RESEARCH ARTICLE

IMPACT OF FREE SECONDARY EDUCATION POLICY ON RETENTION RATES IN PUBLIC SECONDARY SCHOOLS IN KENYA: A CASE STUDY OF EMUHAYA AND VIHIGA SUB COUNTIES.

Joash Mark Asitiba Olenja, *Enose M.W. Simatwa and Maurice A. Ndolo

Department of Education Policy and Management, Tom Mboya University College, Kenya

ABSTRACT

Globally countries have invested huge amounts of money in education. In Kenya Free Secondary Education (FSE) policy was introduced in 2008 to improve retention rates. In Emuhaya and Vihiga sub counties retention rates from 2008 to 2012 were 53.1%, 55.8%, 53%, 56% and 55.4% respectively for Emuhaya sub county; and 54.6%, 58.3%, 56.5%, 57% and 55% for Vihiga sub county which were lower than national retention rates of 84.1%, 86.2%, 87.4%, 88% and 88.3% for the same period. The objective of the study was to determine the impact of Free Secondary Education policy on retention rates in Emuhaya and Vihiga sub counties. A conceptual framework based on investment choices by Psacharopoulos and Woodhall (1985) was adopted with FSE policy being the independent variable and retention rates as the dependent variable. The study revealed that there was a moderate and positive relationship between Free Secondary Education policy and retention rates with coefficient of 0.613 which was significant at a p-value of 0.05. It accounted for 37.3% of the variation in retention rates. The study concluded that Free Secondary Education policy enhanced retention rates and improved internal efficiency of public secondary schools in Emuhaya and Vihiga Sub Counties. The study recommended that FSE funds be reviewed further upwards and be disbursed on time to schools in order to increase retention rates. The findings of this study are useful to stakeholders in education as it informs them on the need to review further upwards the policy so as to achieve its objectives fully.

Citation: *Joash Mark Asitiba Olenja, Enose M.W. Simatwa and Maurice A. Ndolo.* **2020.** "Impact of Free Secondary Education Policy on Retention Rates in Public Secondary Schools in Kenya: A Case Study of Emuhaya and Vihiga Sub Counties.", *International Journal of Current Research*, 12, (07), 12722-12740.

INTRODUCTION

In 1948 the United Nations Declaration of Human rights proclaimed that education was a fundamental human right. Every person has a claim to basic level of knowledge regardless of his /her social, economic or political status. This document set a stage for the rise of Free Universal Education Policies around the world in subsequent years. Universal education is one of the principal concerns of governments around the world (Steer & Geraldine, 2010). World over education is viewed as the cornerstone of social, economic and political development, a key means of improving an individual's socioeconomic status (UNESCO, 2010). Education empowers an individual with specific skills required by a firm, project or field of demand. It is believed that the main mechanism for developing human skills and knowledge is education (World Bank, 2008).

Corresponding author: **Enose M.W. Simatwa,**
Department of Education Policy and Management, Tom Mboya University College, Kenya.

After decolonization, education moved to the top of nation's post-independence development agenda. Many governments in developing countries allocated much of their resources to education after independence as a means of eradicating poverty, for future development and catalyst for social economic and industrial development (Psacharopoulos & Woodhall, 1985). According to UNICEF (2001) investment in education is widely recognized as an important element in a given country's development strategy. This is supported by world summit declaration on Education For All which is a global movement led by the United Nations Education Scientific and Cultural Organization which aimed at meeting the learning needs of all children, youths and adults by 2015 (World Bank, 2000). According to Universal Declaration of Human Rights Article 28 of 1979, education should be free at least at the elementary level and accessible to all on basis of merit at higher levels. In order to realize these aspirations, the United Nations introduced the Education for All as an international initiative first launched in Jomtien, Thailand in 1990 to bring the benefits of education to every citizen in every society (Education for All Global monitoring Report UNESCO, 2009).

United Nations Human and Regional Organization (2012) point out that education is both a human right in itself and an indispensable means of realizing other human rights. World Bank (2011) states that some countries are now declaring free universal secondary education. In this respect countries like Angola, Benin, Botswana, Uganda and several other Sub-Saharan Africa countries have introduced Free Secondary Education policy to be in line with Education for All goals and Sustainable Development Goals. With the declaration of Free Primary Education policy in January 2003, the government of Kenya accelerated its speed to meet one of the goals of the Education for All of free and compulsory primary Education affirmed at Jomtien, Thailand (1990) and Dakar, Senegal (2000). The world summit for children (1990) and the world summit of population and development (Cairo Summit, 1999) recognized basic education as a human right and a means of social, economic and political development. The Education for All framework for action in sub-Saharan Africa; Education for African Renaissance in the 21st Century the Johannesburg declaration for African based on the ideology of African Renaissance. The emphasis is on the fact that education in Africa shall prepare African people to take control of their own destiny, liberate them from dependence and endow them with initiative, creativity, critical thinking, enterprise, democratic values, pride and appreciation of diversity. Secondary school education was incorporated as part of basic education in 2008 by the Kenya government and tuition free secondary Education or subsidized secondary education was declared (Republic of Kenya, 2008). Introduction of FSE programme has led to increased enrollment from 2.0 million in 2013 to 2.8 million in 2017. The secondary Gross enrolment rate increased from 54.3% in 2013 to 69% in 2017 while NER increased from 38.5% to 51.1% in same period. This implies that approximately 48.9% of secondary school going age children are not enrolled in secondary schools (Republic of Kenya, 2019a). Accordingly, secondary school education is supposed to enable the children from poor households acquire a quality education that enables them to access opportunities for self-advancement and be productive members of the society.

Secondary education is significantly correlated to economic growth, social development and to realization of Sustainable Development Goals, improvement in Individual earnings, decline in fertility and child mortality and increase in overall health and nutritional levels of a nation (UNESCO, 2014). UNESCO (2014) considered low retention in education sector as also to a nation and that it shows unfulfilled objective for an individual and community. Students who are not retained at secondary level means a great loss of potential workforce to a country. This justifies the higher expenditure on education by many national governments which is estimated to be between 4 to 6 percent their Gross Domestic Product (Martinez & Terway, 2016). Free Secondary Education policy was introduced to improve; retention rates, completion rates, transition from secondary to university and student academic performance (Ministry of Education, 2007). Despite the introduction of Free Secondary Education policy the situation is still wanting. In Emuhaya and Vihiga sub counties retention rates from 2004 to 2007 were 48.1%, 50.6%, 47.5% and 51.1% respectively for Emuhaya, 48.5%, 49.2%, 54.4% and 52.7% respectively for Vihiga which were lower than national retention rates of 78.4%, 81.0%, 79.7% and 82%. Completion rates were 47.1%, 45.7%, 47.4% and 45.8% respectively for Emuhaya, 44.2%, 48.2%, 44.7%, and 40.3% respectively for Vihiga which were lower than national completion rates of 82.4%, 81.7%, 84.2%, and 83.7%. Transition rates were 22.0%, 18.0%, 25.0% and 24.6% respectively for Emuhaya, 17.4%, 21.0%, 23.0% and 19.0% respectively for Vihiga which were lower than national transition rates of 41.1%, 43.0%, 46.2% and 47.1%. Kenya Certitcate of Secondary Education examination performances mean score were 4.3, 4.1, 4.9 and 4.6 respectively for Emuhaya, 4.2, 3.8, 4.4 and 3.9 respectively for Vihiga which are below the average mean score of 6.0 (Kenya National Examination Council, 2007). After the introduction of Free Secondary Education policy, retention rates in Emuhaya and Vihiga Sub Counties from 2008 to 2012 were 53.1%, 55.8%, 53%, 56% and 55.4% respectively for Emuhaya, 54.6%, 58.3%, 56.5%, 57% and 55% respectively for Vihiga which were lower than national retention rates of 84.1%, 86.2%, 87.4%, 88% and 88.3%. Completion rates were 51.1%, 52.8%, 53.2%, 51.7% and 54.7% respectively for Emuhaya, 47.6%, 48.6%, 51.5%, 50% and 52% respectively for Vihiga which were lower than national completion rates of 86%, 88.8%, 87.1%, 89.1% and 89.6%. Transition rates were 11.2%, 11.8%, 12.2%, 12.9% and 13.4% respectively for Emuhaya, 10.6%, 10.9%, 11.5%, 12.0% and 12.8% respectively for Vihiga which were lower than national transition rates of 24.1%, 24.3%, 27.3%, 29.1% and 29.6%. Kenya Certificate of Secondary Education performances mean score were 3.1, 3.0, 3.3, 3.2 and 3.6 respectively for Emuhaya, 2.9, 3.4, 3.0, 3.5 and 3.3 respectively for Vihiga which are below the average mean score of 6.0 (Kenya National Examination Council, 2012).

Free Secondary Education policy was meant to address retention rates, completion rates, transition rates and student academic performance (Republic of Kenya, 2005). However this has not been the case in Emuhaya and Vihiga Sub counties since retention rates, completion rates, transition rates and student academic performance are still low when compared to national rates. The impact of Free Secondary Education policy on retention rates, completion rates, transition rates from secondary to university and student academic performance in Emuhaya and Vihiga Sub Counties was not known. The Kenyan government plays a crucial role in financing public education especially secondary education. In 2007, the Task Force was set by the government to look into ways and means of reducing cost of secondary education on household (Ministry of Education, 2008). The Taskforce on Affordable Secondary Education recommended a Government monetary subsidy of Ksh. 10,265 per child to meet the costs of secondary education. To achieve the objectives the government provided a guide line as shown in (Table 1). Guided by this policy the government was expected to meet tuition fees of Kshs. 10,265 per student while the parents were to meet other requirements like lunch, transport, uniform and boarding fees for those in boarding schools. Parents were also expected to contribute towards school development projects such as construction of dormitories, classrooms, school bus etc. This was in line with government commitment to ensure that regional special needs and gender disparities were addressed (Ohba, 2009). Free secondary Education subsidy was later revised through circular No MOEDSEC/5/17 of 2015 to Ksh 12,870 per child. This was due to the fact that despite disbursement of FSE funds, retention rates, completion rates, transition rates and student academic performance are still low. Further in 2017 the then Education Cabinet Secretary in consultation with education stakeholders further revised Free Secondary Education funds to Ksh 22,244 per student annually through Government circular No MOE/HQS/3/13/3 of 2018. It was disbursed first in

January 2018. The aim was to make day secondary education totally free and relief parents the burden of paying school fees (Ministry of Education, 2018). Parents were required to meet other requirements like lunch, uniform, transport, boarding fee for those in boarding schools besides development of approved school projects. Revised Free Secondary Education funds are distributed under the following vote heads (Table 2). It is evident that parents/guardian still have to contribute to secondary education hence parents from low socioeconomic backgrounds may not be able to meet other school levies. The Constitution of Kenya 2010 and The Basic Education Act of 2013 guarantees and provides legal mechanisms of ensuring every Kenyan citizen is accorded a chance to access basic education and other economic and social rights (Republic of Kenya, 2013). Specifically the constitution of Kenya (2010) articles 43(1)9f), 53(1) (b) and 55(a) makes education and training a right of every Kenyan. The constitution further mandates the Government to ensure inclusive and equitable quality education and promote lifelong learning opportunities (Republic of Kenya, 2019). According to Education for All monitoring Report (2012), Kenya is one of the countries where the secondary enrollment has significantly increased together with Burkina Faso, Burundi, Chad, Congo, Niger, and Tanzania among others. However, ensuring these learners remain in school up to the end remains a challenge (Asena, Mukasa & Riechi, 2016).

Across the world about 71 million teenagers are unable to attend secondary education fully missing a vital skill for future employment; this jeopardizes economic growth and social cohesion (UNESCO, 2012). Non completion of secondary schooling has greater consequences on retention. This has been a matter of concern for policy makers worldwide (Gray, 2009). According to World Bank (2005) to achieve high rate of access, retention and completion in the developed countries such as Germany, Great Britain, United States of America and others, a subsidized education system was attached to adequately fund the poor in secondary education. This led to increase in retention and completion in secondary education (World Bank, 2005). However retention rates were not computed which could have added more value to the study. In Canada when school fees was integrated in education system, the government found that there were some parents not unable to afford school fees. This inability made the government to intervene in provision of subsidized education which ensured no child was denied access to education. This led to high retention rates (Khamati & Nyongesa, 2013). The government of Thailand recognizes the importance of secondary schooling. This was reflected in the second large public expenditure (28%) allocated for this level after primary level of education budget which amounted to approximately 5% of national budget. On the contrary very few students remained in the system (UNESCO, 2008). Shahinsha (2010) noted that in Pakistan cultural values, shortage of teachers and lack of community involvement is the reason for low retention rates at primary school level. In Australia, a study by Hsieh and Urguilola (2002) showed that the Australian government decision to provide subsidized education had positively influenced retention rates. According to World Bank (2005) to achieve high rate of secondary retention rate developed countries such as Germany, Britain, United States of America and others have been attached to education subsidized system that adequately fund the poor in secondary education.

Ghana is one of the countries that has been providing Free Basic Education since 1996. Under Free Compulsory Universal Basic Education not only primary but also lower secondary education became free of charge. However as a result of abolition of school fees, some schools introduced indirect fees to compensate the lost revenue which was in some cases an obligation for district authorities (MOE/GES, 2001 cited in Akyeampong, 2009). Thus, parents in primary and lower secondary school were still required to pay operational costs, Parent Teacher Association textbooks, uniforms and other costs. Studies on learners' retention of basic education in Ghana showed that although Free Compulsory Universal Basic Education made an overall enrollment and retention rates to increase, children from poor households continued to be underrepresented in enrollments and retention rates in their basic education (Akyeampong, 2009). Rolleston (2009), made it explicit that not only does indirect costs hinder access and retention of the poor but also opportunity costs substantially affect the chances of poor children to enroll and be retained in school for basic education.

A study of Universal Secondary Education in Malawi showed that despite the abolition of school fees and the non-enforcement of school uniforms, parents were still required to incur expenses for exercise books, pens and uniform (Bisika, 2005). The sum of the hidden costs was actually more than the amount formerly required for fees because poor households with many children started sending their children to schools offering free education, the allocation of household expenditure on education was eventually increased. The poorest household spent 13% of their household expenditure on education compared to 7.5% of household expenditure spent by the upper quintile (Bisika, 2005). In Malawi with introduction of Universal Secondary Education retention rate within secondary cycle improved from 23 percent to 32 percent in 2007 (Lewin & Caillods, 2009). A study of retention patterns in secondary education in Malawi concludes that retention in education continues to reflect the household wealth (Chimombo, 2009). Although the introduction of a Nine Year Basic Education Programme in Rwanda led to change in the Gross Enrollment Ratios and Gross Completion Ratios from 16.6% in 2005 to 18.3% in 2006, girls remained underrepresented in the overall enrollments, showing 47.5% in 2006, compared to 47.2% in 2005. While Uganda introduced Universal Secondary Education, parents were still required to pay boarding and medication costs which affected retention rates (UNESCO, 2007). Free Secondary policy was introduced in Kenya in 2008 to enhance retention rates (Ministry of Education, 2007). Secondary Schools enrolment in Kenya has increased since the introduction of subsidized Free Secondary Education by the government in 2008 after Free Primary Education in 2003, however the ability to keep learners in school remain a difficult challenge. Retention of the students already enrolled within education system for a defined period is a big challenge to Kenya and other third world countries (Asena et al, 2016). Ngau (1991) observed that children from poor families are not easily retained in school than their advantaged counterparts. However she noted that this does not mean that growing up in a poor family itself determined school failure. Children from poor family background need special attention or program in order to assist them overcome the problem related to poverty. However, increased access and retention of learners to complete the basic education cycle is likely to beat the expense of other basic needs of households.

Apiyo and Simatwa (2012) did a study on influence of FSE on participation in education in mixed day secondary school in Siaya. The study established that a significant number of cohort female students who enroll in form one in mixed secondary schools do not survive up to form 4. In 2007 and 2011, 76.06% and 74.5% survived up to form 4, therefore fluctuating trends in actual survival of girl child from grade to grade both before and after the introduction of FSE policy. The survival rate of Girl child in form one and form two between 2003 and 2005 was 82.16% for 2004 cohort while for 2008 cohort their survival rate in form one and two was 91.40%. This is in contrast to survival rate of girl child in form two and three during the period 2005-2006 and 2009-2010 which were 93.92% and 83.63% respectively giving a decrease in survival rate despite FSE policy. The study looked at only the girl child participation in education while this study looked at both male and female students since both boys and girls receive FSE funds. Kiplangat and Simatwa (2012) in his study on influence of FSE policy on retention of secondary students in Kuresoi established that FSE policy had significantly influenced retention of secondary school students in Kuresoi as student were learning continuously and that cases of dropout had declined significantly from 11.34% in 2004 to 4.26% in 2011. Cases of girls who had dropped out of school due to early pregnancy and marriage were able to come back to school and continue with learning. Cases of child labor had also significantly reduced. Retention rates were not computed which could have added value to the study.

Asena et al (2016) did their study on the relationship between subsidized Free Day Secondary Education and Retention in Secondary Schools in Bungoma County. The study established that there was an increase in the enrollment rates every year from the year 2009 to 2014 as from 524.3191 in the year 2009 to 1052.5789. In the year 2014, dropout rates reduced and transition rates increased therefore more learners are completing school hence retention was therefore higher. These findings concur with those of Kiplangat who found that that FSE policy had significantly influenced retention of secondary school students in Kuresoi. Both studies looked at relationship between FSE policy and retention but did not calculate retention rates which could have added value to the studies. In addition the researchers did not carry out a correlation to establish the relationship which is one of the weaknesses of the studies. According (Kothari & Garg, 2014) to a study that involves relationship is best studied by carrying out correlation which provides better understanding of research problem. Mathu (2016) did a study on influence of free primary education funding on the pupils' retention rates, in Gatanga District. The study established that provision of physical facilities e.g. availability of classrooms, latrines, workshops, playground, and textbooks contributed to higher levels of retention. The study looked at influence of free primary education funding on the pupils' retention rate in public primary schools. This study looked at the impact of FSE policy on retention rates in secondary schools. Muli (2017) did a study on factors affecting retention rates of pupils in Public primary schools in Hindi Division, Lamu West Sub County, Lamu County Kenya. He found that aspects of family background such as level of education of parents, gender of children in family, economic background of family and aspirations of family affected retention rates. It was also noted that learning aspects such as availability of textbooks/teaching aids, parents clubs and social facilities around the school, gender of children in family and achievement levels affected

retention rate. Socio-cultural practices, relevance of education to society and number of children in family also affected retention rates. This study concurred with findings of Mathu that provision of physical facilities e.g. availability of classrooms, latrines, workshops and playground respectively affected pupils' retention rate. This study was done in Public primary schools and it looked at factors affecting retention rates of pupils in Public primary schools; however this study looked at the impact of FSE policy on retention rates in Public secondary schools to find out if with the introduction of the policy, these factors have been eliminated. Chepkoech (2018) did a study on extent of effect of Tuition Free secondary education subsidy on Retention in Public secondary schools in Kasarani, Nairobi County. The study used descriptive survey design. Data was analyzed using descriptive statistics in form of percentages. The study established that Tuition Free secondary education subsidy increased student retention rates as indicated by reduced repetition rates. The study did not calculate retention rates which could have added more value to the findings. The study looked at extent of effect of Tuition Free secondary education subsidy on Retention in Public secondary schools. This study looked at the impact of FSE policy on retention rates in secondary schools. From the studies reviewed Apiyo (2012), Kiplangat (2012), Osena, Mukasa and Riechi (2016), Mathu (2016), Muli (2017) and Chepkoech (2018) no study has addressed the impact of FSE policy on retention rates. This is the knowledge gap that this study sought to fill using Emuhaya and Vihiga Sub Counties as the site for the study.

According to Economic Surveys 2005, 2006, 2007 and 2008 retention rates nationally were 78.4%, 81.0%, 79.7% and 82.0% respectively. In Emuhaya and Vihiga Sub counties retention rates from 2004 to 2007 were 48.1%, 50.6%, 47.5%, and 51.1% respectively for Emuhaya, 48.5%, 49.2%, 54.4% and 52.7% respectively for Vihiga which were lower than national retention rates. This means in Emuhaya and Vihiga Sub Counties an average of 49.25% of students who join form one remain in school up to form four which is lower than the average national figure of 80.3%. This means despite national retention rates being high in Emuhaya and Vihiga Sub Counties, only 49.25% of students are retained in school. With the introduction of Free Secondary Education policy it was expected that what was making students who join form one not to remain in school up to form four will be removed. Table 3 shows retention rates (%) in Vihiga, Sabatia, Emuhaya and Hamisi Sub Counties for the years 2004, 2005, 2006 and 2007.

From Table 3 it can be noted that national retention rates ranged between 78.4% and 82.0%. This implies that nationally 78.4% to 82% of students were retained in school. Retention rates for Emuhaya and Vihiga Sub Counties are below the national retention rates with the least being 45.8% and highest 52.7% for the years 2004 to 2007. This implies that in Emuhaya and Vihiga Sub Counties only 45.8% to 52.7% students who join form one were retained in school. Table 4 shows retention rates (%) in Vihiga, Sabatia, Emuhaya and Hamisi Sub Counties for the years 2008, 2009, 2010, 2011 and 2012 that is, after the introduction of Free Secondary Education policy. From Table 4 it can be oted that national retention rates ranged between 84.1% and 88.3%. This implies that nationally 84.1% to 88.3% of students were retained in school. Despite the introduction of Free Secondary Education Policy, retention rates for Emuhaya and Vihiga Sub Counties are still below the national retention rates with the least being

53.1% and highest 58.3% for the years 2008 to 2012. This implies that in Emuhaya and Vihiga Sub Counties only 53.1% to 58.3% were retained in school. This was a concern since with introduction of Free Secondary Policy retention rates were expected to increase and be sustained. This was an indication of underlying problem of retention rates. What was not known was the impact of Free Secondary Education policy on retention rates in Emuhaya and Vihiga Sub Counties. Studies done by State University (2002) indicated that completion rates differ due to various demographic factors. The study showed that main factors preventing learners from completing Secondary Education include absenteeism, discipline related cases, early pregnancy, early marriages, poverty, effect of HIV/AIDS, drug abuse, peer pressure, distance from home and violence. Informal meeting of Organization for Economic Cooperation and Development ministries of education, Oslo 2009, June 9th-10th indicated that completion rates vary greatly between Organization for Economic Cooperation and Development countries (Organization for Economic Cooperation and Development, 2009). This is confirmed by the study by state University (2002) which also confirmed that completion rates vary from one region to another. Goldbrick-Rab (2006) carried out Investigation on Social Class difference in college pathways in USA. She focused on the ways in which family background and preparation for college affects choices that students make once they are in college. He found that students from low socio economic background had over four times the odds of belonging to the interrupted movement categories and have higher probability of following a path way that will lead to non-completion while those from high socio-economic background were more likely to engage in fluid movement.

Study by Gropello (2008) on secondary education in Latin America and East Asia found that lack of Private resources is a key determinant of completion rates of secondary education. Direct costs are potential constraints to schooling in both regions. This study intended to determine whether direct costs were determinants of completion of secondary education in Latin America and East Asia. The results showed that there was decline in completion rates at secondary level indicating that there is direct correlation between government funding and completion rates. The government focused on improving completion rates and the quality of education to raise overall productivity and attainability of the labor force (World Bank, 2005). The United Kingdom abolished fees for state secondary schools through the Butier Act of 1944 and compulsory school leaving ages was increased from 14 to 15 years which made education more accessible and it improved completion rates (Cameroon, 1997).

Synthesis Of Literature On Impact Of Free Secondary education policy on retention rates in schools: Across the world about 71 million teenagers are unable to attend secondary education up to the end missing a vital skill for future employment; this jeopardizes economic growth and social cohesion (UNESCO, 2012). Non completion of secondary schooling has greater consequences on retention. This has been a matter of concern for policy makers and worldwide (Gray & Mark, 2009). Study by World Bank (2005) found out that to achieve high rate of access, retention and completion in developed countries such as Germany, Great Britain and United States of America, attachment had been done on an education subsidized system that adequately funds the poor in secondary education. This led to increase in

retention and completion in secondary education (World Bank, 2005). However retention rates were not computed which could have added more value to the study. In Canada when school fees were integrated in education system, the government found that there were some parents who were unable to afford school fees. This inability made the government to intervene in provision of subsidized education which ensured no child was denied access to education. This led to high retention rates (Khamati & Nyongesa, 2013).

The government of Thailand recognizes the importance of secondary schooling. This is reflected in the second large public expenditure (28%) allocated for this level after primary level of education budget which amount to approximately 5% of national budget. On the contrary very few pupils remain in the system (UNESCO, 2008). Study by Shahinsha (2010) noted that in Pakistan cultural values, shortage of teachers and lack of community involvement was the reason for low retention rates at primary school level. In the Netherlands, (Kraaykamp, 2000) and the United Kingdom (Sullivan, 2001), found that the occupation of the father and their level of education, had a stronger effect to the progress and retention of children in school. This varied in Italy and most nations of South America where parental level of education seemed to be the decisive variable (World Bank, 2001). Mother's level of education had an added significant influence on children progress in school over that of the father. Students with mothers who have completed upper secondary education were likely to be retained more and perform better in terms of reading at fifteen years and perform better still even if their mother has been to university. Conversely, the retention of those whose mothers have not completed secondary education was weaker, although this was not true to countries like Germany and Mexico where high retention rates were noted among those whose mothers were not highly educated. This implied that some general educational or social factors compensated for the learners. Children born to single parent families were found to be scoring impressively well unlike some who had both parents. However, a number of single parents had inability to pay fees constantly to retain the learners in school. Therefore environmental factors had strong influence on retention other than the family background (Sullivan, 2001). These studies looked at factors that influence retention of learners in school but did not compute retention rates which could have added more value to the study. This study looked at the impact of FSE policy on retention rates.

In Australia, a study by Hsieh and Urguilola (2002) revealed that the Australian government decision to provide subsidized education had positively influenced retention of learners in school. The study used secondary data and only questionnaires were used to collect data. The use of primary data and interviews could have added more information on the study. This study used questionnaires, interviews and focus group discussions to collect information on the subject of study. Ghana is one of the countries that has been providing Free Basic Education since 1996. Under Free Compulsory Universal Basic Education not only primary education but also lower secondary education became free of charge. However as a result of abolition of school fees, some school introduced indirect fees to compensate the lost revenue which was in some cases an obligation for district authorities (MOE/GES, 2001 cited in Akyeampong, 2009). Thus, parents in primary and lower secondary school were still required to pay operational costs, Parent Teacher Association textbooks, uniforms and

other costs. Studies on learners' access and retention to completion of basic education in Ghana showed that although the Free Compulsory Universal Basic Education made an overall enrollment and completion rates increase, children from poor households continued to be underrepresented in enrollments and completion rates in their basic education (Akyeampong, 2009). Study by Rolleston (2009), made it explicit that not only do indirect costs hinder retention of the poor but also opportunity costs substantially affect the chances of poor children to enroll and complete basic education. A study of Universal Secondary Education in Malawi showed that despite the abolition of fees and the non-enforcement of school uniforms, parents were still required to incur expenses for exercise books, pens and uniform (Bisika, 2005). Hidden costs were actually more than the amount formerly required for fees because poor households with many children started sending their children to schools offering free education. The poorest household spent 13% of their household expenditure on education compared to 7.5% of household expenditure spent by the upper quintile (Bisika, 2005). Other studies also show that although free education reduces households' direct costs, indirect costs remain a substantive deterrent for children from poor households to be retained to complete their basic education (UNESCO, 2007).

In Malawi the introduction of USE made retention rates within secondary cycle to improve from 23 percent to 32 percent in 2007 (Lewin & Caillods, 2009). A study on retention patterns in Malawi also concluded that access and retention to education continues to reflect the household wealth (Chimombo, 2009). Although the introduction of a Nine Year Basic Education Programme in Rwanda led to the Gross Enrollment Ratios and Gross Completion Ratios from 16.6% in 2005 to 18.3% in 2006, girls remained underrepresented in the overall enrollments, showing 47.5% in 2006, compared to 47.2% in 2005. Free Secondary policy was introduced in Kenya in 2008 to enhance retention rates (Ministry of Education, 2007). Secondary Schools enrolment in Kenya has increased since the introduction of subsidized free day secondary education by the government in 2008 after Free primary education in 2003, however the ability to keep learners in school remain a difficult challenge (Asena, Mukasa & Riechi, 2016). Ngau (1991) observed that children from poor families are not easily retained in school as their advantaged counterparts. However she noted that this does not mean that growing up in a poor family itself determined school failure. Children from poor family background need special attention or program in order to assist them overcome the problem related to poverty. However retention of learners to complete the basic education cycle is likely to beat the expense of other basic needs of households.

Apiyo and Simatwa (2012) did a study on influence of FSE on participation of girls in education in mixed day secondary school in Siaya County. Data was analyzed using descriptive statistics in form of percentages, frequency counts and means. The study established that a significant number of cohort female students who enroll in form one in mixed secondary schools do not survive up to form 4. In 2007 and 2011, 76.06% and 74.5% survived up to form four, therefore fluctuating trends in actual survival of girl child from grade to grade both before and after the introduction of FSE policy. The survival rate of girl child in form one and form two between 2003 and 2005 was 82.16% for 2004 cohort while for 2008 cohort their survival rate in form one and two was 91.40%.

This is in contrast to survival rate of girl child in form two and three during the period 2005-2006 and 2009-2010 which were 93.92% and 83.63% respectively giving a decrease in survival rate despite the free secobdary policy. The study looked at only the girl child participation in education while this study looked at both male and female students since both boys and girls receive FSE funds. In addition to measure influence descriptive statistics was not suitable therefore he could have used inferential. Kiplangat and Simatwa (2012) did a study on influence of FSE policy on retention of secondary students in Kuresoi. The study established that FSE had influenced retention rates positively as student were learning continuously, cases of dropout had declined significantly from 11.34% in 2004 to 4.26% in 2011 and repeater rates reduced by 0.51% in 2011. Cases of girls who had dropped out of school due to early pregnancy and marriage were able to come back to school and continue with learning. Cases of child labor had also significantly reduced. Data was analyzed using descriptive statistics. Retention rates were not computed which could have added value to the study. The study did not determine retention rates. Descriptive statistics was not suitable to measure influence therefore he could have used inferential statistics.

Asena et al (2016) in their study on the relationship between subsidized Free Day Secondary Education and Retention in secondary schools in Bungoma County established that, the enrollment of learners had increased with that of the boys' students increasing to 533.1034 from 259.9310 while that of girls increased to 412.6316 from 282.5667 prior to the introduction of SFDSE in the year 2008 by the government. There was an increase in the enrollments rates every year from the year 2009 to 2014 as from 524.3191 in the year 2009 to 1052.5789 in the year 2014. The gradient of 137.5 also showing there was a highly positive trend in the increase in the enrollment rates over the years. The respondents indicated that not all the students who joined their schools completed the four-year secondary school level cycle. When asked to give reasons, 54.3% of the respondents who filled the Principal's questionnaires indicated it was due to lack of fees by the parents/guardians, 20.7% due to early pregnancies in case of the girls, 18.5% transferred to other schools while 6.5% due to early marriages. Data obtained from the Sub County Education Officials interview schedules also pointed out that for all schools there were dropouts mainly due to teenage pregnancies among girls. The dropout rates of learners also dropped to a mean of 4.8 in the year 2013 from 37.0 in the year 2009. The graph also gave a negative linear trend (gradient of -9.26) showing that there has been a steady reduction in dropout rate over the years from the year 2009 to the year 2013 of learners in secondary school level education in Bungoma County. There has also been a steady increase in learners' transition rates from the year 2009 to the year 2013 as shown by an increase in means from 58.5366 in the year 2009 to 78.0851 in the year 2013. The graph also gave a positive trend (gradient of 5.542) showing that there has been a steady increase in the transition rates over the years from the year 2009 to the year 2013. From the above it came out that since the introduction of FSE policy the number of enrollments has increased. Dropout rates reduced and transition rates increased therefore more learners were completing school. The school retention rates were therefore higher. These findings concurred with those of Kiplagat who found that that FSE policy had significantly influenced retention of secondary school students in Kuresoi. Both studies looked at relationship between FSE policy and retention but did not calculate retention rates which could have

added value to the studies. In addition to the two studies correlation was not done to establish the relationship which is one of the weaknesses of the studies. According to (Kothari & Garg, 2014) a study that involves relationship is best studied by carrying out correlation which provides better understanding of research problem. Mathu (2016) did a study on the influence of free primary education funding on the pupils' retention rate, in Gatanga District. The study established that provision of physical facilities e.g. availability of classrooms, latrines, workshops, playground, and text books contributed to higher levels of retention. 70% of the Head teachers strongly agreed that availability of classrooms, latrines, workshops and playground respectively affected pupils' retention rate. In addition, 50% of head teachers agreed that availability of workshops influenced pupils' retention in schools. Further, 57.1% agreed that availability of latrines influenced primary school pupils' retention. On materials and equipment 57.1% of guidance and counseling teachers agreed that availability of text books contributed to higher levels of retention.

On the other hand, 50% of the Head teachers strongly agreed that having desks and text books contributes to retention of pupils in school. Likewise, more than half of the class teachers agree that having textbooks and ICT infrastructural materials contributed to retention. On services provision, the study's findings indicated that 71.4% of the guidance and counseling masters strongly agree that availability of funds to cater for school activities transport and wages for support staff has contributed to pupils' retention in school. In addition, about 50% of the Head teachers strongly agreed that waiving the student fees on transport and wages for support staff had contributed to retention of pupils in school. The study looked at influence of free primary education funding on the pupils' retention rate in public primary schools while this study looked at the impact of FSE policy on retention rates in secondary schools. Muli (2017) did a study on factors affecting retention rates of pupils in Public primary schools in Hindi Division, Lamu West Sub County, Kenya. He found that aspects of family background such as level of education of parents, Gender of children in family, economic background of family and aspirations of family affected retention rates. It was also noted that learning aspects such as availability of textbooks/teaching aids, parents clubs and social facilities around the school, gender of children in family and achievement levels affect retention rate. Socio-cultural practices, relevancy of education to society and number of children in family also affected retention rates. This study concurred with findings by Mathu that provision of physical facilities e.g. availability of classrooms, latrines, workshops and playground respectively affected pupils' retention rate. This study was done in Public primary schools and it looked at factors affecting retention rates of pupils in Public primary schools, however this study looked at the impact of FSE policy on retention rates in public secondary schools to find out if with the introduction of policy these factors have been eliminated. Chepkoech (2018) did a study on extent of effect of Tuition Free secondary education subsidy on Retention in Public secondary schools in Kasarani, Nairobi County. The study used descriptive survey design. Data was analyzed using descriptive statistics in form of percentages. The study established that Tuition Free secondary education subsidy increased student retention rates as indicated by reduced repetition rates. The study did not calculate retention rates which could have added more value to the findings.

The study looked at extent of effect of Tuition Free secondary education subsidy on Retention Public secondary schools. This study looked at the impact of FSE policy on retention rates in secondary schools. From the studies reviewed Apiyo (2012), Kiplagat (2012), Osena, Mukasa and Riechi (2016), Mathu (2016), Muli (2017) and Chepkoech (2018) none has addressed the impact of FSE policy on retention rates. This is the knowledge gap that this study sought to fill using Emuhaya and Vihiga Sub-Counties as the site for the study.

Research Objective

The research objective was to: Determine the impact of free secondary education policy on retention rates in public secondary schools.

CONCEPTUAL FRAMEWORK

This study was based on the conceptual framework of investment choices by Psacharopoulos and Woodhall (1985). According to the model there is a relationship between inputs and output in the education system. Conceptual framework postulates that FSE policy impacts positively on retention rates, completion rates, transition rates and student academic performance. The independent variable in this study was FSE policy while the dependent variable was retention rates. Adaptation of this model involved one independent variable, four dependent variables and with intervening variables. The model provides a production function equation in which we have one independent variable and many dependent variables. The use of this model is justified because according to Woodhall (2004) education is a form of investment that yields economic benefits and contributes to countries future wealth by increasing productive capacity of its people. This model was also justified because it has been used by several researchers like Ngeno (2015) and Simatwa; Ndolo and Simatwa (2016) gave valid results. The concept was relevant because the government has made a choice to invest in education in order to improve retention rates, completion rates, transition rates and student academic performance.

The conceptual frame work (Figure 1) presupposes that provision of Free Secondary funds to secondary schools has an impact on retention rates, completion rates, transition rates and student academic performance. Free secondary funds enable students from poor families to remain in schools and schools to provide resources to students. This was expected to improve retention rates, completion rates academic performance which intern will enable more students to transit to university. However retention rates, completion rates, transition rates and student academic performance are affected by attitude of teachers and attitude of students. These were intervening variables. Intervening variables were controlled by sampling technique which allowed the positive and negative influence to neutralize each other. FSE policy was looked at in terms of the money the government sends to schools for the cohorts 2013, 2014 and 2015. Conceptual framework helped the researcher to focus on the variables of the study. The conceptual framework was adapted to focus on the independent and dependent variables. Independent variable was Free secondary policy while dependent variable was retention rates. According to McBurney and White (2010) an independent variable is chosen by a researcher to determine the effect and behavior while dependent variable is a measure of a subject's behavior that determines independent variable.
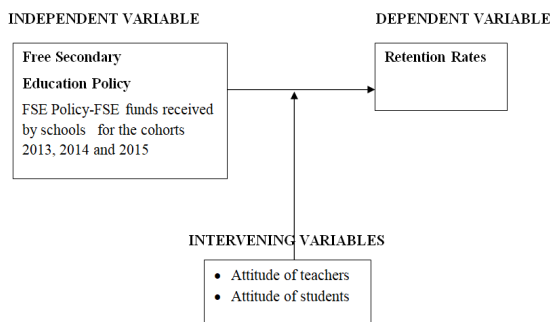
Figure 1. A Conceptual Framework showing Impact of FSE policy on Retention Rates in Public Secondary Schools in Emuhaya and Vihiga sub counties

FSE funds are used to cater for; repair maintenance and improvement, medical Insurance (safety and protection), local travel and transport, administration cost, electricity, water and conservancy, personal emoluments, Strengthening Mathematics and Science Education, text books, exercise books, laboratory equipment's, chalk, reference/Library material and exam and assessment. FSE policy is expected to have an impact on retention rates, completion rates, transition rates and student academic performance. Retention rates, completion rates and transition rates were calculated using a formula. Student academic performance was measured in terms of Kenya Certificate of Secondary Education (KCSE) mean scores. Kenya Certificate of Secondary Education mean scores for each of the schools for the three cohorts were recorded. Pearson moment of correlation coefficient and Coefficient of determination was were used to establish the impact of FSE funds on retention rates.

RESEARCH METHODOLOGY

Ex-post facto, descriptive survey and correlation research designs were used. Emuhaya and Vihiga sub counties were used as the site for the study. The study population comprised of 56 principals, 130 form four class teachers, 2 Sub County Quality Assurance Standards Officers and 6490 form four students. Yamane formula was used to get sample size. Saturated sampling was used to select principals and Sub County Quality Assurance Standards Officer. Simple random sampling was used to select 98 form four class teachers and 377 form four students. Questionnaire, interview schedule, document analysis and focus group discussions were used to collect data. Validity of the instruments was determined through the help of Supervisors. Reliability was established through test-retest method using 6 schools. Data obtained from pilot study was correlated. Cronbach's alpha was used to determine reliability of the instruments. Reliability index for principals' and class teachers' questionnaires were 0.76 and 0.72 respectively. Since they were higher than 0.70, the instruments were considered reliable. Quantitative data was collected using closed items of questionnaires and document analysis guide and analyzed using cohort analysis, descriptive and inferential statistics. Qualitative data was transcribed and analyzed into emergent themes and sub themes.

RESULTS

Demographic Characteristics Respondents: This section provides the characteristics of principals in relation to gender, highest professional qualification and experience in leadership

(Table 5). Table 5 shows that 50 (100%) principals involved in the study 32(64%) were male while 18 (36%) were female. This shows that few female teachers are appointed as principals in Emuhaya and Vihiga Sub Counties. This implies that female principals are fewer than male principals to the task of school planning and management public secondary schools in Enuhaya and Vihiga Sub Counties. Concerning highest professional qualification for principals 5(10%) had master's degree, 45(90%) holds Bachelors of Education, 0(0.00%) holds Diploma in Education. This shows that 95% of the principals in the public secondary schools in Emuhaya and Vihiga Sub Counties possess degree qualifications hence are well trained thus had rich information and knowledge on the impact of FSE policy on retention rates, completion rates transition rates and student academic performance in Emuhaya and Vihiga Sub Counties and therefore could offer reliable information. Principals' experience indicated that 4 (8%) had experience of between 1-5 years, 12 (24%) had an experience of 6-8 years while 34(68%) had an experience of more than 8years.This mean that majority of the principals are experienced and it means they have better understanding of FSE policy because of the long years of service in leadership position. This findings are in agreement with a study carried out by Omandi (2015) where it was indicated that out of 40 sampled school principals one (2.5%) had headship experience between 1-5 years, 12(30%) had an experience of 6-10 years, 17(42.50%) had an experience of 11-15 years while 10 (25%) had an experience of 16-20 years. This again implies that in this study Principals had enough experience on management and they were able to give important information on enrolment, experience to answer questions concerning repetition, retention rates, completion rates, transition rates and student academic performance in Emuhaya and Vihiga Sub Counties. Principals with experience can be relied on for the authenticity of the data collected Omandi (2015). Table 6 shows that 67 (68.37%) of the class teachers involved in the study were males and only 31 (31.43%) were females. On highest professional qualification 10 (10.20%) of class teachers hold master's degree, 80 (81.64%) hold a degree in Bachelor of Education and 8(8.16%) hold Diploma in Education. From Table 7, two (4%) of schools are boys boarding, 10(20%) of schools are girls boarding, 32(64%) of schools are mixed day schools, 3(6%) of schools are boys day and boarding, 1(2%) of schools are girls day and boarding while 2(4%) of schools are mixed day and boarding.

Research Objective

The research objective was to determine the impact of FSE Policy on retention rates in public secondary schools in Emuhaya and Vihiga Sub Counties. The researcher used null and alternative hypotheses: "Free secondary education policy has no impact on retention rates in public secondary schools in Emuhaya and Vihiga Sub Counties" and "Free secondary education policy has impact on retention rates in public secondary schools in Emuhaya and Vihiga Sub Counties were adopted". To respond to these hypotheses data on enrollment, repetition and new students for the three cohorts 2013, 2014 and 2015 cohort was collected from principals in 50 public secondary schools in the Sub Counties and presented as shown in Table 8. Retention rates were computed using the formulae as given by UNESCO (2009). Table 8 shows enrollment, repetition, new students and graduates in Emuhaya and Vihiga Sub Counties for the 2013, 2014 and 2015 cohort. The data was used to compute retention rates for 2013, 2014 and 2015 cohorts and presented as shown in Table 9.

Table 1. Guidelines on Free Secondary Education Policy

Vote head	Day School (Ksh)		
	Government of Kenya subsidy (FSE)	Government of Kenya subsidy (FSE)	Parent fees
Tuition	3600	3600	0
Repair maintenance and improvement	400	400	400
Local travel and transport	400	400	500
Administration costs	500	500	350
Electricity water and conservancy	500	500	1500
Activity fees	600	600	0
Personal Emoluments	3965	3965	2743
Medical	300	300	100
Boarding Equipment and store	0	0	13034
Total	10,265	10,265	18,635

Source: Ministry of Education (2009)

Table 2. Revised Guidelines on Free Secondary Education Policy

Vote head	Amount
Teaching /learning materials	1640
Repair maintenance and improvement	680
Medical Insurance (safety and protection)	200
Local travel and transport	680
Administration cost	1040
Electricity, water and Conservancy	1040
Activity fees	1040
Personal emoluments	6920
Strengthening Mathematics and Science Education	400
Text books	5122
Exercise books	2048
Laboratory equipment	820
Chalk	102
Reference/Library material	204
Exam and Assessment	308
Total	22,244

Source: Ministry of Education (2018)

Table 3. Retention Rates (%) in Vihiga, Sabatia, Emuhaya and Hamisi Sub Counties in 2004 to 2007

	2004	2005	2006	2007
National	78.4	81.0	79.7	82.0
Emuhaya	48.1	50.6	47.5	51.1
Vihiga	45.8	49.2	54.4	52.7
Sabatia	55.1	56.4	55.7	57.4
Hamisi	56.7	57.6	55.9	57.5

Source: Vihiga County Education Office (2018), Economic Surveys (2005, 2006, 2007 and 2008)

Table 4. Retention Rates (%) in Vihiga, Sabatia, Emuhaya and Hamisi Sub Counties in 2008 to 2012

	2008	2009	2010	2011	2012
National	84.1	86.2	87.4	88.0	88.3
Emuhaya	53.1	55.8	53.0	56.0	55.4
Vihiga	54.6	58.3	56.5	57.0	55.0
Sabatia	59.1	61.2	64.3	66.0	67.0
Hamisi	58.6	60.0	62.1	64.2	66.4

Source: Vihiga County Education Office, 2018, Economic Survey, 2009, 2011, 2012 and 2013

Table 5. Demographic Characteristics of Principals (n = 50)

Demographic Characteristics	Frequency (f)	Percentage (%)
Gender		
Male	32	64.00
Female	18	36.00
Total	50	100.00
Highest Professional Qualifications		
Doctor of Philosophy	0	0.00
Master of Education	5	10.00
Bachelor of Education	45	90.00
Diploma	0	0.00
Total	50	100.00
Principals' Experience		
1-5 years	4	8.00
6-8 years	12	24.00
Above 8 years	34	68.00
Total	50	100.00

Source: Field Data, 2020.

Table 6. Demographic Characteristics of Class teachers (n=98)

Demographic Characteristics	Frequency (f)	Percentage (%)
Gender		
Male	67	68.37
Female	31	31.63
Total	98	100.00
Highest Professional Qualifications		
Doctor of Philosophy	0	0.00
Master of Education	10	10.20
Bachelor of Education.	80	81.64
Diploma	8	8.16
Total	98	100.00

Source: Field Data, 2020.

Table 7. Distribution of Public Secondary Schools in Emuhaya and Vihiga Sub Counties by category

School Category	F	Percentages (%)
Boys boarding	2	4.00
Girls boarding	10	20.00
Mixed day school	32	64.00
Boys day and boarding	3	6.00
Girls day and boarding	1	2.00
Mixed day and boarding	2	4.00
Total	50	100.00

Source: Field Data, 2020.

Table 8. Flow Chart showing Flow of 2013, 2014 and 2015 Cohorts

Year		Form 1	Form 2	Form 3	Form 4	Graduates
2013	E	5875				
R		91				
N		10				
2014	E	6017	5051			
R		81	206			
N		17	30			
2015	E	6231	5255	4679		
R		26	115	110		
N		23	18			
2016	E		5723	4866	4323	4323
R			31	101	121	
N			19	26		
2017	E			5299	4542	4542
R				53	113	
N				32	27	
2018	E				5144	5144
R					48	
N					29	

KEY: E – Enrolment   R – Repeater   N- New Students Source: Field Data, 2020.

Table 9. Comparison of Grade Retention rates in Emuhaya and Vihiga Sub Counties for 2013, 2014 and 2015 cohorts

Form	Retention Rate 2013 Cohort (%)	Retention Rate 2014 Cohort (%)	Retention Rate 2015 Cohort (%)
1-2	85.72	86.77	91.77
2-3	92.56	92.86	92.21
3-4	92.16	93.09	97.17
Average Retention Rate	90.15	90.91	93.72

Source: Field Data, 2020.

Table 10. Comparison of Retention Rates in Public Secondary Schools in Emuhaya and Vihiga Sub Counties

Retention rates (%)	No. of schools 2013 cohort		No. of schools 2014 cohort		No. of schools 2015 cohort	
	f	%	f	%	f	%
50.00-59.99	2	4.00	0	0.00	0	0.00
60.00-69.99	11	22.00	3	6.00	0	0.00
70.00-79.99	20	40.00	24	48.00	29	58.00
80.00-89.99	16	32.00	20	40.00	14	28.00
90.00-99.99	1	2.00	3	6.00	7	14.00
Total	50	100.00	50	100.00	50	100.00

Source: Field Data, 2020

Table 9 shows that Grade retention rates for 2013 cohort were; 85.72%, 92.56% and 92.16% for form 1-2, 2-3 and 3-4 respectively. For 2014 cohort retention rates improved that is; 86.77%, 92.86% and 93.09% for form 1-2, 2-3 and 3-4 respectively. For 2015 cohort retention rates improved further that is; 91.77%, 92.21% and 97.17% for form 1-2, 2-3 and 3-4 respectively. With the increase in FSE funding retention rates had improved since the number of students who remained in school between form 3-4 has improved that is; for the 2013 cohort which received Ksh 10,625 per student, 9215 students remained in school for every 10,000 students and after the amount was increased to Ksh 22,244 in 2017 for every 10000 students 9717 students are remained in school to continue with education. This is because with FSE policy most of the needs of students are met by the government which is enabling them to remain in school. Further Retention rates for the cohorts 2013, 2014 and 2015 were computed using UNESCO guide lines (2009) and results were as shown in Table 10.

Table 10 shows comparison of retention rates in public secondary schools in Emuhaya and Vihiga Sub counties as given by principals in fifty public secondary schools for 2013, 2014, and 2015 cohorts. For 2013 cohort schools that had retention rates 50.00-59.00 were 4%, 60.00-69.99 were 22%, 70.00-79.00 were 40%, and 80.00-89.99 were 30% while 90.00-99.99 were 2%. For 2014 cohort schools that had retention rates between 50.00-59.00 were 0.00%, 60.00-69.99 were 6%, 70.00-79.00 were 48%, 80.00-89.99 were 40% while 90.00-99.99 were 6%. For 2015 cohort schools that had retention rates between 50.00-59.00 were 0.00%, 60.00-69.99 were 0.00%, 70.00-79.00 were 28%, 80.00-89.99 were 58% while 90.00-99.99 were 14%. From Table 11 for 2013 cohort 54% of schools received less than Ksh 399, 999, 38% of schools received between Ksh 4,000,000 and Ksh 7,999,999,6% of schools got between Ksh 8,000,000 and Ksh 11,999,999, (2%) of schools got between Ksh 12,000,000 and Ksh 15,999,999, 0.00% of schools got between Ksh 16,000,000 and Ksh 19,999,999 while 0.00% of schools got between Ksh 20,000000 and Ksh. 23,999,999. For 2014 cohort 52% of schools received less than Ksh399, 999, 40.00% of schools received between Ksh 4, 000, 0000 and Ksh 7,999,999, 2% of schools got between Ksh 8,000,000 and Ksh 11,999,999, 6% of schools got between Ksh 12,000,000 and Ksh 15, 999, 999, 0.00% of schools got between Ksh 16,000,000 and Ksh 19,999,999 while 0.00% of schools got between Ksh 20,000,000 and Ksh. 23,999,999. For 2015 cohort 26% of schools received less than Ksh. 399,999, 44% of schools received between Ksh4, 000, 0000 and Ksh 7,999,999, 24% of schools got between Ksh 8,000,000 and Ksh 11,999,999, 0.00% of schools got between Ksh 12,000,000 and Ksh 15, 999, 999, 4.00% of schools got between Ksh 16,000,000 and Ksh 19,999,999 while 2% of schools got between Ksh 20,000,000 and Ksh.23, 999,999. The study undertook regression analysis to get actual impact of FSE policy on retention rates for the period 2013 to 2018. To achieve this data on FSE funding and retention rates for the three cohorts for every school were computed as shown in Tables 12 and 13. From Table 12 for 2013, 2014 and 2015 cohorts 21(42%) schools received a total amount of FSE funds of between 1.0 and 10.9 million, 22 (44%) schools received a total amount of FSE funds of between 11.0 and 20.9 million, 6(12.00%) schools received a total amount of FSE funds of between 21.0-30.9 millions, no school received a total amount of FSE funds of between 31.0-40.9 million while 1 (2%) school received a total amount of FSE funds of between 41.0-

50.9 millions. From Table 13 it shows that 2(4.00%) of schools had average retention rates of between 60.00% and 69.99%, 27(54.00%) of schools had average retention rates of between 70.00% and 79.99%, 19 (38.00%) schools had average retention rates of between 80.00% and 89.99% while 2(4.00%) of schools had average retention rates of between 90.00% and 99.99%. Most schools had retention rates between 70.00% and 89.99% meaning that FSE policy has improved retention rates hence students are going to school and remaining there to learn. Regression analysis was computed to find the actual impact of FSE policy on retention rates and the results were as shown in Table 14. From Table 14 the results show that there was a moderate and positive relationship between FSE funding and retention rates as signified by Pearson's Coefficient of 0.613. This relationship was statistically significant since 0.000 is less than 0.05 the p-value that was set. The null hypothesis was therefore rejected. This means that increase in FSE funding would lead to increase in retention rates. From Table 14 it can also be noted that Free Secondary policy accounted for 36.3% of the variation on retention rates as signified by the coefficient of 0.363. The other 63.7% could be explained by other factors such as parental socioeconomic activities among others. To determine whether FSE policy is a significant predictor of retention rates, Analysis of Variance was computed and the results tabulated in Table 15. Table 15 shows that FSE policy is a significant predictor of retention rates. This means that FSE policy can be relied on to explain the impact of FSE policy on retention rates as the calculated p-value 0.000<0.05. This means that Free Secondary Education policy can be relied on as a significant predictor of retention rates because most children were not being retained in school because they were unable to pay fees but now that the government pays their school fees it is possible to know if they will remain in school or not because some of the reasons affecting retention rates have been removed. In order to establish the actual impact of Free Secondary education on retention rates a linear regression analysis was performed and tabulated as shown in Table 16.

From Table 16 it can be revealed that one unit increase in Free Secondary education funding leads to an increase in retention rates by 0.005 units as indicated by the coefficient of 0.005. The regression equation is Y=0.726+0.005X. For instance using this equation it can be demonstrated that if FSE funding in one school for the period 2016 to 2018 was 48.34 million Kenya shillings, then the retention rate would be 0.726+0.005(48.34) =0.9677, that is, 96.77%. If FSE funding was increased to 60.22 million Kenya shillings then the retention rate would be 102.7%. This means that 100% retention rate can be achieved by increasing the amount of funding close to 60 million kes s for such a school. This is because the dropout rates would be reduced to zero as most students would be sustained in the school, teachers will be available as required, the teaching learning resources will be adequately available to the students and alos co-curricular activities will be gathered for as required. Furthermore, the ratio of support staff to students would be made as required. Interview and focus group discussion findings helped to explain regression model which indicated that the impact of Free Secondary policy accounted for 37.3% of the variation in retention rates as signified by the coefficient of 0.373. The other 63.7% could be explained by other factors like parental guidance, level of education of parents, economic background of the family and hidden costs which affect retention rates in Emuhaya and Vihiga Sub Counties besides FSE policy.

Table 11. FSE Funds received in Emuhaya and Vihiga Sub Counties by Public Secondary schools for 2013, 2014 and 2015 cohorts

Amount in Ksh	No. of schools 2013 cohort		No. of schools 2014 cohort		No. of schools 2015 cohort	
	F	%	F	%	f	%
Below 3,999,999	27	54.00	26	52.00	13	26.00
4,000,000-7,999,999	19	38.00	20	40.00	22	44.00
8,000,000-11,999,999	3	6.00	1	2.00	12	24.00
12,000,000-15,999,999	1	2.00	3	6.00	0	0.00
16,000,000-19,999,999	0	0.00	0	0.00	2	4.00
20,000,000-23,999,999	0	0.00	0	0.00	1	2.00
Total	50	100.00	50	100	50	100.00

Source: Field Data, 2020

Table 12. Cumulative FSE funding for 2013, 2014, 2015 cohorts in Kenyan Shillings in millions

Amount in Ksh in millions	Number of schools(f)	Percentage (%)
1.0-10.9	21	42.00
11.0-20.9	22	44.00
21.0-30.9	6	12.00
31.0-40.9	0	0.00
41.0-50.9	1	2.00
Total	50	100.00

Source: Field Data, 2020

Table 13. Average retention rates in public secondary schools for the three cohorts 2013, 2014 and 2015 cohorts

Retention rates (%)	Number of schools(f)	Percentage (%)
60.00-69.99	2	4.00
70.00-79.99	27	54.00
80.00-89.99	19	38.00
90.00-99.99	2	4.00
Total	50	100.00

Source: Field data

Table 14. Regression analysis for the impact of FSE funds on retention rates in Public Secondary schools in Emuhaya Vihiga Sub Counties

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			
						F Change	df1	df2	Sig. F Change
1	.613[a]	.376	.363	0.0525671	.376	28.921	1	48	.000

a. Predictors: (Constant), FSE Funds

Table 15. Analysis of Variance of the Impact of Free Secondary Education policy on retention rates in Public Secondary schools in Emuhaya and Vihiga Sub Counties

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	0.080	1	0.080	28.921	.000[b]
	Residual	0.133	48	0.003		
	Total	0.213	49			

a. Dependent Variable: Retention rates
b. Predictors: (Constant), FSE Funds

Table 16. Linear regression analysis of the Impact of Free Secondary Education policy on retention rates in Public Secondary schools in Emuhaya and Vihiga Sub Counties

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.726	.016		46.322	.000
	FSE Funds	.005	.001	.613	5.378	.000

a. Dependent Variable: Retention rates, Regression Equation Y=a+bx

DISCUSSION

Female principals are fewer than male principals to the task of school planning and management public secondary schools in Emuhaya and Vihiga Sub Counties. This findings agree with Koriyow (2018) who found that in Wajir County the number of Female principals in Public secondary schools is fewer than the number of male principals. Principals in the public secondary schools in Emuhaya and Vihiga Sub Counties possess degree qualifications hence are well trained thus had rich information and knowledge on the impact of FSE policy on retention rates, completion rates transition rates and student academic performance in Emuhaya and Vihiga Sub Counties and therefore could offer reliable information. They have the education which equips them with proper managerial and planning skills to implement FSE policy. This agrees with Sisungo, Buhere and Sang (2011) who found that education level of an individual enhances his/her proficiency, operational and conceptualization skills. Professional qualification is a factor which defines individual capabilities which indicate that the class teachers have prerequisite knowledge that enabled them to answer questions on the impact of FSE policy on retention rates, completion rates, transition rates and student academic performance According to Robbins (2003) the technical, human and conceptual skills gained in training will enable class teachers and principals in understanding issues related to retention rates, completion rates, transition rates and student academic performance. Experience gained by class teachers should make them understand educational policies better.

The presence of more day schools is an advantage to students from poor households in accessing secondary education because of cost implications since in day schools, the students are only required to pay for lunch. According to Mutegi (2016) there is a relationship between family economic well-being and access to secondary schools. He found that children from poor families have lower probabilities of enrolling in boarding secondary schools. This was attributed to cost such as boarding fees, pocket money, transport and uniform which are high in boarding schools. These findings disagree with Koriyow (2018) who found that in Wajir County the numbers of Boarding secondary schools are more than day secondary schools which disadvantages children from poor households from accessing secondary education because of cost implications. For 2013 cohort most schools had retention rates between 50.00% and 79.99%. For 2014 cohort most schools had retention rates between 70.00% and 89.99% while for 2015 cohort most schools had retention rates between 70.00% and 99.99%. It can be noted that retention rates increased over the years. This is because students remained in school because the fund met most of their requirements which otherwise they could have been sent home. With FSE funding more children were not sent home to bring money for repair, to pay support staff, to paint class rooms and to buy text books. They are not sent home to buy exercise books because with FSE policy all this are catered for by the government. Findings of this study agree with findings by Asena, Mukasa and Riechi (2016) who established that FSE policy increased retention rates in Bungoma County.

FSE funding has increased progressively from 2013 such that for 2015 cohort many schools were receiving more money which meant most schools were able to meet requirements for their learners in terms of infrastructure, teaching learning resources, human resource and therefore this would mean that more students were bound to stay in school. The government increased the funding because it realized that having introduced FSE some children were still not going to school because they were paying the difference since it was cost sharing so increasing the amount meant reducing the burden of the parent of paying fees and therefore giving more opportunity to the children to learn. This has been done progressively meaning that the government has realized that from 2013 the more money is given out the lower the dropout, the higher the retention rates and completion rates. With increase in FSE funding, infrastructure can be improved and maintained, there are textbooks and exercise books, there is money to pay support staff and children are catered for when sick by the government. This has made school environment attractive therefore students can remain in school and learn continuously leading to improved academic performance hence increase in transition rates to university. The Kenyan government is spending billions of shillings in the country on secondary education for purposes of retaining students in school, ensuring that they progress and complete secondary education, ensuring that they perform better in examinations. This money is given according to size of school (Republic of Kenya, 2019a). Free Secondary Education funds was revised to Ksh 22,244 per student annually through Government circular No MOE/HQS/3/13/3 of 2018 (M.o.E, 2018). According to government circular No MOE/HQS/3/13/3 of 2020, revised allocation of FSE funding is; tuition(teaching and learning materials) =Ksh 3700/=,text books Ksh 244/=, SMASSE Ksh 400/=, medical Ksh 400/=, activity Ksh 1500/=, NHIF Ksh 1300/=, maintenance and improvement Ksh 8000 /= while other vote heads Ksh 6900/= (Ministry of Education, 2020). Much of the money is allocated on maintenance and improvement to ensure that classrooms, toilets and other physical facilities are in good conditions for conducive learning. FSE fund received by each school for the three cohorts was added together since the government continued to send the money to schools hence both cohorts benefitted from it.

From the Table 10 schools which received more funds have high retention rates while those that received fewer funds have low retention rates. Economies of scale is realized when addition of one more student result to lower average cost in instructional contact hour or their unit service. Schools that have higher enrolment receive more funds therefore can acquire more goods at a lower cost since they are purchasing them in bulk. This means they can be able to acquire more facilities that is, textbooks, exercise books, maintenance of more classrooms, and employment of more workers which in turn increase retention rates. Some factors leading to low retention rates were eliminated by FSE policy. Students whose parents were unable to pay school levies were sent home, those who could not afford dropped out of school. There are other factors that affect retention rates. Sub County Quality Assurance Officer said; ''some of the reasons that affect retention rates are early pregnancy, early marriages, lack of parental guidance, drug abuse, level of education of parents, economic background of the family, hidden costs and domestic violence''. This agrees with findings from interviews with principals. During interviews with the principals one of the principals said; "There is delayed disbursement of FSE funds to schools therefore students have to buy exercise books to supplement those given by the government. Those who are unable stay at home and some eventually drop out of school."

This agrees with the findings by Kipkoech and Kyalo (2010) "titled Challenges facing implementation of Free Primary Education in Kenya where one of the challenges cited by one of the head teachers was delay in disbursement of Free Primary Education funds. These findings agree with Aurela (2011) who observed that socioeconomic gaps were one of the factors that affected retention rates in Japan. Findings agree with Nyabanyaba (2008) who found that in Lesotho the country is facing a lot of challenges when it comes to access and retention of learners. He pointed out that poverty, HIV/AIDs, economic background of the family, Parental level of education were some of the factors which influenced retention of learners in secondary schools. This also agree with findings Organization for Economic Cooperation and Development (2012) that Parents with low socioeconomic find it difficult to sustain their children in school which reduces retention rates. During interviews and focus group discussions it was reported that FSE policy has helped to increase retention rates. All the Sub County Quality Assurance Standards Officer in the two Sub counties believed that FSE Policy had an impact on retention rates in Emuhaya and Vihiga Sub counties as it was one of the objectives of FSE Policy. One of the Sub County Quality Assurance Standards Officer gave this comment; ''after the introduction of FSE policy students from poor families who were unable to afford school levies are in school and can be able to finish the cycle without leaving on the way. During interviews a principal also said; ''though dropout cases are still witnessed in Emuhaya and Vihiga Sub counties many students who would have dropped out of school have survived due to FSE policy." This agrees also with findings from interview with Sub County Quality Assurance Standards Officer where Sub County Quality Assurance Standards Officers said; "Before introduction of FSE policy children were unable to stay in school, they were going to harvest sand, some of them were disappearing to Mumias to cut sugar cane, some went to be maids, herds boy, some went to Kiambu to work in Coffee farms and some went to Kericho to work in Tea farms but when FSE policy was introduced the government is able to cater for their needs therefore cases of child labour have reduced because they have realized its more beneficial to go to school than to be at home ,more students have been attracted to go to school. The constitution of Kenya 2010 also stipulates that it's the responsibility of the parent to ensure children go to school, therefore parents fear if they do not take their children to school they will be arrested. Some teachers could chase students left and right if they have not paid school fees. Some were even caned because they are in school but have not paid school fees which discouraged them and opted to leave school. Now that we have FSE policy students are left with only lunch and uniform to cater for in day schools while those parents who can afford take their children in boarding schools. This has helped to improve retention rates. Citizens also have realized the importance of education because even in the national budget more than a third of the budget goes to education."

Findings of this study concur with World Bank (2005) which found that to achieve high rate of access, retention and completion in developed countries such as Germany, Great Britain and United States of America, attachment has been done on subsidized education system that adequately funds the poor in secondary education. This led to increase in retention and completion in secondary education. It also agrees with Hsieh and Urguilola (2002) who found that in Australia, the Australian government decision to provide subsidized education had positively influenced retention of learners in school. Findings of this study agree with those of Lewin (2008) who found that financing secondary education leads to high retention rates. Similarly in Malawi the introduction of USE made retention rate within secondary cycle improve from 23% to 32% in 2007 (Lewin & Caillods, 2009). This disagree with findings by (UNESCO, 2007) which found that while Uganda introduced USE, parents were still required to pay boarding and medication costs which has made retention rates to be low. Findings also differ with Taban (2010) who found that relatively low number of girls progress up the academic ladder and hence low retention in Tanzania.

The findings of this study agree with Kiplagat (2012) who established that FSE has influenced retention rates positively in Kuresi as students were learning continuously; cases of dropout had declined significantly from 11.34% in 2004 to 4.26% in 2011 and repeater rates reduced by 0.51% in 2011. It also agree with findings by Asena, Mukasa and Riechi (2016) who established that, the enrollment of learners in Bungoma County had increased with that of the boys' students increasing to 533.1034 from 259.9310 while that for girls increased to 412.6316 from 282.5667 prior to the introduction of Free Day Secondary Education in the year 2008 by the government. The dropout rates of learners also dropped to a mean of 4.8 in the year 2013 from 37.0 in the year 2009. The school retention rates are therefore higher than before. Finding of this study also agree with Chepkoech (2018) who found that Tuition Free Secondary Educational Subsidy increased retention rates as indicated by reduced repetition rates. From his findings majority 73.1 percent of the students indicated that the subsidy affected retention rates to a very great extent 6.4 percent to a little extent and 20.5 percent to great extent. Majority of teachers 79.4 percent indicated that the subsidy affected retention rates to a very great extend 3.9 percent to a little extent and 16.7 percent to great extent. Majority of principals 80.4 percent indicated that the subsidy affected retention rates to a very great extent 2.8 percent to a little extent and 16.8 percent to great extent. Findings of this study also agrees with findings of Mwangi (2018) who found that Free Day Secondary Education subsidy increases student retention rates in public secondary schools in Kitui County.

Conclusion

The study established that Free Secondary Education policy enhanced retention rates in public secondary schools. This is because most students who joined the public secondary schools did not drop out mainly because their needs for schooling were met using Free Secondary Education funds which increased retention rates. This means that more of the students who start schooling remain in school. This also implied that FSE was achieving one of its objectives.

Recommendations

The study recommended that:

- Free Secondary Education funds should be increased to enhance retention rates. Furthermore, the disbursement of the funds to schools should be termly to avoid students being sent home for levies as an additional mode of funding their education.
- The Government through Teachers Service Commission should continue employing more teachers

to handle increased enrollment that is motivated by Free Secondary Education policy funding.

- Principals of secondary schools should seek more support from other government agencies like Constituency Development Fund to supplement funds for physical infrastructure so as to improve retention rates.

REFERENCES

Abagi, O., Wagacha, M. and Kimuyu, P. (2001). *Kenya's Strategic Policies for the 21stC Macroeconomic and Sectorial Choices.* Nairobi: Institute of Policy Analysis and Research.

Abagi, O. and Oanda, I. (2014). *Fifty Years of Education Development in Kenya.* Nairobi: Jomo Kenyatta Foundation.

Abbass, A. and Cieslik, M. (2004). Widening Participation in Higher Education: The Impact on Social Inclusion and Economic Regeneration. University of Teesside. England.

Akyeampong, A. (2009). *Review of Secondary Education in Ghana.* Accra: World Bank.

Ampiah, G., Yiboe, T., Kwaa, T. and Aduyeboah, C. (2013). Mapping the Incidence of School Dropout: A Case Study of Communities in Northern Ghana. *Comparative Education*, 45(2): 219-232.

Apiyo, K. & Simatwa, E.M.W. (2012). "Influence of FSE on Girl Child Participation in Education in Mixed Day Secondary School in Siaya, Kenya." Unpublished Maseno University Master of Education Thesis.

Ary, D., Jacobs, L. and Razavieh, A. (1996). *Introduction to Research in Education*, Fort Worth Harcourt: Brace Publishers.

Asankha, P. & Yamano, T. (2016). Impact of Universal Secondary Education Policy on Secondary School Enrollments in Uganda. Unpublished National Graduate Institute for Policy Studies Report, Tokyo, Japan.

Asena, M., Simiyu, A. and Riechi, A. (2016). Relationship between Subsidized Free Day Secondary Education and Retention in Secondary Schools in Bungoma County, Kenya. *Journal of Education Practice Vol. 7.* ISSN 2222-1735(pg. 56).

Asena, M. and Simiyu, A. (2013). Factors Influencing Performance of Pupils on Transition from Lower Primary to Upper Primary in Ekerenyo Division, Nyamira County, Kenya. *Journal of Education Practice* Vol.3.ISSN 2222-1635(67-76).

Aurela, A. (2011). *Transition of Learners through All Levels of Education.* 21423 Street Wart. Japan: Ramjeru Publishers.

Barasa, E.N. (2003). "Analysis of Flow, Trends of Students in Secondary School Education in Funyula Division Busia District, Kenya." Unpublished Maseno University Master of Education Thesis.

Basic Education Report, (2010). *Educational Measurement, Assessment and Public Examination. Report on the National Certificate of Examination Results.* Republic of South Africa: Government Printer.

Bisika, J.J. (2005). *Free Primary Education Challenges for Malawi*, A Paper Presented at National Conference of Education in Lilongwe Malawi, University of Malawi, Rincellar College, Zomba, Malawi.

Botvin, G. J. and Eng, A. (2011).The Efficiency of a Multi Component Approach to the Prevention of Cigarette Smoking. Preventive Medicine, 11:199-211.

Booth, D. and Bruce, F. (2009). Research and Related Practice. Report of Research for the 2009 Ontario Education Symposium.

Bowles, A., Dobson, A., Fisher, R. & McPhail, R. (2011). An Exploratory Investigation into First Year Student Transition to University. In Krause, K., Buckridge, M Grimmer, C. & Purbrick-Illek, S. (Eds.) Research and Development in Higher Education: Reshaping Higher Education, 34: 61 – 71. Gold Coast, Australia.

Borg, W.R. & Gall, M.D. (2007). *Education Research*: *An Introduction*: New York: Longman.

Bowles, A., Dodson, A., Fisher, R. and McPhail, R. (2011). Research and Development in Higher Education, 34:61-71.

Bray, M. and Thumb, R. (2009). *Community Financing of Education: Issues and Policy Implications in Less Developed Countries.* New York: Perganan Press.

Breseid, O. & Cailods, F. (2011). *Trends in Industrialized Countries: Are they Relevant for African Countries?* Paris: International Institute of Educational Planning.

Brown,M. (2009). *Gender Mainstreaming at UNDP, UN.* New York Brussels: European Commission.

Burdens, K.S. & Abbott, B. B. (2008). *Research and Design Methods*. New Delhi: Tat McGraw.

Cameron, D. M. (1997). The Framework for Managing and Financing Post- Secondary Education in Canada. The Forum Papers*, National Forum on Post-Secondary Education in Canada. Institute for Research on Public Policy, Halifax, 1988.*

Chabari, E. B. (2010). "Challenges Facing Effective Implementation of Free Secondary Education in Public Secondary Schools in Kangundo District, Kenya." Unpublished Chuka University College Master of Education Thesis.

Chepkoech, J. L. (2018). "Influence of Tuition Free Secondary Educational Subsidy on Student Participation in Public Secondary schools in Kasarani, Nairobi County, Kenya." Unpublished University of Nairobi. Master of Education Thesis.

Chimombo, J.P.G. (2005). Quality Verses Quantity in Education: Case Studies of Malawi. *International Review of Education*, 51(2-3):155-172.

Cohen, L. M. (2000). *Research Methods in Education*. Rout Ledge, Taylor and Francise-Library. Madison Avenue: New York.

Comboni Missionaries Kenya, (2012). *Turkana Zone Charter Diocese of Lodwar (Dol).*Webmaster: Francisco Carrera.

Combs, D.H. (1968). *World Educational Crisis: A Systems Approach.* New York: Oxford University Press.

Creswell, J.W. (2009). *Research Design Qualitative, Quantitative and Methods Approaches.* California: SAGE Publications.

Dwyer, T., Blizzard, L. & Dean, K. (1996). Physical Activity and Performance in Children. *Nutrition Review,* 54, 4:527-531.

Education for All Global Monitoring Report, (2010). *Reaching the Marginalized: Education for All.* UK: Oxford University Press.

Elifson, K.W., Runyon, R. P. and Haber, A. (1990). *Fundamental of Social Statistics.* New York: McGraw Hill.

Eshiwani, G. (1993). *Education in Kenya since Independence.* Nairobi: East African Education Publishers.

Etsey, Y.K.A., Amedahe, F. K. & Eddah, K. (2005). "Do Private Primary Schools Perform Better than Public Schools in Ghana?" Unpublished Cape Coast University of Educational Foundations Department Paper.

Frankel, J.R. & Wallen, N.E. (2006). *How to Design Evaluate Research in Education* (7th Ed.). New York: McGraw-Hill International.

Gachukia, E. (2007). *Affordable Secondary Education: Report of the Task Force.* Nairobi: Government printer.

Gall, L. P. and Borg, W. R. (1996). *Educational Research. An Introduction.* New York: Longman.

Gay, L. R. (2008). *Educational Research: Competencies for Analysis and Applications (9th Edition).* U.S.A: Prentice Hall.

Gray, B. (2009). *High School Dropout Rate in Major US Cities at Nearly 50 Percent ICFI.* New York City: Oxford University Press.

Gropello, E. (2008). Meeting the Challenges of Secondary Education in Latin America and East Asia. Washington DC: World Bank.

Herring, S. (2009). *Gender and Democracy in CMC.* New York: Academic Press.

Hinton, P. R., Brownlow, C., Mc Murvay, I. and Cozens, B. (2004). *SPPS Explained.* East Sussex, England: Rout ledge, Inc.

Hsieh, C.T. & Urquiola, M. (2003). When Schools Compete, How do they Compete? *An Assessment of Chile's Nationwide School Voucher Program, NBER Working Paper.*

Huebler. T. (2007). Pupil Ratio: Implication for Quality Education in Nigeria Primary Schools. AFRREV IJAG: *An International Journal of Arts and Humanities.* Bahir Dar Ethiopia Vol. 1(1) April 21st, 2018:257-264.

Jaiyeoba, O. A. & Atanda, A.I. (2011). School Quality Factors and Secondary School Students "Achievement in Mathematics in South-Western and North-Central Nigeria." The African Symposium: *An Online Journal of the African Educational Research Network.93Volume11:1 June, 2011.*

Kaimenyi, E. (2015). "Factors Influencing Academic Performance of Students in the KCSE in Imenti North District, Kenya." Unpublished Nairobi University Master of Education in Project Planning and Management Project.

Karagu, M.A., Oanda, O.I. & Sifuna, D.N. (2006). Themes in the Study of the Foundations of Education. Nairobi; Jomo Kenyatta Foundation.

Kasomo, D. (2007). *Research Methods in Humanities and Education*: Eldoret: Zapf Chancery Research Consultants and Publishers.

Kasuma, V. W. (2012). "Girls Completion Rate in Public Mixed Day Secondary Schools in Kirinyaga West District, Kenya." Unpublished Research Project, Kenyatta University.

Kendall, N. (2006). Strengthening Gender and Education Programme in 21st Century. EQUIP 2 Working Paper. Washington D.C: AED.

Kerlinger, F.N. (2009). *Foundations of Behavioral Research 2 nd Edition.* New York: Harcourt Brace College Publishers.

Kerlinger, F.N. (1992). *Foundation of Behavioral Research.* New York: Harcourt Brace College Publishers.

Khamati, M. J. and Nyongesa, W.J. (2013). Factors Influencing Implementation of Free Secondary Education in Mumias District, Kenya. *Journal of Social Science for Policy Implications 1(JUNE)32-47.* Retrieved Online on 23rd September at 2.00 P.M from; *www.aripd.org/jsspi.*

Khan, S.N. & Mustaq, I. (2012). Factors Affecting Students' Academic Performance. *Global Journal of Management and Business Research.* Vol.12. Issue (9) 1.0.

Kimitei, J.W. (2010). "Determinants of Transition Rate to Secondary Education among Primary School Girls in Kenya: A Case of Keiyo District." Unpublished Master of Philosophy Thesis, Moi University.

KIPPRA, (2008). Public Expenditure Tracking of Secondary Education Bursary Fund in Nairobi, Kenya. Retrieved on 24th September 2019 at 7.30 P.M. at; *http://www.ipar.or.ke.*

Kipkoech, L. (2010). "Management Challenges Facing Implementation of Free Primary Education in Kenya." Unpublished Kenyatta University Master of Education Thesis.

Kiplangat, E.K. (2012). "Influence of Free Primary Education Policy on Access, Retention and Completion of Secondary School Students in Kuresoi District, Kenya." Unpublished Master of Education Thesis, Maseno University.

Kothari, C.R. (2008). *Research Methodology. Methods and Techniques, 2nd Edition.* New Delhi: New Age International Publishers.

Kothari, C.R. and Garg, G. (2014). *Research Methodology. Methods and Techniques, 3 rd Edition,* New Delhi: New Age International Publishers.

Koriyow, H. A. (2018). "Impact of Subsidized Fees Program on Student Access to Quality Education in Public Secondary Schools in Wajir County, Kenya." Unpublished PhD in Education Thesis, Nairobi University.

Kuria, E. (2014). "Factors Influencing Academic Performance of Students in Kenya Certificate of Secondary Education Examination in Roysambu Constituency, Kenya." Unpublished Nairobi University Master of Educational Planning Project.

Koul, I. (1992). *Methodology of Educational Research 2 nd Edition.* New Delhi: Vikas Publishing House Development Ltd.

Lewin, K. M. (2007). *Improving Access, Equity and Transitions in Education: Creating Research Agenda.* CREATE Pathways to Access Research Monograph, No. 1. Brighton: University of Sussex.

Lewin, K. M. (2008). *Financing Education in Mauritius: An Analysis of Cost and Internal Efficiency.* Port Louis, Mauritius: Ministry of Education,

Lewin, K. M. (2008). *Strategies for Sustainable Financing of Secondary Education in Sub-Saharan Africa.* Washington D.C: World Bank.

Lisa, H. and Titeca, K. (2015). Impact of Universal Secondary Education Policy on Educational Attainment and Performance in Uganda. National Graduate Institute for Policy Studies, Tokyo, Japan.

Macharia, R.W. (2013). "Impact of Free Secondary Education Policy on Internal Efficiency of Day Schools in Gatanga District, Murang'a County, Kenya." Unpublished M.Ed Thesis, Kenyatta University.

Makokha, S.A. (2016). "Effect of Free Tuition Secondary Education on Access, Completion and Quality of Public

Secondary Schools in Emuhaya Sub County, Kenya." Unpublished Master of Education Thesis, Maseno University.

Malekela, G.C. (1977). "Occupational Expectations of Primary Seven Pupils and their 54 Parents: A Case Study of Nshara, Hai District, Tanzania." Unpublished M.A. Dissertation, University of Dares Salaam.

Mathu, W.N. (2016). "Influence of Free Primary Education on Pupils Retention Rate: The Case of Gatanga District, Muranga County, Kenya." Unpublished Master of Educational Planning Project, Nairobi University.

Mc Burney, D. H. & White, T. L. (2010). *Research Methods.* Wadsworth: Cengage Learning United States of America.

Mualuko, E. (2004). Education for All: a Framework for Addressing the Persisting Illusion for the Kenyan Context. *International Journal of Educational Development 24, 231-240.*

Ministry of Education, (2005a). *Learning Assessment Survey.* Nairobi: Ministry of Education.

Ministry of Education, (2005b). Sessional Paper No. 1 of 2005 on *A Policy Framework for Education, Training and Research : Meeting the Challenges of Education Training and Research in Kenya in the 21 st Century*: Nairobi, Kenya: Republic of Kenya.

Ministry of Education, (2007). *Education Statistical Booklet 2003-2007*. Nairobi: MOE.

Ministry of Education, (2009).*Guidelines on Implementation of Free Secondary Education*. Nairobi: Ministry of Education.

Ministry of Education, (2012a). *Taskforce on the Re-Alignment of the Education Sector to the Constitution of Kenya 2010.*Nairobi: Government Printer.

Ministry of Education, (2014). *Education Statistical Booklet 2003-2008.*Nairobi: MOE.

Ministry of Education, (2018).*Guidelines for Implementation of Free Secondary Education.*Nairobi: Government Printer.

Ministry of Education, (2020). *Guidelines for Implementation of Free Secondary Education.*Nairobi: Government Printer.

Ministry of Education and Ministry of Higher Education Science and Technology, (2012b). *Sessional Paper No. 14 of 2012 on Reforming Education and Training Sector in Kenya.* Nairobi: Republic of Kenya.

Ministry of Education Science and Technology, (2010). *Management of the Primary and Secondary   Education Curriculum.* Nairobi: Unpublished Education Circular.

Ministry of Education, (2003). *Report of the Education Sector Review*. Nairobi: Government Printer.

Muthoki, M. M. (2015). "Home Based Factors Contributing to Dropout of Girls in Mixed Day Secondary Schools in Mtito-Andei Division Kibwezi Sub County Makueni County, Kenya." Unpublished M.ED Project, South Eastern Kenya University

Mudege, S. (2009). ''Examination of Whether Households Characteristics Matter in Schooling Decisions in Urban Kenya." Unpublished M.Ed Thesis, University of Nairobi.

Mudege, N., Ngwae, P. and Ezeh, C. (2009). How Insecurity Impacts on School Attendance and School Dropout Among Urban Slum Children in Nairobi. *International Journal of Conflict and Violence* 2(1): 98-112.

Mugenda, O.M. & Mugenda, A.G. (2003). *Research Methods: Quantitative and Qualitative Approach.* Nairobi: Act Press.

Muhindi, D. (2012). "Challenges Facing the Implementation of Free Day Secondary Education: A Case Study of Nyeri South District, Nyeri County in Kenya." Unpublished Master of Education Thesis, Kenyatta University.

Munda, E. (2010). "Relationship between Selected Educational Facilities and Student Academic Performance in Secondary Schools in Bungoma District, Kenya". Unpublished Master of Education in Project Planning and Management Project. University of Nairobi.

Munyi, J.W. (2015). "Effects of Free Primary Education of the Provision of Quality Education in Public Primary schools in Naivasha District, Kenya." Unpublished Master of Educational Planning Project. University of Nairobi.

Mutahi, N.W. (2012). "Determinants of Educational Wastage in Public secondary schools in Laikipia West Sub County, Laikipia County Kenya." Unpublished Master of Education Project. Kenyatta University.

Mwangi, G. (2018). ''Influence of Educational Subsidies on Completion Rates in Public in Public Day Secondary Schools in Kitui County, Kenya." Unpublished PhD in Educational Planning Thesis. South Eastern University

Mwendwa, K. (2011). "Impact of Free Primary Education on Academic Performance in Public Primary Schools in Mombasa County, Kenya." Unpublished Master of Educational Planning Project, Nairobi University.

Mwiria, K., Wamahiu, D. and Sheila, P. (1995). *Issues of Educational Research in Africa.* Nairobi: East African Educational Publishers.

Nakhumicha, S. M. (2013). "Factors Affecting Academic Performance in Secondary Schools in Kenya. A Case study of Trans-Nzoia West District, Kenya." Unpublished Master of Education Thesis, Moi University.

Nanda, P. K. (2014). India Has the Highest Population of Iliterate Adults. *Live Mint wall and Street Journal.* Available online at 3.00 P.M. on 20th September 2019 at; http//www.livemint.com/politics3yYYDOiLTwDIjAOg5j 9SL/India-has-the-highest-population   of   –illiterate-adults-unesc-html.

Ndegwa, S. (2008). Kenya: Private University Growth of Mixed Blessing. Retrieved October 11, 2019, from http://www.universityworldnews.com/article.php.story at 3.00 p.m.

Ndolo, M. A. (2016). Impact of Free Secondary Education Policy on Access, Primary to Secondary Education Transition Rates and Academic Performance in Mbita and Suba Sub Counties, Kenya. Unpublished PhD in Education Thesis. Maseno University.

Ndolo, M.A. & Simatwa, E.M.W. (2016). Impact of Free Secondary Education Policy on Primary to Secondary Education Transition rate in Kenya: A case Study of Mbita and Suba-sub Counties. *International Research Journal.* Vol. 7(2): 024-040.

Ngau, M.M. (1991). Grade Retention and School Dropout in Kenya Primary School: A Critical Analysis of Access and Equity Issues in Education. Unpublished PhD in Education Dissertation. Kenyatta University.

Ngeno, V. C. (2015). Influence of Free Secondary Policy on Gender Parity, Repetition, Dropout, Wastage and Student's Academic Achievement in Kericho County Kenya. Unpublished PhD in Education Thesis, Maseno University.

Ngeno, V.C. & Simatwa, E.M.W. (2015). Influence of Free Secondary Education Policy on Dropout Rates in Kenya: A case Study of Kericho County. *Greener Journal of Educational Research.* Vol. 5(4): 152-175.

Ngeno, V.C., Simatwa, E.M.W. and Ayodo ,T.M. (2015b). Influence of Free Secondary Education Policy on Repetition Rates in Kenya: A case Study of Kericho County. *Greener Journal of Educational Research.* Vol. 5(3): 57-77.

Ngwacho, G.A., Theodore, M.OA. & Chemwai, B. (2017). Impact of Hidden costs of Free Secondary Education on Student Completion Rate in Kisii County, Kenya Kabarak. *Journal of Research and Innovation Vol.* 4 ISSN 2410-8383ISS.

Ngware, O. and Ezeh, (2009). *What Quality of Education are Children in Urban Schools Receiving? Evidence from Nairobi: APHRC Working Paper No. 39.* Nairobi: APHRC.

Ngwili, E. M. (2014). ''Factors Influencing Student's Completion Rate in Public Day and Boarding Secondary Schools in Kibwezi District, Makueni County Kenya." UnpublishedM.Ed Thesis, University of Nairobi.

Nyabanyaba, T. (2008). *The Evaluation of Free Primary Education in Lesotho* (2002-2006). Maseru: Institute of Education.

Obae, R. N., Cheloti, S. K. and Mwangi, G. (2017). Influence ofFree Day Secondary Education Subsidy on Completion Rates; A case ofPublic Day Secondary Schools in Kitui County, Kenya. *International Journal of Research in Economics and Social* Sciences *Vol. 7 ISSN2249-7382ISS (pg. 112).*

Odumbe, G.A., Simatwa E.M.W & Ayodo, T.M.O. (2015). Factors Influencing Student Academic Performance in Day Secondary Schools in Kenya. A Case study of Migori sub county. Unpublished Master of Education Thesis, Maseno University.

OECD, (2003). Hamburg Background Report for the Attracting Activity, Developing and Retaining Effective Teachers. Retrieved on 15th September 2019 at 9.20 P.M. from; *www.oecd.org/edu/teacherpolicy.*

OECD, (2009). *Schooling for Tomorrow: What Schools for the Future?* Paris: OECD.

OECD, (2010). *Gender Inequality and the Millennium Development Goals: What are the Missing Dimensions?* (231-240). Paris: OECD.

OECD, (2011). *Education at a Glance 2011: OECD Indicators.* Paris: OECD.

OECD, (2012). *Equity and Quality of Education Supporting The Disadvantaged Students and Schools.* Paris: OECD.

Ogola, K. (2013). "Factors Influencing Transition rates from Public Primary Schools to Secondary Schools in Rangwe, Kenya." Unpublished M.Ed Thesis, University of Nairobi.

Ohba, A. (2009). *Does Free Secondary Education Enable the Poor to Gain Access?* A study from Rural Kenya, CREATE Pathways to Access, Research Monograph No 21.

Oliver, S., Kikechi, R.W. and Chepkwony, S.M. (2012). Influence of Free Primary Education Policy on Kenya Certificate of Primary Education Performance. An Empirical Study of Mt. Elgon Sub County Primary Schools. *Asian Journal of Education.* Vol. 2(1):2012.

Oliver, S., Kikechi, R.W. and Geoffrey, M. (2011). Factors Affecting Transition Rates from Primary to Secondary School in Taita Taveta District, Kenya. *Journal of Education and Research.* Vol. 5 (2):2011.

Omandi, K. (2015). ''Contribution of Free Day Secondary Education to Promote Students' Completion Rates in Public Secondary Schools in Mvita Sub County, Kenya."

Unpublished Master of Education Project, University of Nairobi.

Orodho, J. A. (2003). Regional Inequalities in Education, Population and Poverty Patterns in Kenya. *Emerging Issues and Policy Directions, Population of Kenya. Journal.*
Educational and *Social Sciences.*

Orodho, J. A. (2009). *Elements of Education and Social Science Research Methods.* Maseno: Kenezja Publishers.

Osodo, K.P. (2010). "Socio-economic Factors Hindering Promotion of Secondary Education in Siaya County, Kenya." Unpublished Master of Education Thesis, Maseno University.

Owino, K.O. (2014). "Influence of Free Primary Education Policy on Pupil Participation by Gender in Public Primary Schools in Rongo Sub County, Kenya." Unpublished Master of Education Thesis, Maseno University.

Psacharopoulos, G. &Woodhall, M. (1985). *Education for Development*: *An Analysis of Investment Choice.* London: Oxford University Press.

Psacharopoulos, G. and Woodhall, M. (2006). *Education for Development: An Analysis of Investment Choices.* New York: Oxford University Press.

Republic ofKenya, (2004). *Educational Sector Strategic Plan and Implementation Practices:* 2003-2007. Nairobi: Ministry of Education, Science and Technology.

Republic of Kenya, (2005). Session Paper No. 1 of2005 on *a Policy Frame Work for Education, Training and Research.* Nairobi: Government Printer.

Republic of Kenya, (2008). *Free Secondary Education Programme.* Nairobi: Government Printer.

Republic of Kenya, (2010). *Emuhaya Strategic Development Plan.* Nairobi: Government Printer.

Republic of Kenya, (2011). *Report on the Kenya National Population Census for 2009.* Nairobi: Government Printer.

Republic ofKenya, (2012a). *Task Force on the Re-Alignment of the Education Sector to the Constitution of Kenya 2010.* Nairobi: Government Printer.

Republic of Kenya, (2012b). Session Paper No. 14 of2012 *on a Policy Framework for Education, Training and Research.* Nairobi: Government Printer.

Republic of Kenya, (2012c). Ministry of Education Science and Technology. Free Primary Education Funds– Breakdown to Public Schools, 26th Jan 2012: Government Printer.

Republic of Kenya, (2013). *Economic Survey.* Nairobi: Government Printer.

Republic of Kenya, (2014). *Basic Education Statistical Booklet.* Nairobi: Government Printer.

Republic of Kenya, (2015). Economic *Survey.* Nairobi: Government Printer.

Republic of Kenya, (2016). Economic *Survey.* Nairobi: Government Printer.

Republic of Kenya, (2017). Economic *Survey.* Nairobi: Government Printer.

Republic of Kenya, (2018). Economic *Survey.* Nairobi: Government Printer.

Republic of Kenya, (2019a). Economic *Survey.* Nairobi: Government Printer.

Republic ofKenya, (2019b). Session Paper No 1 of 2019 *on a Policy Framework for Reforming Education and Sustainable Development in Kenya.* Nairobi: Government Printer.

Rolleston, C. (2009). *The Determination of Exclusion: Evidence from Ghana Living Standard Survey.* New York: Oxford University Press

Rono, K., Onderi, H. and Awino. J. (2013). Perceptions of Causes of Poor Academic Performance amongst Selected Secondary Schools in Kericho Sub County. Implications for School Management. Proceedings of the Fourth Conference of EMSK 25th -27th September 2013 at Kabarak University.

Sisungo, Z. W., Buhere, P. and Sang, A.K. (2011). Innovation in Secondary School Management Practice for Efficiency and Development. *Kenya Journal of Education Planning, Economics and Management.* Vol. 3: 1-10.

Shahinsha, B. K. (2010). Problems in Universalization of Primary Education in Pakistan. *Pakistan Atomic Energy Commission. Journal of 2010 Vol. 4(2), 147-155.*

Sifuna, D.N. and Oanda, O.I. (2014). *Historical and Contemporary Trends in The Development of Education in Kenya.* Nairobi: Jomo Kenyatta Foundation.

Simmons, J. & Leigh, A. (1983). *Factors Which Promote School Achievement in Developing Countries: A Review of the Research in The Education Dilemma.* England: Pergamon Press Ltd.

South African Basic Education, (2011). *Report on Dropout and Learner Retention Strategy Department of Basic Education.* Portfolio on Committee on Education. Republic of South Africa. Retrieved on 30th September 2019 at 4.00 P.M. from; *http://www.edducation.gov.za/LinkClick.aspx?fileticket=jcSsYrHcME%3D&tabid=358&mid=1261.*

State University. (2002). Criticism of Public Education – Inequality of Highly Bureaucratic Systems, Achievement-Based Outcomes, School Choice, Reform and After-Reform. Retrieved on 20th September 2019 at 2.30 P.M. from; *http://education.stateuniversity.com?pages/2341PublicEducatioCriticism.html#ixzz21kp31psL.*

Steer, L. and Geraldine, B. (2010). *What Drives Donor Financing of Basic Education?* London: Overseas Development Institute.

Sullivan, E,. & Rassel, G.R. (2009). *Research Methods for Public Administrators.* London: Longman.

Suryahad, A. & Sambodho, P. (2013). *Assessment of Policies to Improve Teacher Quality and Reduce Teacher Absenteeism.* Jakarta: The SMERU Research Institute.

Taban, L. (2010). *The Role of Transition of Girls from Primary Level to Secondary Level and Beyond.* Tanzania: University of Dar-e salaam.

Tadaro, N. & Smith, S.C. (2006). *Economic Development 5th Edition.* New York: Macmillan Press.

Toldson, I. (2008). *Breaking Barriers: Plotting The Path to Academic Success for School Age African American Males.* Congressional Black Caucus: Foundation Inc. Retrieved on 28th September 2019 at 8.30 A.M. from: *http://cbcfinc.org/org/image/pdf/breaking barriers P.D.F.*

UNESCO, (2006). *Challenges of Implementing FPE in Kenya.* Paris: UNESCO.

UNESCO, (2007). *Education for All by 2015. Will We Make it?* Oxford: Oxford University Press.

UNESCO, (2008). *Education for All by 2015: Will we make it?* Paris: Oxford University Press.

UNESCO, (2009a). *Education Indicators Technical Guide Lines.* Paris: UNESCO.

UNESCO, (2009b). *Overcoming Inequalities. Why Governance Matters, Regional Overview: Sub-Saharan Africa.* Paris: International Institute of Education Planning/ UNESCO.

UNESCO, (2010). *Education For All Global Monitoring Report 2010-Education for All.* Paris: UNESCO.

UNESCO, (2011). *Global Education Digest 2011: Comparing Education Statistics Across The World.* Montreal, Canada: UNESCO.

UNESCO, (2012). Measuring Education Quality in Africa. UNESCO. World Education Blog: Paris: UNESCO.

UNESCO, (2014). *Sustainable Development begin with Education.* Paris: UNESCO.

UNHRO, (2012). *Reaching The World: Education for All.* Oxford and United Kingdom: Oxford University Press.

UNICEF, (2001). *We the Children: End Decade Review of the Follow-up to The World Summit for Children.* New York: UNICEF.

UNICEF, (2011). Gender Equality in Secondary Education. Retrieved on 22nd February 2018 at 8.00 P.M. from; *http://www.unicef.org/educationindex*

UNICEF Innocent Research Centre, (2001). *Early Marriage Child Spouses.* Florence, Italy.

Waseka, L.E. (2017). "Influence of Selected Factors on Student Academic Performance in Secondary Education in Kakamega County Kenya." Unpublished PhD in Education Thesis, Maseno University.

World Bank, (2000). *Kenya Free Primary Education Support Project, Vol. 1.Project Appraisal.* World Bank: Washington DC.

World Bank, (2001). Africa Regional Office, Tanzania-Primary Education Development Program, Report No. PID10068.

World Bank, (2002). *Education and Training in Madagascar: Towards A Policy Agenda for Economic Growth and Poverty Reduction.* Washington D.C: World Bank.

World Bank, (2003). *Lifelong Learning in The Global Knowledge Economy: Challenges for Developing Countries.* Washington D.C: World Bank.

World Bank, (2005). *Expanding Opportunities and Building Competencies for Young People: A New Agenda for Secondary Education.* Washington DC: World Bank

World Bank, (2008). *World Development Indicators 2008-09.* Washington DC: World Bank.

World Bank, (2011). *World Bank Support to Education since 2001.* Washington DC and USA: World Bank.

Yamane, T. (1967). *Statistics: An Introductory Analysis, 2nd Ed.* New York: Harper and Row.

****