EDUCATIONAL SUBSIDIES AND STUDENTS' PARTICIPATION RATES IN EDUCATION IN PUBLIC SECONDARY SCHOOLS IN MAKUENI COUNTY, KENYA

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A Thesis Submitted in Partial Fulfilment of the Requirements for the Degree of Doctor of Philosophy in Educational Economics and Planning of South Eastern Kenya University

2025

DECLARATION

I understand that plagiarism is an offence and I therefore declare that this research thesis is my original work and has not been presented to any other institution for any other award.

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ACKNOWLEDGEMENT

I'm profoundly indebted by the gratitude, support, assistance and goodwill accorded to me by various people during the writing of this Thesis. I deeply appreciate the immense contribution of my supervisors; Late Dr. Redempta Kiilu, Dr Gideon Kasivu and Dr Joseph Nzomoi for their expert and professional guidance which has seen me learn a lot from them in the world of academia.

To all lecturers who taught me in the Department of Educational Administration and Planning you made the saying that; *knowledge, like a tree grows,* make sense to me. Your contribution to my pursuit for knowledge was immense. To the Principals, Deputy Principals and Sub-County Directors of Education in Makueni County, who were my respondents; you accorded me cooperation that was beyond expectation.

I wish to most sincerely thank my wife, Stellamaris Mumina for the unwavering moral support and continuous encouragement since inception of this programme to its conclusion. You were always there for me every step along the way. To my children Caroline, Nelson and Oprah, my love to you is beyond measure.

Lastly and most importantly, I wish to thank the Almighty God through whom all things are possible.

DEDICATION

This research work is dedicated to my parents Elizabeth Jimmy and late Jimmy Muinde who put in me a spirited urge to pursue the highest level of education.

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ABBREVIATIONS AND ACRONYMS

ALRC	**:**	Australian Law Reform Commission
CCT	**:**	Conditional Cash Transfers
DPs	**:**	Development Partners
EFA	**:**	Education For All
FDSE	**:**	Free Day Secondary Education
FQSE	**:**	Free Quality Secondary Education
GDP	**:**	Gross Domestic Product
GPE	**:**	Global Partnership for Education
KCSE	**:**	Kenya Certificate of Secondary Education
KIPPRA	**:**	Kenya Institute of Public Policy Research and Analysis
LAC	**:**	Latin America and Carribean Countries
MOE	**:**	Ministry of Education
NACOSTI	**:**	National Commission of Science Technology and Innovation
NESP	**:**	National Education Sector Plan
NGAAF	**:**	National Government Affirmative Action Fund
OECD	**:**	Organization of Economic Cooperation and Development
SDGs	**:**	Sustainable Development Goals
SPSS	**:**	Statistical Package for Social Sciences
SSA	**:**	Sub-Saharan Africa
TLMs	**:**	Teaching and Learning Materials
UIS	**:**	UNESCO Institute of Statistics
UNESCO	**:**	United Nations Educational Scientific and Cultural Organization
UNICEF	**:**	United Nations Children's Fund

DEFINITION OF TERMS

Bursary:	Refers to an award made by an institution or government to a student or group of students who have met a set award criteria from the school to help them pay education fees.
Educational subsidies:	Refers to a grant of financial assistance given by the national government in form of capitation grants to public secondary school students to cushion them against high costs of secondary school education.
FDSE:	Refers to a form of capitation grant by the government that is uniformly given to all learners in public secondary schools.
Non-State agencies:	Refers to financiers of education that are not affiliated to either national or county governments.
Participation rates:	Refers to proportion of learners enrolling in secondary school and attending school regularlyupto completion of the cycle.
Teaching and learning Materials:	Refers to the range of infrastructural resources and lesson materials that teachers can use to teach.

ABSTRACT

Governments around the world agree that, the ability to provide quality education for all and to respond to new priorities depends on the availability of adequate funding in education. Financing of education is the greatest enabler of learners to participate in education and flow through education system from entry to exit. The purpose of this study was to investigate the influence of educational subsidies on participation rates in public secondary schools in Makueni County, Kenya. The specific objectives of the study were to establish the influence of Free Day Secondary Education (FDSE) capitation grants, government bursary funds, financing by non-state agencies and provision of teaching and learning materials by the government on participation rates in public secondary schools in Makueni County, Kenya. The researcher formulated four null hypotheses stating: There is no statistically significant relationship between FDSE capitation grants, government bursary funds, education financing by non-state agencies and provision of teaching and learning materials by the government and participation rates in public secondary schools in Makueni County, Kenya. The study was anchored on the Classical Liberal Theory by Rousseau. The study adopted a descriptive survey design. The study targeted all 384 schools, all 384 Principals, 384 Deputy Principals and 9 Sub County Directors of Education in Makueni County. Out of the 384 schools, the study sampled 196 schools' principals and deputy principals through stratified, simple random sampling. Data collection instruments included questionnaires for Principals, Deputies and interview schedule for Sub-county Directors of Education. The instruments were ascertained through piloting and by research experts to ensure content validity while reliability was achieved through piloting and testing reliability. Data was analyzed by use of SPSS version 22. Descriptive statistics such as frequencies, percentages, means and standard deviations and inferential statistics were used to analyze the quantitative data. Qualitative data was analyzed through content analysis and the responses presented in narratives, tables and figures. The results revealed that there was statistically significant relationship between FDSE capitation grants, government bursary funds, education financing by non-state agencies and provision of teaching and learning materials by the government on participation rates in public secondary schools in Makueni County. This was at r values of 0.67,0.68, 0.63, and 0.59 respectively which were all positive and significant with values of 0.014, 0.015, 0.019, and 0.022 respectively. The study concluded that FDSE capitation grants, government bursary funds, financing by non-state agencies and provision of teaching and learning materials by the government all influence students' participation rates in public secondary schools in Makueni county, Kenya. And that, education subsidies influence students' participation rates in the study locale. The results indicated that 64% of the variation in the participation of students in schooling in public secondary schools in Makueni County could be explained by provision of education subsidies in financing education. The study recommends that, the government should continue providing and diversifying educational subsidies, schools should come up with income generating activities whose profits can be used to give bursaries to deserving students. Further, schools should utilize the available resources cost-effectively.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background to the Study

Education is a dependable mechanism to improve people's lives through the acquisition of knowledge, skills and desirable attitudes. According to Sahlberg (2007), secondary education is important in the 21st century education systems for it serves as an extended platform for all young people to equip them with abilities to further develop their knowledge and skills that are needed in civic society and the knowledge economy. It further provides many young people with requisite qualifications for the labour market and further learning (Kamal & Joel, 2014). This means that, once denied secondary educational opportunities, children have little chance of enhancing their livelihoods.

Governments around the world are in agreement that, the ability to provide quality education for all and to respond to new priorities depends on the availability of adequate funding for education (OECD, 2016). Accordingly, it is imperative to ensure that children are receiving equal educational opportunities, regardless of circumstances out of their control such as their socioeconomic status, ethnicity, geographical location, the school they attend, or the social and economic context of the country (Demeuse, Frandiji,Greger and Rochex ,2012). Research in the United States shows that finance reforms on provision of resources in low-income schools reduced achievement gaps between highly and lowly resource endowed school districts (Lafortune, Rothstein & Schanzenbach, 2018). This makes it necessary to subsidize education so as to ensure that all citizens participate in education irrespective of the economic and socio-cultural barriers they may be facing.

A subsidy is aid often granted by a government to support critical parts of the economy that are thought to be vulnerable to external forces (Tarver, 2022). Education subsidies can either be from the demand side or from the supply side. Subsidies from the supply side are implemented to the supplier to enable the production of more goods and services. Tarver further notes that, this increases the overall supply of that good or service, which increases the quantity demanded by lowering the price. In education, the government does this by

paying teachers, construction of classrooms and other infrastructure that support the provision of education services as well as incentivizing private sector to invest in the education sector. The demand side includes support to learners by government through payment of fees via education bursaries, funds for free learning, CDF bursary schemes, and other aspects of facilitation by government for learners to increase their quest for education. These facilitative acts by government increase enrolment and participation rates in education. Non-state actors also subsidize education to complement government's effort.

