report.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice.