INFLUENCE OF TUITION FREE SECONDARY EDUCATIONAL SUBSIDY ON STUDENTS' PARTICIPATION RATES IN PUBLIC SECONDARY SCHOOLS IN KASARANI, NAIROBI COUNTY, KENYA

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The research project submitted to the department of education administration and planning in partial fulfillment of the requirements for award of Master of Education Degree in Economics of Education

University of Nairobi

2018

DEDICATION

I dedicate this work to my husband Dr. David Lelei and our children Ruth,

Phoebe, Deborah, Hope and Esther.

ACKNOWLEDGEMENT

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LIST OF ABBREVIATIONS AND ACRONYMS

ASAL   Arid and Semi-Arid Lands

EFA   Education for All

EFAGMR   Education for All Global Monitoring Report

FSE   Free Secondary Education

GDP   Gross Domestic Product

NACOSTI   National Council for Science, Technology and

                Innovation

SDG   Sustainable Development Goals

UDHR   Universal Declaration of Human Rights

UNESCO   United Nations Educational, Scientific and Cultural

                Organization

ABSTRACT

The purpose of study was to investigate the influence of tuition free secondary educational subsidy on students' participation rates in secondary schools in Kasarani Sub County, Nairobi County, Kenya. The study aimed at achieving the following objectives; to determine the effect of tuition free secondary education subsidy on equity in students' enrollment, dropout rates, retention rates, and completion rates in public secondary education. The study was based on Human capital theory developed by Schultz in 1971. The study adopted descriptive survey design a method. The study targeted all the 18 schools in the Sub County, 18 principals from the schools, twenty-six class teachers and one thousand one hundred and thirty-eight form three students. Ten are mixed public secondary school and were purposively selected for this study. Ten Principals from the schools and twenty-six class teachers were also purposively selected for the study from the Sub County. The sample size of 30 percent of the students' population Out of 1138 students from form 3 targeted for the study, 700 were boys while 438 were girls. The sample therefore included 210 boys and 131 girls. Simple random sampling was then done in each school visited. Questionnaires were used to gather information from the teachers and students while interview schedule was used to collect data from the Principals. Piloting of the instruments was done in one school which did not participate in the study. Content validity were undertaken to ascertain whether the content to the questionnaires. The researcher visited the schools and introduced herself to the Principals and booked appointment for data collection. A correlation coefficient of 0.74, 0.78, and 0.71 was obtained from the questionnaire for principals, teachers and students respectively, which showed that the instruments were highly reliable. Collected date were analyzed both qualitatively and quantitatively and results presented in frequency distribution tables and interpreted to answer on the study objective. The findings of the study were intended to be benefit the government to adequately subsidize secondary education as well as the ministry of education in ensuring equity in distribution of educational resources. The findings were presented using frequency distribution tables and bar graphs. The results showed that effective and efficient utilization of tuition free subsidy led to increased equity in enrollment rates of students in secondary education. It was established that tuition free secondary education subsidy reduced students' dropout rates. The study revealed that tuition free secondary education subsidy increased students' retention rates indicated by reduced repetition rates. The study established that the subsidy was very effective in increasing completion rates. The study recommended that the subsidy be increased to cover levies for lunch and school uniforms and should be disbursed on time. Finally, the study concluded that tuition free secondary education subsidy played a very important role in increasing students' participation rates in secondary education.

CHAPTER ONE
INTRODUCTION

1.1 Background to the study

Education greatly determines the social, cultural, political and economic development of a country (UNESCO, 2014). It's a means for training human resource that forms an important source of human capital. Higher participation rate in secondary education is significantly correlated to economic growth, social development and to the realization of Sustainable Development Goals (SDGs) (UNESCO, 2014), on improvement in individual earnings, decline in fertility and child mortality and increase in overall health and nutritional levels of a nation. UNESCO, (2014) considered dropout in education sector as a loss to a nation and that it shows unfulfilled aim, goal and objective for an individual and the community. Students who drop out at secondary level means a great loss of potential future work force to a country. This justifies the higher expenditure on education by many national governments which is estimated to be between 4 to 6 percent of their GDP (Martinez & Terway, 2016).

Many countries allocate huge financial resources to education mainly because education is a basic need to human beings. The right to education can be traced to the 1948 Universal Declaration of Human Rights (UDHR) article 26 which declared that; everyone has the right to education and that it shall be free at least in the elementary and fundamental stages. Basic education is embedded in the developing countries' constitutional frameworks as a fundamental human right that does not necessarily stipulate abolition of school fees (Akyeampong, 2011). A report from UNESCO (2007) revealed that one in every five countries

was not able to constitutionally guarantee free and compulsory primary education which translated that the proportion rises to one in three in North America as well as Western Europe.

In USA, secondary education is provided for free by the government. The subsidy is at three echelons: the federal local, and state governments. Local authorities funding of education varies depending on regions due to disparities in the economies of states similarly, investment in education within the same state differs. While in Canada school fees are integrated in the education system, the government finds that there are parents not able to afford school fees. This inability makes the government to intervene in the provision subsidy education ensuring no child gets denied access to education (Khamati & Nyongesa, 2013). In the UK, conditional cash transfers paid to 16 to 18-year old was very effective in reducing dropout rates, it increased full time participation rates to 4.5 percent in the first year and 6.7 percent for those receiving two years of education. (Dearden *et al*, 2005).

Some countries such as Chile and Columbia offer educational vouchers for private secondary schools. The vouchers in Columbian schools saw 86 percent of voucher winners being promoted to sixth grade compared to 80 percent of losers (Angrist, 2006). Introduction of free schools financed through voucher system in Sweden resulted in increased expansion of non-public school sector. It increased the number of pupils in free schools from 20,247 in 1995/96 to 95,948 pupils in 2009/10 (Wilborg, 2010).

Secondary education in many Asian Pacific countries is considered part of basic education and is provided legally free UNESCO (2013). For example, in 1954, free compulsory education in South Korea got introduced but was gradually rolled out over six-year period. The initiative was supported by an institution of the Education Tax Act of 1958 and remote aid. Through this policy education saw increased enrollment with net enrollment rate of 88 percent in the year 2002/2003 (UNESCO, 2013). Some countries use targeted measures to increase students' participation in school, for instance in Mongolia children from families below poverty line receive free school bags, stationery and textbooks, while in Bangladesh secondary education was made free for girls to reduce gender inequality. In Philippines in the year 2001, each student was granted US 1000 dollar per year and this led to increased enrollment in 1990s from 0.2 million to 2.4 million students in 2004 (Aysegun, 2004; Susan, 2003). These measures were aimed at effectively improving enrollment, retention and reducing dropout rates in the countries (UNESCO, 2013).

Egyptian government took up the responsibility of financing and supervising education since 1950s and aimed at achieving principles of justices, equality and equal opportunity (UNESCO, 2014). The cost of education is Nigeria shared between the government and the parents and where parents are not able to meet the costs, the children may not enroll or may drop out despite the government funding (Adan & Orodho, 2015; Khamati & Wesonga, 2013).

Free Secondary Education in Tanzania was to give opportunity to children from low income families and at the same time reduce parents 'school fees and

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other contributions (Asankha and Takashi, 2011). Thus, there was increased enrollment of students from poor families and reduced teacher parent conflict over fee contribution. Tanzania's Gross Domestic Product (GDP) as per 2015/16 budget stood at Tshs. 23 trillion, out of this it spends 3.5% of GDP on education. Increase in budgetary allocation to secondary education led to increasing in enrollment from 6.7% to 32.7% from the year 2003-2014 respectively. Because of increased financing of education, completion rates in the lower secondary improved from 14.2 to 35.1 percent in the year 2008 to 2013 respectively (UNICEF, 2015).

 Introduction of universal secondary education in Uganda increased participation rates by 90 percent up from 150,000 to 380,000 students (Asankha and Takashi, 2011) and enrollment of girls from poor households increased. Even though education has traditionally been free in Tanzania, Uganda, and Zambia, a supplementary of beyond a half of the total costs of secondary education is funded by parents (Lewin, 2008). Some students may however drop out of school due to inability to pay the school fees, hampering attainment of the objective of free secondary education.

Free secondary Education in Kenya was officially launched in the year 2008 and was implemented through sessional paper number 6 of 1988 (GOK, 1888) to address issues of accessibility, retention and completion rates. Enrollment rates in secondary education have continued to rise for instance gross enrollment rate increased from 58.7 percent in 2014 to 62.9 percent in 2015 (Economic survey, 2016). This increase is attributed to availability of educational subsidies. Free secondary education forms part of the cost sharing

policy of 1988 (GoK, 1988). The policy was to reduce the cost burden on the government, while ensuring cost effectiveness in the utilization of educational facilities, equipment, materials, and personnel, with a view to maintaining the growth, quality, and relevance of education and training. The cost of education according to the policy was to be shared between the public

Sector and parents/guardians (GoK, 1988), whereby parents/guardians contributed 60 percent, while the government contributed 40 percent of the total expenditure of secondary school education (Mwangie, 2012). Parents contributed towards cost of physical infrastructure as well as tuition, boarding, transport and uniforms whereas, the government's contribution included the cost of professional development of teachers, teachers' remuneration in public institutions, and support of infrastructure development, administration and management, and provision of subsidies including capitation grants for Free Secondary education (FSE), bursaries, scholarships and constituency development fund (CDF).

This notwithstanding, the study by Khamati and Nyongesa, (2013) found out that free secondary education finances were distributed to schools based on the number of learners in the school a method that disadvantaged the schools with few students and favored already established schools, and those with many students enjoyed economies of scale. This method of distributing the tuition subsidy did not consider regional disparities and inflationary effects. Since the fund is horizontally distributed to each student enrolled in public secondary school, it does not guarantee equity since both the students from the rich and the disadvantaged get equal allocations from the government fund.

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The revised school fees structure Matiangi, (2016), government subsidy for tuition was Kshs. 12,870 per student per year. Out of this Kshs. 4,792 is allocation for teaching learning resources and examination. Parents/guardians contribute Kshs. 53,554 for boarding schools and Kshs. 9,374 for day schools to Ksh. 12,870 which translate to 19.4 percent and 57.8 percent respectively (MOEST, 2015). The subsidy was later increased to Ksh 22,272 per student for both day scholars and boarders and effected at the beginning of the year 2018. The aim was to make day schools totally free and relief parents the burden of paying school fees. This is evident that parents'/guardians' contribution to secondary education is higher and some students especially from low socio-economic backgrounds may not be able to meet the school fees.

Dropout is a case where children leave school before completing prescribed cycle of education (Mudenb, 2013). High poverty levels in many households have led to students' dropping out from schools to search for employment to supplement family incomes (Nyawada, 2015). Many strategies have been put in place to enhance retention rates in secondary education in many countries of the world including Kenya. Retention involves learner participation in learning even to completion of the four-year cycle (Asena *et al.* 2016). High enrollment rate was not consistent with completion rates due to inadequate physical facilities which are not developed to meet the increasing demand for secondary education and school funds which are a challenge because parents are still expected to meet educational costs (Kinaro, 2015). Although tuition free educational subsidy has contributed to the increased enrollment and retention rates of students in public secondary schools, there are still several students

who dropout. The table below shows the national participation rates of students in consecutive transition periods from the year 2011 to 2017.

Table 0.1: Enrollment, transition and dropout rates of students in secondary schools in Kenya

Years	Form 1	Form 2	Form 3	Form 4
2011	445300			
2012	489900	443900		
2013	521600	460000	413000	
2014	532100	513900	457400	411300
2015		542000	496100	448700
2016			537900	461600
2017				507400

Source: GoK (2017), Economic Survey

Table 0.2: Number of students' dropout

Years	Form 2	Form 3	Form 4
2012	1400		
2013	29900	30900	
2014	7700	2600	1700
2015	+9800*	17800	8700
2016		4000	34500
2017			30500

Source: GoK (2017), Economic Survey

The two tables show four transition periods from when a student is enrolled in form one to when he or she completes form four. It shows that students participation rates in Kenya from the year 2011 to 2017 increased (Table 1.1), however, dropout rates in consecutive years of transition continued to increase leading to reduced completion rates. Dropout rates increased over the four transition periods from 2011 to 2017 (Table 1.2), however, in the year 2015-2016, form two the number of students increased. Similarly, in Kasarani Sub County, the data from seven public schools over three transition periods shows

that there are still students who enroll and are unable to complete the four-year secondary school cycle (Table 1.3).

Table 0.3: Students' enrollment and completion rates in Kasarani Sub County

Transition period	Students enrolled	Completion	Dropout	%
2011-2014	970	770	200	21
2012-2015	1047	977	70	7
2013-2016	1032	947	85	8

Source: Kasarani Sub- County data

The data above (Table 1.2) shows the number of students who enrolled and completed secondary education in three transition periods from year 2011 to 2016 in Kasarani Sub County. The total number of students who completed the four-year cycle is lower compared to those who enrolled, for instance between 2011 to 2014, 200 students did not complete the four-year cycle representing 21 percent of those enrolled. This is an indication of an underlying problem that affects student's participation in secondary education in the Sub County. This therefore prompted the researcher to find out the extent to which effective and efficient utilization of tuition free secondary education subsidy has contributed to students' participation rates in the Sub County.

1.2 Statement of the problem

The cost of education in Kenya has continued to escalate over the years due to rising cost of living (Mauluko & Muhavi, 2013) and that many people from the low-income group are finding it difficult to maintain their children in secondary school which hampers gains made on participation rates. The introduction of government education subsidies in secondary education was a

measure taken to cushion parents from high costs of education and to increase access, retention and completion rates in school (Republic of Kenya, 2012). The government has put in place several other measures such as educational bursaries targeted to support the needy students and waiver of examination fees. The Kenya government has also introduced physical infrastructure fund for construction of classrooms, dormitories, sanitation and libraries and has set up numerous secondary schools. Though enrollment rates and transition rates have been increasing in Kenyan education since introduction of tuition free secondary education, there are still several students who do not complete their secondary education. Several studies on this area have concentrated on influence on implementation of Tuition waiver, effect of bursaries and Constituency development fund and students' enrollment as well as retention and completion rates in secondary schools (Mwangie, 2012; Khamati & Nyongesa, 2013; Nyawada, 2015). Studies on the effect of tuition free secondary educational subsidy have not been done in Kasarani Sub County.

The researcher therefore critically analyzed the effectiveness of tuition free secondary educational subsidy in ensuring full participation of students in secondary education in Kasarani Sub County.

1.3 Purpose of the study

The purpose of study was to investigate the influence of tuition free secondary educational subsidy on students' participation rates in secondary schools in Kasarani Sub County, Nairobi County, Kenya.

1.4 Research Objectives

The study aimed at achieving the following objectives

    i.   To determine the effect of tuition free secondary education subsidy on equity in students' enrollment in public secondary education in Kasarani Sub County.

    ii.   To establish the effects of tuition free secondary education subsidy on students' dropout rates in public secondary schools in Kasarani Sub County.

    iii.   To assess the effects of tuition free secondary education subsidy on students' retention rates in public secondary schools in Kasarani Sub County.

    iv.   To determine the effect of tuition free secondary education on completion rates in public secondary education in Kasarani Sub County.

1.5 Research questions

The study was guided by the following questions

    i.   To what extent does tuition free secondary education subsidy influence equity in enrollment rates in public secondary schools in Kasarani Sub County?

    ii.   What is the effect of tuition free secondary education subsidy on dropout rates in secondary education in Kasarani Sub County?

iii.   To what extent does tuition free secondary education subsidy affect retention rates of students in public secondary schools in Kasarani Sub County?

iv.   What is the effect of tuition free secondary subsidy on completion rates of students in Kasarani Sub- County?

1.6 Significance of the study

The findings of this study may help the government to adequately subsidize secondary school education to enhance equal access to quality education by all secondary school going age and maximize their participation in schools. It is also hoped that the findings will further be useful to the Ministry of education in ensuring equitable distribution of educational resources, effectively and efficiently utilize of educational subsidies to achieve maximum students' participation in secondary education. The findings may also help the school administrators to make necessary changes in the utilization of schools' resources to improve their internal efficiency and promote students' participation.

1.7 Limitations of the study

The study required gathering information on enrollment, transition and completion rates from different schools in some schools these records were missing. Some respondents took too long to return the questionnaires and others kept losing the instruments. To overcome these challenges and persistently that the findings were only to be used in the study.

1.8 Delimitations of the study

The study was carried out in Kasarani Sub County in public secondary schools, in Nairobi County. Only tuition free secondary education subsidy is the subject of study as the only subsidy without considering other government subsidies. The information from the principals, class teachers and selected form three students from questionnaires and interview schedule were used make generalization.

1.9 Assumptions of the study

The study was based on the following assumptions:

  i.   That there are proper records of enrolment and completion rates and record of the use of government funding in the secondary schools by the administrators

  ii. That the respondents shall be ready to give their responses to the questionnaires within the time limit.

  iii. That the students and are aware of the government finances allocated to them.

1.10 Definitions of significant terms

Dropout rates refer to the percentage of students who enroll in secondary education but exit before completion of the four-year cycle as per Kenyan education system.

Education subsidy is Government capitation grant provided for financing secondary education in Kenya.

Enrollment refers to students that get admitted to secondary schools at specific grades

Equity refers to justice and fairness in allocation of tuition free secondary education subsidy irrespective of gender, socio- economic background and region.

Influence refers to the extent of the effect of tuition free secondary educational subsidy on students' participation rates.

Participation rate refers students' involvement in secondary education indicated by enrollment rates, dropout rates, retention rates and completion rates

Tuition Free secondary education fund is a capitation grand provided by the government and is allocated to each student who enrolls in public secondary education in Kenya.

1.11 Organization of the study

The study is organized in five chapters. Chapter one presents the introduction covering the background of the study, statement of the problem, research objectives, research questions, limitations and delimitation of the study, key assumptions and definitions of key terms. Chapter two covers review of related literature which entails introduction to review of related literature, theoretical framework and conceptual framework. Chapter three focuses on research methodology covering the research design, target population, sample size and sampling procedure, research instruments, validity and reliability of

instruments, data collection procedures and data analysis techniques. Chapter four is concerned with data analysis and interpretation which entails description and analysis of data, discussion and interpretation. Finally, chapter five deals with summary of highlights of the study, conclusions, recommendations and suggestions for further research. There are also sections of references and appendices.

CHAPTER TWO
REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter presents literature related to tuition free secondary educational subsidy and students' participation rates in secondary education. It contains the following themes; tuition free secondary policy, tuition free secondary education subsidy and student's enrollment, tuition free subsidy on equity in enrollment to secondary education, tuition free secondary education subsidy and retention rates, theoretical framework, conceptual framework and summary of the review of related literature.

2.2 Concept of students participation in secondary education

Participation in education is measured with enrolment, retention, dropout, and completion. To increase participation governments around the world have put effort to reduce the costs by offering subsidy for the parents/guardians to contribute 60 percent, while the government contribute 40 percent of the total expenditure of secondary school education (Mwangie, 2012). Parents contributed towards cost of physical infrastructure as well as tuition, boarding, transport and uniforms whereas, the government's contribution included the cost subsidies including capitation grants for Free Secondary education (FSE), bursaries, scholarships and constituency development fund (CDF). A study by Khamati and Nyongesa, (2013) found out that free secondary education finances were distributed to schools based on the number of learners in the school a method that disadvantaged the schools with few students and favored

already established schools, and those with many students enjoyed economies of scale. This method of distributing the tuition subsidy did not consider regional disparities and inflationary effects. Since the fund is horizontally distributed to each student enrolled in public secondary school, it does not guarantee equity since both the students from the rich and the disadvantaged get equal allocations from the government fund.

The revised school fees structure Matiangi, (2016), government subsidy for tuition was Kshs. 12,870 per student per year. Out of this Kshs. 4,792 is allocation for teaching learning resources and examination. Parents/guardians contribute Kshs. 53,554 for boarding schools and Kshs. 9,374 for day schools to Ksh. 12,870 which translate to 19.4 percent and 57.8 percent respectively (MOEST, 2015). The subsidy was later increased to Ksh 22,272 per student for both day scholars and boarders and effected at the beginning of the year 2018. The aim was to make day schools totally free and relief parents the burden of paying school fees. This is evident that parents'/guardians' contribution to secondary education is higher and some students especially from low socio-economic backgrounds may not be able to meet the school fees. Although tuition free educational subsidy has contributed to the increased enrollment and retention rates of students in public secondary schools, there are still several students who dropout. The table below shows the national participation rates of students in consecutive transition periods from the year 2009 to 2015.

2.3 Tuition free secondary education policy

Kenya government recognizes education as a major form of investment in human resource. Education can, by increasing learner's intellect, lead to improved quality of life, may improve individual's skills and efficiency in producing material goods of better quality (Machlup, 1982). Tuition free secondary education subsidy as a form of investment in human capital through secondary education was introduced in 2008 (Republic of Kenya, 2008) with the aim of increasing access, retention and hence completion rates of students in secondary schools. The subsidy was intended to reduce the burden to parents of the cost of school fees as well as increase participation of students in secondary education irrespective of socio- economic background.

Tuition free secondary education subsidy policy in Kenya gives a capitation grant of Kshs. 12,870. It's provided by the government of Kenya to meet the cost of tuition per student in public secondary schools. The disbursement of the fund is in three batches in the ratio 50:30:20 in term one, term two and third term respectively (MOEST, 2015). The fund is equally distributed to each student irrespective of whether in a Boarding or Day secondary school, from poor or rich background or from ASAL or non ASAL regions. Financing of secondary education in many OECD countries dictated the per pupil - per class basis on the allocation of resources to make sizable adjustment to the schools' account (Briseid, Caillods, Lugaz and Murtin, 2004).

2.4 Tuition free subsidy on equity in enrollment to secondary education

EFA Global Monitoring Report, UNESCO (2010) indicated that 72 million children who were still missing out of school were mostly Africans and hence urges countries to develop more inclusive approaches of protecting vulnerable population. It also emphasized eradicating inequalities by the year 2015 in line with EFA goal 2 (Njoka *et al.* 2012). Introduction of Universal secondary school policy in Uganda led to increased enrollment of girls and especially the ones from poor backgrounds (Asankha and Takashi, 2011).

The Kenya government strives to achieve the EFA goal by ensuring equity in provision of educational resources. It has over the years aimed for equity in education across geographical regions, gender and levels of education through ensuring equitable distribution of educational resources and opportunities, process and outcomes (Njoka *et al.* 2012). Low transition rates of students especially girls have been a great restriction to Kenya in achieving gender equity regarding educational development (Kibui and Mwaniki, 2014).

The government's contribution of Ksh. 12,870 per year per student towards free tuition is one of the ways of redistribution of educational resources. It however noted that this fund is distributed equally to all students enrolled in schools irrespective of socio-economic backgrounds or gender. This kind of distribution does not guarantee equity, although the rich and the poor students are given equal allocation, yet the poor may not be able to top up the difference to cater for all school fees requirement (Mauluko and Muhavi, 2013).In addition, other tuition charges had been introduced in most schools including

charges for duplicating materials, remedial and motivation without official approval (Wamo, 2009).

Most of the countries globally use targeted measures to increase students' participation in school. Different governments over the years took up the responsibility of financing and supervising education since 1950s and aimed at achieving principles of justices, equality and equal opportunity (UNESCO, 2014). The cost of education is free while senior secondary school, students are required to purchase text books and school uniforms (Khamati & Wesonga, 2013). The shared cost between the government and the parents and where parents are not able to meet the costs, the children may not enroll or may drop out despite the government funding (Adan and Orodho, 2015). The rich therefore have a higher chance of retention by topping up fees for their children while the poor may drop out of school creating intergenerational inequalities. Equitable and timely distribution of the education subsidy would enhance students' enrollment.

2.5 Tuition free secondary education subsidy on students' dropout rates

The main goal of tuition free secondary education policy was to promote enrollment and reduce dropout rates by decreasing the tuition costs (Republic of Kenya, 2008). Dropout is a case where children leave school before completing prescribed cycle of education (Mudenb, 2013). High poverty levels in many households have led to students' dropping out from schools to search for employment to supplement family incomes (Nyawada, 2015). Other factors that cause students' dropouts include low self-esteem, teenage pregnancies ,low

occupational aspirations and negative attitude towards schooling (Onsomu &
Muthaka, 2006). On the other hand, Nyawada, (2015), in his study found out
that tuition free secondary subsidy was effective in reducing dropout since the
poor could afford the school fees even though the subsidy faced the challenge
of delayed disbursement and inadequacy per student. Inadequate financing of
the students education is unsustainable to retain the students in learning
institutions for long before they are sent home for additional fundings to
complement their arrears (Anyango, 2012).

2.6 Tuition free secondary education subsidy and students' retention rates

Many strategies have been put in place to enhance retention rates in secondary
education in many countries of the world including Kenya. Retention involves
learner participation in learning even to completion of the four-year cycle
(Asena *et al.* 2016). Introduction of tuition free secondary education is one of
the strategies for ensuring retention of students in secondary schools in Kenya.
A persistent constraint in attainment of EFA goals is the rate of drop out from
education system. Despite the success in attainment of high enrollment rate
into secondary school there is no consistent reflection on completion rates due
to factors such as inadequate physical facilities and inadequate instructional
materials, the cost of which are meant to be met using tuition capitation grant
(Kinaro, 2015).

People in the low socio-economic group find it difficult to sustain their
children in schools, which reduces the gains of students' participation in
education (OECD, 2012). There are potential and actual secondary school

learners who are kept at home due to lack of school fees because of inadequate education subsidy hence reduced participation rates in secondary education (OECD, 2012). The subsidy is at three echelons: the federal local, and state governments. Local authorities funding of education varies depending on regions due to disparities in the economies of states similarly, investment in education within the same state differs. While in Canada school fees are integrated in the education system, the government finds that there are parents not able to afford school fees. This inability makes the government to intervene in the provision subsidy education ensuring no child gets denied access to education (Khamati & Nyongesa, 2013). In the UK, conditional cash transfers paid to 16 to 18-year old was very effective in reducing dropout rates, it increased full time participation rates to 4.5 percent in the first year and 6.7 percent for those receiving two years of education. (Dearden *et al*, 2005).

2.7 Tuition free secondary education and completion rates

The aim of tuition free secondary education policy was to make secondary education affordable and accessible to all those who qualified regardless of socio-economic background and in the long run increase completion rate (Republic of Kenya, 2008). (Mwangi, Cheloti and Obae, 2017) in their study found out that free day secondary education schooling has increased students' retention rate and reduced dropout rates leading high completion rates. Lewin (2008) stipulates that financing of education in secondary school, subsidized secondary schooling in Sub Saharan African has led to high completion rates.

Similarly, his study on financing education in Mauritius explained that subsidized secondary schooling in Sub-Saharan Africa (SSA) led to high completion rates. Free day secondary education fund was used to enhance educational facilities in day secondary schools in Kibwezi district and has provided ideal environment for quality education and hence completion rates (Ngwili, 2014). High enrollment rate was not consistent with completion rates due to inadequate physical facilities which are not developed to meet the increasing demand for secondary education and school funds which are a challenge because parents are still expected to meet educational costs (Kinaro, 2015). Kinaro (2015) made a conclusion that subsidized secondary education fund increased students' completion rates. This agrees with the study by Kamau (2012) who found out that the subsidy was inadequate in acquiring teaching learning resources which help in sustaining student's in school by enhancing learning.

2.8 Summary of review of related literature

Many studies from the reviewed literature have shown that tuition free secondary education subsidy has enhanced students' enrollment and retention in secondary education. However, the studies have shown that the tuition free secondary education subsidy is quite inadequate, and it is not equitably distributed in terms of socio-economic background of the students, school type and regional disparities, furthermore it's always affected by delays in distribution (Mwangie, 2012; Kinaro, 2015 and Ngwili, 2014). It was for these reasons that the researcher sought to find out if there was a significant

influence of the subsidy on participation rates in secondary education in Kasarani Sub County.

2.9 Theoretical framework

The study was based on Human capital theory developed by Schultz in 1971 after he extensively studied economic growth in the USA. Economic growth traditionally was attributed to factors of production such as land, labour and capital. Shultz (1971) argued that the growth in output could only be adequately explained by the investment in human capital that had taken place in form of formal education, on the job training and improved health, mobility and migration of workers so that they can respond to the changing job opportunities. The theory further emphasizes that governments and individuals should invest in education for future gain in form of economic development.

The theory is very important as a basis to this study since it explains why governments, communities and individuals invest highly in education. Adequate investment in education is realized through high enrollment, low dropouts, equity in accessing educational resources and high retention rates. Subsidized secondary education is one of the ways Kenya government has adopted as a measure that assist in developing the human capital through secondary education. Investing in secondary education leads to increased students' participation rates and reduced inequalities which in return bring about highly qualified human capital for increased productivity.

2.10 Conceptual Framework

A conceptual framework is a graphical or diagrammatical representation of interrelationship between variables in a study (Figure 2.1).
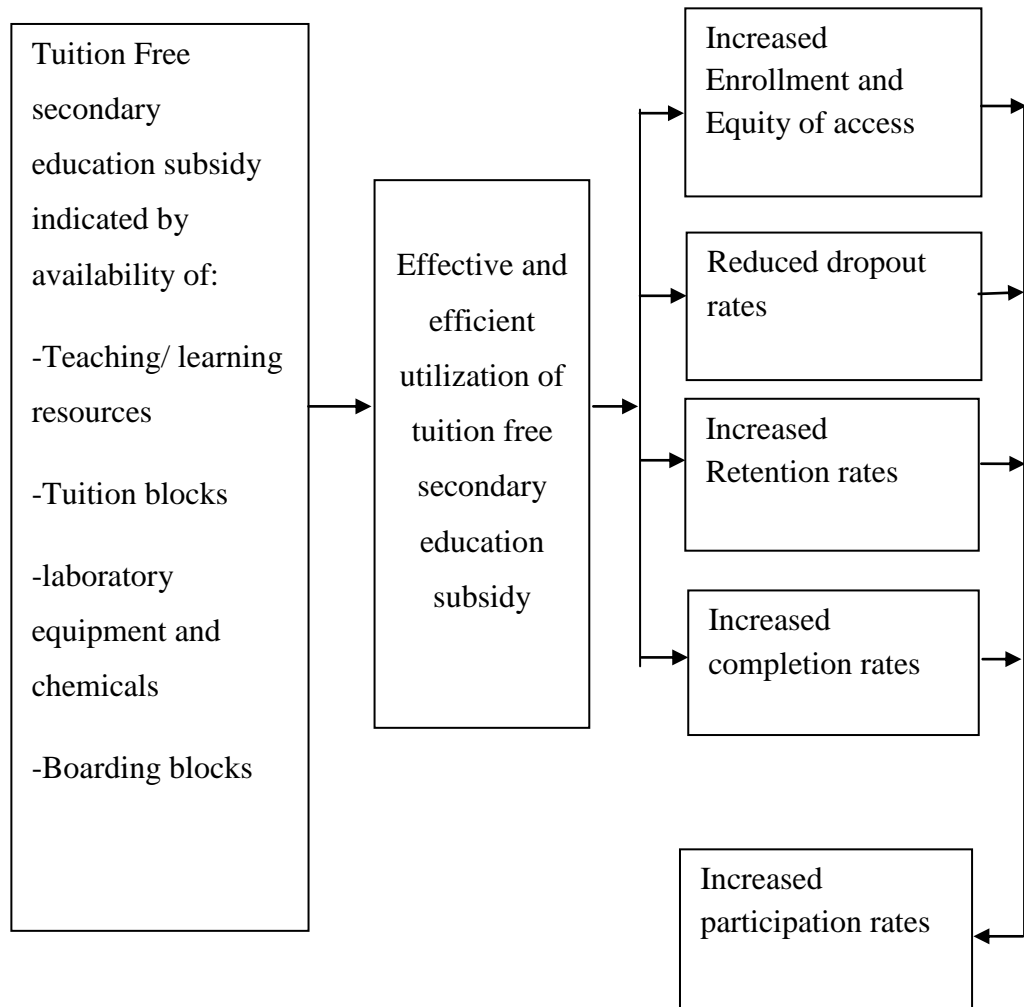
Figure 0.1: Framework of tuition free secondary education subsidy and student's participation rates

Tuition free secondary education subsidy as government contribution towards secondary education is the independent variable while participation rate is the dependent variable. Tuition free secondary education subsidy is used to acquire teaching/learning resources including textbooks, laboratory equipment and

chemicals, tuition blocks and teaching/learning Aids. Effective utilization of the subsidy will lead to increased participation rates in terms of enrollment, equity in enrollment, retention rates and completion rates.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents research design, target population, sample size and sample technique, description of research instruments, piloting of the instruments, validity of the instruments, reliability of the instrument, data collection procedure, data analysis technique and ethical consideration

3.2 Research design

A research design is a plan, structure and strategy of investigation to obtain answers to research questions and control variance (Ogula, 2005).

The study adopted descriptive survey design a method. This method looks at individuals, groups, institutions, methods and materials which may be used for comparison, and classification, analysis and interpretation of the data (Cohen *et al.*, 2007). Descriptive survey design enables the researcher to collect description of existing phenomenon with intention to justify current conditions. The research was aimed at finding out the factors as viewed by different people; it was concerned with gathering facts and figures and not manipulation of variables (Orodho, 2009). This design was suitable for this study due to its ability to elicit a wide range of baseline information about the relationship between tuition free secondary education subsidy and students 'enrollment rates, equity, retention rates and adequacy of teaching/ learning materials in secondary schools in Kasarani Sub County.

3.3 Target population

Target population is the population to which the researcher wants to generalize the results of the study. The target respondents were the Principals, class teachers and form three students from schools in Kasarani Sub County, Nairobi County. The study targeted all the 18 schools in the Sub County, 18 principals from the schools, twenty-six class teachers and one thousand one hundred and thirty-eight form three students.

3.4 Sample size and sampling procedure

Sampling entails a research technique involving selecting a specified number of subjects from a target population as representatives of the target population. There are eighteen secondary schools in Kasarani Sub County twelve of which are public schools, two are girl's only boarding secondary schools. Ten are mixed public secondary school and were purposively selected for this study. Ten Principals from the schools and twenty-six class teachers were also purposively selected for the study from the Sub County. The sample size of 30 percent of the students' population as stipulated by Gay and Diehl's, (1992) that the sample size of 20% used for selecting the students.

According to Kothari (2004), the margin of error should be between 1 and 5 and a confidence level of 95%. To select students stratified sampling was used enabling separation of boys and girls based on gender. Out of 1138 students from form 3 targeted for the study, 700 were boys while 438 were girls. The sample therefore included 210 boys and 131 girls. Simple random sampling was then done in each school visited. Students in each class were randomly

selected by use of ballot technique giving every respondent equal chance to be selected. This type of sampling technique allows the respondent to handpick the participants because they have the required information (Kothari 2004).

3.5 Research instruments for data collection

Questionnaires were used to gather information from the teachers and students while interview schedule was used to collect data from the Principals. Questionnaires are preferred for this study because they can be developed to address a specific objective, easy to administer and convenient in collecting information within a short time. Interview schedules are preferred because they give more information about the school and information gathered will enhance that given by the teachers. Descriptive data from the teachers and students was gathered using questionnaires. The interview schedule had structured and closed questions which helped gather more information from the Principals and collect quantitative data. Questionnaires contained both open and closed ended items. The closed items were used to address the respondent's demographic information including enrollment and retention while open ended contained items intended to seek respondents' opinions on tuition free secondary education subsidy and students' participation.

3.6 Piloting

Piloting of the instruments was done in one school which did not participate in the study. The instruments were administered in the same school two times in a period difference of two weeks. This was done to ascertain the reliability of the

instruments in order to make necessary adjustments. Piloting was very useful in checking the length of the instruments and clarity of the instructions.

3.7 Validity of the instruments

 Content validity were undertaken to ascertain whether the content to the questionnaires were appropriate and relevant to the study purpose as stipulated by Orodho, (2005).   The contents of the instrument were evaluated independently by the experts in the field of study who are my two supervisors.

3.8 Reliability of the research instruments

Reliability measures the degree to which a research instrument yields consistent results or data after repeated trials (Mugenda and Mugenda, 2003). Test-re-test method was used to test reliability of the instruments. The instruments were administered in one school which was not included in this study. This was done in a time difference of two weeks. Computation of the reliability coefficient was done using Pearson-product moment for the correlation coefficient (r).

$$r = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{[N\sum X^2 - (\sum X)^2][N\sum Y^2 - (\sum Y)^2]}}$$

Where n = the number of pairs of scores,

$\sum Y$ = sum of y scores

$\sum XY$ = sum of the products of paired scores,

$\sum X^2$ = sum of squared x scores,

$\sum X$ = sum of x scores

$\sum Y^2$ = sum of square y scores

A correlation coefficient of 0.74, 0.78, and 0.71 was obtained from the questionnaire for principals, teachers and students respectively, which showed that the instruments were highly reliable. According to Mugenda and Mugenda, (2003), an instrument that gives a correlation coefficient of >0.7 shows a high reliability and sustainability of research instrument. This same measure was used in this study because it implied a high degree of reliability of the data and thus sustainability of the research instruments.

3.9 Data collection procedure

The researcher obtained an introduction letter from the University of Nairobi which was used to seek a research permit from the National Commission for Science and Technology and innovation (NACOSTI). Thereafter permission was sought from the Kasarani Sub County education officer to collect data in the schools. The researcher visited the schools and introduced herself to the Principals and booked appointment for data collection. The researcher finally proceeded to collect data on the appointment dates from the schools.

3.10 Data analysis techniques

The data collected was first edited and coded to remove ambiguities, irrelevancies and check on omissions. Edited data was then entered in excel spreadsheets and analyzed using Statistical Package for Social Science (SPSS) version 25 software. This involved arranging the collected data from the study

in groups or classed based on common characteristics (Orodho, 2009). The responses from the questionnaires and interview schedule were systematically organized in line with the objectives to facilitate analysis. The Data was converted to numerical codes representing attributes of measured variables by coding process using SPSS statistical software (Kothari, 2004) and analyzed using descriptive statistics. Quantitative data generated which included enrollment, retention, dropout and demographic information were tabulated and analyzed by use of frequency distribution and percentages, and presented in frequency tables and bar graphs.

3.11 Ethical considerations

The researcher obtained consent from all the respondents. Given the nature of the research anonymity was observed as some people may not want their names and age to be recorded. The researcher observed extreme confidentiality while handling the responses. Information was availed to the respondents that the researcher would not cause any danger directly or indirectly and that participation would be voluntary. The respondents who accepted to participate in the study were assured of confidentiality and that the responses were only to be used for the study.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Introduction

This chapter presents the data analysis, interpretation and discussion of the findings from data collected by use of questionnaires that were administered to the students and teachers and interview schedules administered to the principals. Explanations and interpretation of the findings were done based on the objectives of the study. Presentation of the findings was done using frequency tables and graphs.

4.2 Instruments return rate

The study sought to investigate the influence of tuition free secondary education on participation rates of the students in Kasarani Sub County. The profile of the respondents is captured in this section. The study sampled ten principals, 20 teachers and 276 students. The principals were interviewed while teachers and students were served with questionnaires. Table 4.1 presents the instrument response rate realized in the study.

Table 0.1: Instruments return rate

Category	Number Sampled	Number returned	Percentage Response rate
Principals	10	7	70
teachers	20	11	60
Students	276	241	87.3
Total	**306**	**259**	**74.4**

From table 4.1, majority (241) of the respondents were students (87.3%), eleven (11) teacher respondents were 60 percent filled the questionnaires while Seven principals (7) were interviewed, made up 70 percent, giving a total response rate of 74.4 percent of the total sampled. According to Mugenda and Mugenda (2003) a response rate of 50 percent is adequate for analysis; 60 percent is good and 70 percent and above is excellent. The information is represented in Table 4.1.

4.3 Demographic characteristics

The gender of all the respondents were taken and recorded in Table 4.2.

Table 0.2: Gender of the respondents

Gender	Principals		Teachers		Students	
	Frequency	**%**	**Frequency**	**%**	**Frequency**	**%**
Male	1	14.3	4	36.4	150	62.2
Female	6	85.7	7	63.6	91	37.8
Total	**7**	**100**	**11**	**100**	**241**	**100**

Table 4.2 shows that 85.7 percent of the principals were females, while 63.6% of the teachers were females. The highest percentage (62.2%) of students' respondents were males. This shows that most secondary schools in Kasarani Sub County were dominated by male students, though the study used both genders across all respondents to ensure gender parity in the study findings.

4.4 Effects of tuition free secondary education subsidy on equity in students' enrollment rates

The first objective of the study was to determine the extent to which tuition free educational subsidy affected equity in students' enrollment. Equity in this context is considered in terms of gender and economic background of the students. To assess the effect of tuition free secondary on enrollment rates, the researcher sought to find out from the form three students the classes they enrolled when they joined the schools (Table 4.3).

Table 0.3: Students enrollment rates

Class joined	No. Students (n)	%
Form one	134	55.6
Form two	29	12.0
Form three	78	32.4
Total	**241**	**100.0**

The information in Table 4.3 shows the total number of students' respondents as 241 out of which 134, 29 and 78 enrolled in form 1, 2 and 3 respectively. The highest enrollment was in form one with a total of 134 students giving 55.6 percent of the total respondents. During the interview with the principals, it was revealed that, students who enrolled in form two and three were mainly transfered from other schools as well as new enrollments due to availability of tuition free education. They further revealed that other students enrolled in the schools either because of accessibility and distance from homes or because parents were unable to take them to boarding schools due to lack of fees. Other students chose to enroll in the schools due to good educational facilities and

infrastructure. Effective and efficient use of educational subsidies in acquiring teaching and learning resources for the schools gave confidence to the parents to enroll their children in these schools. These findings are in line with those by Mwangie (2012) who noted that free day tuition increased enrollment rates. This is an indication that many students were able to access secondary education due to availability of the educational subsidy.

4.4.1 Effects of TFS on enrollment of students from low socio-economic backgrounds

To assess the effect of tuition free subsidy on equity in students' enrollment, teachers were asked to indicate how the subsidy had affected enrollment rates of students from low socio-economic backgrounds and the results were represented in Table 4.4.

Table 4.4: Teachers' response on the effects of TFS on enrollment of students from low socio-economic backgrounds

Responses	Frequency	%
Moderate extent	1	9.1
Great extent	7	63.6
Very great extent	3	27.3
Total	**11**	**100.0**

From Table 4.4, from the combined responses at great extent and very great extent (90%) of the respondents showed that the subsidy was very effective in increasing the enrollment rates of students from financially challenged backgrounds. The results of this study agree with the findings by Aroni (2013)

who found out that subsidized secondary education increased enrollment rates and enabled poor parents to take their children to schools.

Table 4.5: Principals' response on the effects of TFS on enrollment of students from low socio-economic backgrounds

Responses	Frequency	%
Great extent	5	71.4
Very great extent	2	28.6
Total	**7**	**100.0**

From Table 4.5, from the combined responses at great extent and very great extent, a hundred (100%) percent of the respondents showed that the subsidy increased the enrollment rates of students from financially challenged backgrounds hence ensuring equity in accessing secondary education. Students from low socio-economic backgrounds are able to enroll in secondary education due to the presence of educational subsidy. The high enrollment rate of students from low socio-economic backgrounds is an indication that the tuition free subsidy is very effective in attracting many students to pursue secondary education. This was the goal by the Ministry of Education to increasing accessibility as was proposed in Sessional Paper no. 14 (2012). It is worth noting that the location of the schools under study are within the catchment of low- and middle-income earners hence accessible to the students from these backgrounds. The study by Koriyow (2017) gave contrary results in comparison to those obtained by this study. In his study Koriyow who observed that low enrollment rates in Wajir county even after the introduction

of the subsidy. This could be attributed to the nomadic way of life for the people of Wajir County.

4.4.2 Effects of TFS on gender and enrollment

Teachers and principals were asked the gender that benefited most from the tuition free subsidy and the results presented in Table 4.6.

Table 4.6: Teachers responses on the gender of student that benefitted most from tuition free subsidy

Response	Frequency	%
Boys	3	27.3
Girls	1	9.1
Both	7	63.6
Total	**11**	**100.0**

From table 4-3, tuition free subsidy benefited both boys and girls according to (60%) of teachers indicated that both boy and girl child benefited from the tuition free subsidy. This implies that tuition free subsidy is not gender biased. These study findings concurred with the directive from the Ministry of education through the Education Act of 1958 that stipulated that enrolment of students was increased to 88 percent after the introduction of government subsidy in the year 2003. The findings are also in consistence with the report by UNESCO (2013) that revealed that government intervention in increasing subsidy access translated to increased students enrolment in Kenyan secondary schools. The principals were requested to indicate whether tuition free subsidy influence the gender of students enrolling in their school. Table 4.7 presents the study findings.

Table 4.7: Principals responses on the gender of student that benefitted most from tuition free subsidy

Response	Frequency	%
Boys	2	28.6
Girls	1	14.3
Both	4	57.1
Total	**7**	**100.0**

From Table 4.7, majority of the principals (57.1%) reported that the subsidy benefited both the boy and the girl child equally. The few cases of girl child benefiting was attributed to the concern by parents who tend to enroll the girls in boarding schools as opposed to the boys due to security reasons. This is an indication that TFS was very effective in reducing inequalities both in terms of gender and socio–economic backgrounds of the students. The study findings concur with MOEST, (2015) that reports that the fund is equally distributed to each student irrespective of whether in a Boarding or Day secondary school, from poor or rich background or from ASAL or non ASAL regions for financing of secondary education. the findings were also inline with Asankha and Takashi, (2011) in their statement that the introduction of Universal secondary school policy in Uganda led to increased enrollment of girls and especially the ones from poor backgrounds boosting gender equity in participation in education.

4.5 Effects of tuition free secondary education subsidy on students' dropout rates

The second objective sought to determine the extent to which tuition free educational subsidy affected dropout rates. The students were asked to indicate

the extent to which TFS affected dropout rates and the response shown in table 4.8.

Table 0.8: Students' rating on the effect of TFS on dropout rates

Respons	Frequency	%
No extent	61	25.1
Little extent	66	27.3
Moderate extent	106	44.1
Very great extent	8	3.5
Total	**241**	**100.0**

From Table 4.8, the combined response rates on moderate and very great extent, 47.6 percent of the students' respondents said TFS reduced dropout rates, while 27.3 percent of them said that tuition free subsidy affected dropout rates to a little extent. Whereas, 25.1 percent of the respondents said that the subsidy had no effect on dropout rates. Apart from tuition free secondary educational subsidy which was done in this study, students' respondents also noted that there were other factors which could contribute to student's dropout and these include early pregnancies, substance, death of a parent and drug abuse as well as indiscipline. However, Muthoka (2015) in his study, noted a similar trend that there were still students who dropped out of school in Mwingi Sub County despite the availability of tuition free subsidy.

Similarly, the principals and teachers were asked to indicate the extent to which TFS affected dropout rates and the results presented on Tables 4.9 and 4.10.

Table 4.9: Teachers responses on the effects of tuition free subsidy on dropout rate

Responses	Frequency	%
No extent	2	18.2
Little extent	1	9.1
Moderate extent	2	18.2
Great extent	5	45.4
Very great extent	1	9.1
Total	**11**	**100.0**

The findings from Table 4.9 showed that from combined responses on moderate, great and very great extent, sixty (60%) percent of the teachers' respondents said that tuition free subsidy was very effective in reducing dropout rates. The findings were in consistence with UNESCO (2010) indicated that 72 million children who were still missing out of school were mostly Africans and hence urges countries to develop more inclusive approaches of protecting vulnerable population.

Table 4.10: Principals responses on the effects of tuition free subsidy on dropout rates

Responses	Frequency	%
Low effect	1	14.3
Moderate effect	2	28.6
Great effect	4	57.1
Total	**7**	**100.0**

Table 410 depicts similar trends as that said by the teachers' respondents, where 57.1 percent of the principals showed that tuition free subsidy had great effects in reducing the dropout rates.

The results observed on reduced dropout rates may be attributed to the tuition free subsidy paid by the republic of Kenya to all the students in public secondary schools. It should be noted that the amount currently paid as subsidy was previously paid by the parents. When TFS was introduced, the part paid by the parents was reduced hence relieving them of heavy burden of school fees. Similarly, they were required to meet the cost of teaching and learning resources which was taken over by the subsidy, thus relieved them further. This therefore allowed the parents to retain their children in school thus leading to reduced dropout rates.

Prior to introduction of TFS, students would drop out of school due to lack of school fees and look for menial jobs to augment their parents' earnings in order to sustain the livelihoods of their families. Provision of tuition free subsidies therefore, encouraged students to remain in school, as well as motivating those who had dropped out of school due to lack of school fees to resume and continue with their secondary education. These findings agree with those of Nyawada, (2015) who found out that tuition waiver reduced dropout rates since parents could afford to pay the reduced fees.

4.6 Effects of tuition free secondary education subsidy on students' retention rates

The third objective was to assess the effect of tuition free secondary education subsidy on retention rates. Retention rates are determined by reduced number

of repetition and absenteeism. To assess the effects of tuition free subsidy on retention rates, the students were asked whether they had ever been sent home for fees. Sending students' home to collect school fees would affect their lesson attendance since some students may not get the money on time. The results were then presented in Table 4.11.

Table4.11: Students' sent home for fees

Responses	Frequency	%
Sent home for fees	201	83.2
Not sent home for fees	40	16.8
Total	**241**	**100.0**

From Table 4.11, it was revealed that students were sent home for fees as shown by 83.2 percent of the students' respondents. It is a common practice by schools to send students home if they fail to complete payment of school fees on time. This in most cases happens when schools do not have finances to use while waiting for students to pay the fee balances and at times where educational subsidy is not disbursed on time. Sending students home for fees results in them being absent from school hence losing learning time.

On the other hand, students were asked to indicate how their academic performance was affected when they were sent home for fees and the results represented in Table 4.12.

Table 4.12: Effects of being sent home for fees on student academic performance

Responses	Frequency	%
Negatively	182	75.4
No effect	59	24.6
Total	**241**	**100.0**

Table 4.12 shows the effect of being sent home on the students' academic performance. The findings show that when students were sent home for fees, their academic performance was negatively affected as shown by 75.4 percent of the students' respondents. The students reported that those sent home for fees missed classes and when this happened often, they failed to catch up with the school syllabus leading to a significant effect on their academic performance. On extreme cases, some students may end up giving up and discontinue their studies thus affecting on the retention.

To ascertain further the effect of tuition free subsidy on retention rates, teachers were asked if there were students who repeated classes since they enrolled in form one and the results were shown in Table 4.13.

Table 4.13: Effects of TFS on repetition rates

Repeaters since form one	Frequency	%
Yes	5	45.4
No	7	63.6
Total	**11**	**100.0**

Table 4.13 shows the effects of tuition free subsidy on students' repetition rates. Majority of the teachers' respondents (60%) reported that there were no repeaters while 40 percent responded that there were students who repeated

classes. It is clear therefore that the subsidy was effective in reducing repetition rates hence increase in retention rates. It is worth noting from teachers' respondents, that the few cases of repetition would arise due to other factors such as indiscipline, conditions at home or death of parent made students to be away from school. Thus, the high retention rates were because of tuition free subsidy.

To find out the extent of the effect of TFS on students' retention rates both students and teachers were asked to indicate the extent to which TFS affected retention rates and the results presented in Tables 4.14 and 4.15.

Table 4.14: Students response on the effects of Tuition Free Subsidy on students' retention rates

Retention rate	Frequency	%
Not effective	33	13.8
Effective	77	31.9
Very effective	56	23.3
Highly effective	75	31.0
Total	**241**	**100.0**

Table 4.14, 31.9 percent, 23.3 percent and 31 percent of students showed that the subsidy was effective, very effective and highly effective respectively in increasing retention rates. Only 13.8 percent reported that the subsidy was not effective in increasing retention rates.

Table 4.15: Teachers response on the effects of Tuition Free Subsidy on students' retention rates

Retention rate	Frequency	%
Great extent	3	27.3
Very great extent	8	72.7
Total	**11**	**100.0**

Information from Table 4.15 shows the teachers' responses on the effects of TFS on students' retention rates and that 30 percent of the respondents showed that the subsidy was effective to a great extent while 70 percent reported that it was effective to a very great extent. This is an indication that majority of the students were able to remain in school for the four-year cycle since the introduction of the TFS hence increased retention rates.

The results revealed that with affordable school fees, many students spend more time in school to study and do revisions therefore excel in their tests and examinations thus promoted to the next form, nevertheless a few would be sent home due to fee balances. Sending home students due to fee balances and extra levies charges would make students lose class time and this would affect syllabus coverage and therefore overall student performance. Nonetheless, the school administration need to create a conducive environment that allows interaction with the students with financial challenges in order to understand their abilities to settle their fees and allow them to continue with studies than being send home. According to Thomas, (2002), while studying student retention in higher education, the role of institutional habitus, observed similar

trends to this study that institutional environment play great roles in student retention in higher education.

It is noted thus; reduced cases of students being sent home for fees and reduced repetition rates increased students' retention rates.

4.7 Effects of tuition free secondary education on completion rates

The study sought from the students to assess the effect of tuition free secondary education subsidy on completion rates and the results were as indicated in Table 4.16.

Table 4.16: Students' rating on the effect of TFS on completion rates

Completion rate	Frequency	%
No extent	32	13.2
Little extent	28	11.5
Moderate extent	52	21.1
Great extent	61	25.1
Very great extent	70	29.1
Total	**241**	**100.0**

From Table 4.16 shows that 29.1, 26.1, 21.1, 11.5 and 13.2 percent of the respondents showed that the subsidy affected completion rates to a very great extent, great extent, moderate extent, little extent and no extent respectively. This is an indication that the subsidy increased student's completion rates.

The study further sought to find out from teachers the extent of completion rates after the introduction of the subsidy and the results shown in Table 4.17.

Table 4.17: Teacher's response on the effects of TFS on completion rates

Completion rate	Frequency	%
Little extent	1	9.1
Great extent	7	63.6
Very great extent	3	27.3
Total	**11**	**100.0**

Information from Table 4.17indicated that 30 percent of the respondents reported that the subsidy affected completion rates to a very great extent while 60 percent said it affected to a great extent.

The study further sought to find out from the principals the extent to which tuition free subsidy has affected student's completion rates. The responses were then represented in Table 4.18.

Table 4.18: Principals' response on the effects of TFS on completion rates

Completion rate	Frequency	%
Moderate extent	2	28.6
Great extent	5	71.4
Total	**7**	**100.0**

From Table 4.18, 71.4 percent of the responses indicated that tuition free subsidy affected completion rates to a great extent while about 29 percent showed that it affected to a moderate extent. From the findings, it was clear that tuition free subsidy was very effective in increasing the students' completion rates.

From the interview with the principals it was revealed that effective utilization of tuition free secondary subsidy as well as other educational subsidies in development and equipping of secondary schools led to increased completion rates. Parents were relieved of meeting all these costs and were encouraged to send their children to school.

These findings are in line with those by Asena *et al*. (2016), who noted a steady rise in completion rates from 70.4 percent in the year 2007 to 72.6 percent in the year 2013. Similarly agree with the findings by Githaka *et al*. (2017) who showed that, with the introduction of educational subsidy, dropout rates reduced, transition and retention increased and hence increased completion rates.

4.8 Challenges related to tuition free subsidy

To establish the extent of the effect of tuition free subsidy, the principals, teachers and students were asked to enumerate the challenges related to tuition free secondary education subsidy and their responses were as follows;

The student's responses were presented in Table 4.19.

Table 4.19: Students' response on the challenges related to tuition free subsidy

Challenges	Frequency	%
Parent's financial challenges	86	35.8
Inadequate teaching & learning resources	48	20.0
Inadequate laboratory and chemicals	50	20.9
Inadequate non & teaching staff	35	14.4
Total	**241**	**100.0**

Table 4.19 shows the students' responses on the challenges related to tuition free subsidy. According to the students, about 36 percent of them said that the main challenge was parents financial inability to meet extra levies. Twenty nine (29%) percent of them reported that there was inadequate teaching and learning resources, while 21 percent said that the subsidy was not enough to meet the cost of putting up more laboratories and purchase of laboratory chemicals. On the other hand 14 percent said there was inadequate teaching and non teaching staff.

The teacher's responses were presented in Table 4.20.

Table 4.20: Teachers' response on the challenges related to tuition free subsidy

Challenges	Frequency	%
Late disbursement of subsidy	5	38.9
Over enrolment	4	27.8
Parents inability to pay other levies	3	22.2
Subsidy exclude other levies	2	6.6
Inadequate staff	1	5.6
Total	**11**	**100.0**

Table 4.20 shows the teachers' responses on the challenges associated to tuition free subsidy. The major challenge affecting tuition free subsidy as observed by 39 percent of the teachers' respondets was late disbursement of the subsidy. Twenty eight (28%) percent of them reported that there over enrollment due to the subsidy, while twenty two (22%) percent reported that parents were unable to meet the extra levies. Other challenges as reported by less than six perscent (6%) of the teachers included exclusion of extra levies by subsidy and inadequate staff.

The principals' responses on the challenges associated with tuition free subsidy were presented on Table 4.21.

Table 4.21: Principals' response on the challenges related to tuition free subsidy

Challenges	Frequency	%
Parents inability to pay other levies	4	31.3
Late disbursement of subsidy	3	26.0
Over enrolment	2	18.8
Inadequate teaching staff	2	18.8
Less funds disbursed	1	6.3
Total	**7**	**100.0**

Information on Table 4.21 showed that 31.3 percent of the principals reported parent's inability to pay for other school levies, 25.0 percent gave late disbursement of the subsidy, 18.8 percent reported over enrollment, 18.8 percent showed inadequate teaching staff and 6.3 percent reported that sometimes less funds are disbursed as major challenges associated to tuition free subsidy.

The levies met by parents include payment for uniforms and lunch programs and these are not covered by the tuition free subsidy but have great effects on school attendance by students. For instance, schools do not allow students to attend classes without proper school attire. Whilst, lunch program allows the students to have lunch and to remain in school until the end of day's lessons. Non-payment of these levies by some parents would have their children not allowed to attend classes in the school.

The introduction of tuition free subsidy resulted in more students joining secondary school leading to over enrollment. The effects of over enrollment resulted in overstretched use of learning facilities and shortage of teaching and non-teaching staff. The school's solutions to the shortage of teaching staff is by employing them under Board of Management (BOM) through collection of extra levies. The inability of parents to pay the extra levies would result in challenges affecting the students' academic performance due to lack of teaching staff and overstretched learning facilities. These findings are in line with those by Mwangi, (2012) who also found inadequate funding, delayed disbursment and over enrollment as the challenges related to educational subsidies.

CHAPTER FIVE
SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary of major findings, conclusion and recommendations as well as implication of the study and areas for further study.

5.2 Summary of the study

The purpose of study was to investigate the influence of tuition free secondary educational subsidy on students' participation rates in secondary schools in Kasarani Sub County, Nairobi County, Kenya. The study aimed at achieving the following objectives; to determine the effect of tuition free secondary education subsidy on equity in students' enrollment in public secondary education, to establish the effects of tuition free secondary education subsidy on students' dropout rates in public secondary schools, to assess the effects of tuition free secondary education subsidy on students' retention rates in public secondary schools, and to determine the effect of tuition free secondary education on completion rates in public secondary education. The study was based on Human capital theory developed by Schultz in 1971. The study adopted descriptive survey design a method. This method looks at individuals, groups, institutions, methods and materials which may be used for comparison, and classification, analysis and interpretation of the data. The study targeted all the 18 schools in the Sub County, 18 principals from the schools, twenty-six class teachers and one thousand one hundred and thirty-eight form three

students. Ten are mixed public secondary school and were purposively selected for this study. Ten Principals from the schools and twenty-six class teachers were also purposively selected for the study from the Sub County. The sample size of 30 percent of the students' population Out of 1138 students from form 3 targeted for the study, 700 were boys while 438 were girls. The sample therefore included 210 boys and 131 girls. Simple random sampling was then done in each school visited. Questionnaires were used to gather information from the teachers and students while interview schedule was used to collect data from the Principals. Piloting of the instruments was done in one school which did not participate in the study. Content validity were undertaken to ascertain whether the content to the questionnaires. The researcher visited the schools and introduced herself to the Principals and booked appointment for data collection. A correlation coefficient of 0.74, 0.78, and 0.71 was obtained from the questionnaire for principals, teachers and students respectively, which showed that the instruments were highly reliable. Collected date were analyzed both qualitatively and quantitatively and results presented in frequency distribution tables and interpreted to answer on the study objective.

5.3 Summary of the findings

The following summary was made in relation to the objectives and the findings of the study.

5.3.1 Effect of tuition free secondary education subsidy on equity in enrollment

The findings of the study showed that the subsidy was effective in increasing enrollment rates. It had effectively improved access by students from low socio-economic backgrounds as supported by 90 percent of teachers and 100 percent of the principals. It was also found out from the 90 percent of teachers and 57.1 percent of the principals that the tuition free subsidy benefited both boys and girls in the same way. Due to availability of tuition free subsidy, schools experienced high enrollment rates that led to congestion due to large class sizes, inadequate teaching and learning resources such as laboratories equipment and chemicals and inadequate teaching and non-teaching staff.

5.3.2 Effect of tuition free secondary education subsidy on dropout rates

The findings further noted a reduction in dropout rates as a result after the introduction of tuition free secondary education subsidy. It was found out from the 47.2, 60, 57.1 percent of students', teachers', principals' respondents respectively that the subsidy was effective in reducing dropout rates. The respondents attributed reduced dropout rates to availability of tuition free subsidy which encouraged students to remain in school and motivated those who had dropped to resume their studies.

5.3.3 Effect of tuition free secondary education subsidy on retention rates

The third objective aimed at determining the effect of tuition free subsidy on retention rates. Majority (85%) of students' and 70 percent of teachers' respondents reported that the subsidy was very effective in increasing retention

rates of students in schools. It was however noted from 83.2 percent of students' respondents that some students are still being sent home for fees. Majority (76.4 %) of student respondents, said that whenever they went home for fees their academic performance was negatively affected. It was noted from the interview with the principals that the few cases of repetition would also arise because of other factors such as indiscipline, conditions at home or death of parent. Delay in remission of the subsidy also affected retention rates since students had to be sent home for fees as the subsidy was being awaited. This was an indication that the subsidy was still not fully effective in meeting all the financial needs of the students.

5.3.4 Effect of tuition free secondary education subsidy on completion rates

The fourth objective aimed at establishing the effect of tuition free subsidy on completion rates. Majority 54.2, 90, and 71.4% of the students', teachers and principals' respondents showed that the subsidy was very effective in increasing completion rates. Provision of tuition free secondary education enhanced enrollment rates, reduced dropout and hence increased completion rates.

5.4 Conclusion

The study made the following conclusions;

i.   Effective and efficient utilization of tuition free subsidy led to increased equity in enrolment rates of students in secondary education. The initiative benefited both the boy and the girl child in the same way. It

was also very effective in increasing enrollment of students from low socio-economic backgrounds.

ii. The dropout rates reduced greatly after introduction of tuition free secondary education subsidy. However, a few cases of dropouts were reported to be due to other factors such as early pregnancies, misuse of drugs and malfunctioning families.

iii. Tuition free secondary education subsidy improved retention rates of the students in schools. There were reduced cases of absenteeism and repetition rates, hence enhanced retention rates. It was also noted that other levies such as for lunch program, maintenance of school buses and for school uniform were meant to be met by the parents. Students who were not able to pay these levies were sent home and academic performance of some of them would be affected.

iv. Increased enrollment, reduced dropout, increased retention rates led to increased completion rates. Many students were able to complete secondary education due to reduced levies charged.

v. Despite the increased participation rates, effective and efficient utilization of the subsidy was faced with challenges of late disbursement and inadequate funds.

vi. Despite the increased participation rates, effective and efficient utilization of the subsidy was faced with challenges of late disbursement and inadequate funds.

5.5 Recommendations for the study

The following recommendations were made from the study:

i.   The government should increase the tuition subsidy to include levies for lunch program and school uniform as well as for maintenance of school buses.

ii. To ensure equity in distribution between those with financial challenges and the well to do the government should develop a system through the schools that targets the needy students and create easier ways of channeling the bursaries to them.

iii. The subsidy should be remitted to schools on time to reduce cases of wastage through students' absenteeism, repetitions and dropouts and improve participation rates in secondary education.

iv. A vote head for paying teachers employed through the board of management should be created and included in the subsidy.

5.6 Suggestions for further research

i.   This study focused on the schools in Kasarani Sub County, it's therefore suggested that the study be replicated in various other counties in the country in order to come up with a wider view of the problem.

ii. Study should also be carried out on the effect of educational financing on internal efficiency in secondary schools after introduction of tuition free secondary education subsidy.

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APPENDICES

Appendix 1: Letter of introduction

Juliana Chepkoech Lelei

P.O. Box 6847-00200,

Nairobi.

The Principal,

Dear Sir/Madam,

RE: INTRODUCTION LETTER

I am a post graduate student from the University of Nairobi, department of education, Administration and Planning. I am undertaking a research on "**Influence of tuition free secondary educational subsidy on student's participation in Kasarani Sub County Nairobi County Kenya.**" Your institution has been selected to participate in the study.

The attached questionnaires have been designed to assist the researcher gather data for the research only. Respondents will not be required to write their name or the name of the institution. You are well thought, and honest responses are highly valued. The information received will only be used for the purpose of the study.

Thanking you in advance,

Yours faithfully,

Juliana C. Lelei

Appendix 2: Interview schedule for the Principal

You have been selected to participate in this study that investigates the influence of tuition free secondary education subsidy on students' participation in secondary schools in Kasarani Sub County.

Section one: students' enrollment and equity.

1. What are the factors affecting enrolment rates of students in your school?

2. To what extend has tuition free secondary education subsidy affected enrolment rates of students in your school?

3. Who has benefited more from subsidy between the boy child and the girl child in your school?

4. To what extend has the subsidy affected the enrolment of the students from poor backgrounds as well as those from financially stable backgrounds?

Section II: Tuition free secondary education subsidy and dropout

5. What are the factors contributing to students' dropout in your school?

6. To what extend has the subsidy affected dropout rates in your school?

7. How has been the trend of students' dropout rates in your school before and after subsidy?

Section III: Tuition free secondary education subsidy and retention rates.

8. What are the factors affecting retention of students in your school?

9. To what extend has tuition free secondary education affected retention of students in your school?

10. How has tuition free secondary education subsidy affected retention of students in your school?

Section IV: Tuition free secondary education and completion rates.

11. What are the factors affecting completion rates of students in your school?

12. To what extend has tuition free subsidy affected completion rates of students in your school?

Section V: Tuition free secondary education subsidy

13. What are the indicators of the effects of tuition free secondary education subsidy in your school?

14. What are the challenges associated with administration of tuition free secondary education subsidy?

15. What other information do you have regarding tuition free secondary education subsidy?

Thank you very much for your contribution. God Bless You.

Appendix 3: Questionnaire for class teachers

You have been selected to participate in this study that investigates the influence of tuition free secondary education subsidy on students' participation rates in secondary schools in Kasarani Sub- County.

Section I: Tuition free secondary education on equity in enrollment

1. What is the current number of students in your class?

Boys ………………………. Girls……………………….

2. How many students from your current class were enrolled in form 1?

Boys…………………………. Girls………………………….

3. How many students have joined your class since form 1?

Repeaters………… From other schools………...

Others (specify ………….

4. What are the factors affecting enrolment of students in your school?

5. Are there students in your school who are sent home due to lack of school

Fees? Yes ( ) No ( )

a) If yes, which gender is most affected? Boys ( ) Girls ( ) both ( )

b) If no, how are those unable to pay school fees sustained in school?

6. To what extend has tuition free subsidy affected enrolment of students from poor backgrounds?

Section II: Tuition free secondary education subsidy and dropout rates

7. How many students have dropped out of school from your class since they enrolled in form one?
Boys …………… Girls ……………

8. What factors contributed to the dropout in (7) above? (Tick)
(i) School fees (ii) Indiscipline (iii) Pregnancy
(iv) Drug abuse (v) Sickness (vi) Others (specify)

9. To what extend has tuition free secondary education subsidy affected dropout rates in your class?

No extend	Little extend	Moderate extend	Great extend	Very great

Section III: Tuition free secondary education subsidy and retention rates

10. Are there students who have repeated any class since form 1 from your class? (i) Yes ( )   (ii) No ( )

        a) If yes, what factors contributed to their repetition?

        b) If no, what factors have contributed to their retention to this level?

11. To what extend has the tuition free subsidy contributed to retention of the students in your class?

No extend	Little extend	Moderate extend	Great extend	Very great

Section IV: Tuition free secondary education subsidy and students' completion rates

12. What are the factors that affect students' completion rates in your school?

13. To what extend has tuition free secondary education contributed to students' completion rates in your school before and after the subsidy? Tick

	No extend	Little extend	Moderate extend	Larger extend	Very large extend
Before the subsidy					
After the subsidy					

Section V: Tuition free secondary education subsidy

14. What are the challenges associated with tuition free secondary education subsidy in your class?

……………………………………………………………………………………

15. How can the challenges in (14) above be managed?

……………………………………………………………………………………

Thank you very much for your cooperation.

Appendix 4: Questionnaire for students

Please fill the spaces provided or put a tick in the brackets where necessary.

Section I: Tuition free secondary education on equity in enrollment

1. Please state your gender   Boy ( )   Girl ( )

2. In which class, did you join this school?

        Form   (1)   (2)   (3)   (4)

3. What factors influenced your enrollment in the school?

Section II: Tuition free secondary education subsidy and dropout rates

4. What extend has tuition free subsidy affected the dropout rates of students in your school?

No extend	Little extend	Moderate extend	Great extend	Very great

5. What factors contribute to students drop out in your school?

   (i) Lack of School fees ( )   (ii) Pregnancies ( )   (iii) Indiscipline ( )

   (iv)   Transfer ( )   others ( ) specify…………………………

Section III: Tuition free secondary education subsidy and retention rates

6. Have you ever been sent home because of school fees? Yes ( ) No ( )

a) If your answer is yes, how has it affected your academic performance? (i) Negatively ( )   (ii) No effect ( )   Others (specify)

……………………………………………………………………….

b) If No, how has your school fees been financed

   i) By parent

   ii) Sponsor

   iii) Bursary

   iv) Free education

   v) Others (specify)

7. How do you rate the contribution of tuition free secondary education subsidy to retention of students in your school?

   (1) Very good   (2) good   (3) fair   (4) poor

Section IV: Tuition free secondary education subsidy and completion rates

8. To what extend has tuition free subsidy affected completion rates of students in your school?

No extend	Little extend	Moderate extend	Great extend	Very great

Section V: Tuition free secondary education subsidy

9. What other levies do you make to the school?

10. What are the challenges associated with tuition free secondary education subsidy? (Tick all that apply)

i)   Inadequate teaching learning staff

ii)   Inadequate teaching learning resources

iii)   Inadequate laboratories and chemicals

iv)   Lack of lack of finances to meet extra levies such as lunch and uniforms

v)   Parent's financial challenges

11. Suggest ways in which the challenges may be managed.

__Thank you for your time and God bless you.__

Appendix 5: Research permit

THIS IS TO CERTIFY THAT:
MS. JULIANA CHEPKOECH LELEI
of UNIVERSITY OF NAIROBI, 6847-200
Nairobi,has been permitted to conduct
research in *Nairobi County*

on the topic: *INFLUENCE OF TUITION
FREE SECONDARY EDUCATIONAL
SUBSIDY ON STUDENTS' PARTICIPATION
RATES IN PUBLIC SECONDARY SCHOOLS
IN KASARANI, NAIROBI COUNTY, KENYA*

for the period ending:
9th April,2019

....
**Applicant's
Signature**

Permit No : NACOSTI/P/18/37319/22162
Date Of Issue : 10th April,2018
Fee Recieved :Ksh 1000

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

Appendix 6: Research authorization

NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION

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

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

Ref: No. **NACOSTI/P/18/37319/22162**

Date: **10th April, 2018**

Juliana Chepkoech Lelei
University of Nairobi
P.O. Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *"Influence of tuition free secondary educational subsidy on students' participation rates in public secondary schools in Kasarani, Nairobi County, Kenya,"* I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending **9th April, 2019.**

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

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

DR. STEPHEN K. KIBIRU, PhD.
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Nairobi County.

The County Director of Education
Nairobi County.