Participation is the act of being engaged in something. Participation rate in education is a percentage of the number of students of a specific age enrolled in educational institutions at all levels of education to the population of the same age (UNESCO,2021). Participation rate is indicated by attendance ratios and enrollment ratios as they both indicate the number of pupils participating in the school system as a proportion of the size of the overall population (World Bank, 2006). School attendance by students has to be regular if learners are to achieve the desired learning outcomes. According to Glasure (2002), there is a positive correlation between days absent and academic performance. Financial constraints is key among factors that contribute to absenteeism therefore educational subsidies have been rooted as a way of alleviating the problem of poor or non-participation in education.

A study done in Germany contained in a UNICEF publication, *The Investment Case for Education and Equity* notes that, poverty has been touted as a barrier to education access, and thus reducing education-related costs for households is an essential component of policies aiming to improve education participation (UNICEF, 2015) .Subsidizing education by the government shows its commitment towards the educational system, as a guarantee of free and quality education (Qutb, 2016). This government expenditure on subsidizing education according to Schaffner (2014), is premised on the concrete evidence on the positive impact education has on individuals, families and nations, both in terms of national income, economic growth and poverty reduction and in human development outcomes such as health, fertility, women's empowerment, risk management, individual and community resilience, civic engagement and increased tolerance. This will in effect cause higher productivity in terms of increased earnings and more participation by citizens

in labour force hence reducing foreign dominance in the economy. Ultimately, these benefits will positively influence higher economic growth (Michaelowa, 2000). The current study set out to investigate whether education subsidies influence on learners' participation in the education system.

There has been a sustained global focus on improving access to and participation in education as evidenced in increase in domestic public expenditure on education. However, despite this, 60 million children in developing countries are out of school meaning that these investments have not translated to full participation in education (UNESCO, 2015a). In Botswana, according to Plank (2007) school fees and other direct costs that households must content with pose a significant obstacle to enrolment and subsequent participation in education, for the poorest and most vulnerable children. Subsdising or abolishing school fees therefore invariably make it easier and less costly for these children to enroll and fully participate in schooling. The same case scenario seems to replicate the Kenyan landscape, thus the current study sought to establish the influence of education subsidies on students' participation in education.

In Cape Verde 80% of students attend secondary school while the remainder 20% don't fully participate in secondary education and therefore don't complete school (United Nations Children's Fund, 2019). The UNICEF report notes that, a challenge remains with regard to hidden or indirect costs of education that although Secondary Education is free and compulsory, a myriad of extra costs, including transportation, meals, or particular school material, is significant for low-income families. This in essence potents an inequality in access to quality education for low-income families as shown in the gap in participation rates. This gap in completion rates shows challenges in participation rates in secondary education that emanate from inability to alleviate the poor from the impact of costs of education. It is estimated that the financing gap for delivering good quality universal education from pre-school to secondary education by 2030 in developing countries will be $ 10.6 billion which is four times what is provided by governments and official donors (UNESCO, 2015b). According to Steer, Julia, Emily and Michael (2015), in an effort to close this financing and delivery gap that seems to prevent participation in

education, non -state actors, mainly religious and charitable organizations and private foundations are stepping in to subsidize education.

Subsidies in education come in many forms. One major type of subsidy is capitation grants. These are equal allocations from the government to learners in public schools aimed at cushioning households from the high costs of education and therefore they have a positive bearing in improving students' participation in education (Georges, 2015). Education subsidies by governments in Latin America and the Caribbean (LAC) have increased significantly over the last few decades from 3% in the 1990s to over 5% of the GDP in 2018 (OECD, 2017). Through these grants, schools have invested in infrastructure, materials for learning, school meal programs, technology and extended school day programs (CEPAL, 2015) . As a result, data from the Economic Commission for Latin America and the Caribbean (CEPAL.2015) show that the region's secondary school completion rate has increased ten per centage points between 1997 and 2014.From the foregoing it can be concluded that increase in government capitation grants have contributed to increased participation rates in secondary education.

Bursary schemes run by governments are other forms of subsidies. In bursary schemes, the aim is to augment the capitation grants allocated to students by the government. Bursaries address access and equity issues since they target students from disadvantaged backgrounds (Oketch, Gogo & Sika 2020). A critique on the Government of Ghana subsidies at the Senior High School by Essuman, (2018) notes that, a uniform fee-free funding policy adopted by the government will include a number of students who don't need government support, instead the researcher rooted for a selective fee waiver approach inform of targeted bursary schemes so as to promote equity. These bursaries ensure that students from less economically endowed backgrounds fully participate in secondary school education (NOVOC, 2009). It can be noted therefore that, since bursaries cater for part of the education cost that would have been borne by households, they are subsidies in education and by targeting the vulnerable in the society, they enhance participation in education.

Non state actors in the form of NGOS, CBOS, Banks, benevolent organizations and foundations provide other forms of education subsidy. They are defined as individuals or organization that have significant influence but are not allied to any particular country or state (UNESCO,2021). Carla (2022) lists top nine charitable organizations that fight for education globally as; Save the Children, Care, Plan International, Their world, United World Schools, World Education, Educate Girls, Asha for Education and Childhood Education International. They are justified to finance education because according to UNESCO (2015b), the financing gap for delivering good quality education in developing countries will be $10.6 billion between 2015 and 2030. This is four times the level currently provided by official donors, therefore this calls for non-state actors to chip in. In Kenya several non-state actors such as the Equity Group, Mastercard Foundation, KCB Foundation and other partners run scholarships to support secondary education for top-performing children from poor backgrounds. For instance, since inception in 2010, Equity Group's wings to fly scholarships have benefitted more than 15,000 students and projects to offer scholarships worth in excess of Sh 1.16 billion annually (Equity Group Foundation, 2020). These initiatives offer comprehensive support for learners during their four years of education thus guaranteeing full participation in education to the beneficiaries.

An important subsidy in the education sector include teaching and learning materials (TLMs). They imply the resources that a teacher may use in teaching and learning situations to help achieve desired learning objectives (Lewis, 2018). Unavailability and poor quality of teaching and learning materials according to Educate a Child program EAC (2022) can be barriers to a quality education because if the content delivered by a school system is not of high quality, households get demotivated to send their children to school. Such materials include blackboards and chalk, textbooks, teacher support materials, e-content, student workbooks, and supplementary learning aids. Globally, as noted by a World Bank report (2010), e-based learning especially in developing countries and transitional economies have proved to be very expensive and yet fundamental to quality education. In Ethiopia and Uganda, due to poor quality and high cost of teaching and learning materials coupled with irregular, inaccurate and ineffective book distribution, Development Partners (DPs) have opted for sole source of text book supply so as to uphold

the crucial role this subsidy plays in provision of quality education (DFID, 2007). In Kenya the government provides textbooks for each student for every subject as a way of alleviating the burden of buying textbooks on households.

The Sustainable Development Goal number four (SDG4) advocates for inclusive and equitable quality education and promote lifelong learning opportunities for all. Targets 4.1 provides that by 2030, learner should be able to complete free, equitable and quality secondary education which should be publicly-funded. According to UNESCO (2021) it is the rationale of SDGs that has seen many countries around the globe subsidizing education and being keen on the provision of equitable quality education that seeks to have full participation of learners enrolled. Globally, in 2019,91 Million and 137 Million children were out of lower and upper secondary school respectively (UNESCO,2021). This is despite the ambitious targets set by the SDG 4 in 2015 to achieve Universal Secondary Education by 2030 and the progress made so far to hit the target.

In Singapore, the government continues to make significant public investment in subsidizing education (Ho, 2021). For instance, in 2019, according to (MOE, 2022) the Ministry of Education spent close to $10.89 billion, amounting to over 16 percent of annual government expenditure in education with $5.53 billion going towards subsidies for students, this exceeded expenditure of all other ministries besides Defense. These subsidies are allocated through the Financial Assistance Scheme (FAS) in which students can apply for full-fee waivers, free uniforms, textbooks and transport subsidies (Chiong, 2022). By offering these subsidies the government made it a criminal for parents to ensure their regular attendance of their children in school thus bolstering participation in education. According to Compulsory Education Act, (2000) the key reason for the heavy investment anchored in legislation is a strong belief in the purpose of education as a form of social investment that raises the human capital of individuals and the nation. Through these subsidies, Singapore government has made high-quality public education available to all (Ng, 2017). This implies that subsidizing education is an worth undertaking that countries should prioritise for sustainable development.

In Sub Saharan Africa, between 2000-05 and 2012-17, the average share of the public budget spent on secondary education increased from 27.1% to 33% (UNESCO,2021). Much of this increase in public expenditure goes to offering educational subsidies. Despite this increase, children who transition into secondary schools, face challenges of participation, retention and completion of the cycle (UNESCO,2021). In Malawi, for example, only well-equipped boarding secondary schools have higher rates of retention and quality learning outcomes compared to those community secondary schools which are largely attended by children from poor households (De Hoop, 2010).

In East Africa, for instance in Tanzania, even after tuition-free secondary education was introduced, many students continue to pay for their secondary education through out-of-pocket expenses. These expenses are in many ways prohibitive because households are estimated to contribute approximately three-quarters as the government at the secondary school level. This financial obligation is out of reach for the poorest households, this has an adverse effect of making them to either fail to enroll in school, have irregular school attendance which is a parameter of poor participation in education or even drop out of the school system (UNESCO-UIS, 2016). According to an education report by HakiElimu (2017), cost barriers to secondary education are still present for the poorest students in spite of the abolition of secondary school fees. These costs include development levies, lunch fee, transport costs, uniform etc. The import of this case scenario adversely affects students' participation in secondary education locking them out of the benefits of education thereby disadvantaging them due to their socio-economic background.

Kenya is signatory to international conventions and regional commitments related to education, such as the Education for All (EFA) goals and Sustainable Development Goals (SDGs), among others. To show commitment to these treaties, the government has anchored the right to education in the constitution in articles 43(1) (f) 53(1) (b) and 55 (a) and in the Basic Education Act (2013) that guarantees the right of every child to free and compulsory basic education. As a means to achieving these goals the Government of Kenya continues to invest heavily in the education sector, committing about 4.3% of GDP to the

sector (KNBS, 2024). By this allocation, education receives the lions' share of Kenya's budget.

The government shows commitment to these goals by subsidizing secondary education through capitation grants per student of Ksh 22,244 per annum in all public secondary schools, giving bursaries through the National Government Constituency Development Fund Bursary Scheme and provision of textbooks. However, despite provision of these subsidies, non-participation is still prevalent in public secondary schools. For instance, a study conducted by Mwangi (2018) on the influence of educational subsidies on completion rates in public day secondary schools in Kitui County, Kenya established that, 27.4 % of the students who had enrolled in Form one 2009 did not complete secondary school education in 2010 as stipulated. A Similar study conducted by Miako (2012), in Nyandarua County on school levies and their effects on access and retention since the introduction of the free day secondary education programme, found out that many parents were unable to bear education costs, leading to low retention rates. The above studies did not address participation rates. Instead they addressed completion rate and retention rate respectively.

Table 1.1 Flow of Students Through the Four Year Cycle in Makueni County

Year	Form 1	Form 2 (Decline %)	Form 3 (Decline %)	From 4 (Decline %)
2014	25,431			
2015	25,782	25,060 (1.4%)		
2016	25,355	25,322 (1.7%)	23,615 (5.7%)	
2017	26,003	25,276 (0.3%)	23,825 (5.9%)	21,707 (8.07)
2018	29,031	25,795 (0.7%)	24,644 (2.5%)	23,081 (3.1%)
2019		28,714 (1.1%)	25,728 (0.2%)	24,267 (1.5 %)
2020			27,85 (3.0%)	24,528 (4.6%)
2021				27,132 (2.6%)

Source: Makueni County Education Office (2022)

In Makueni county non participation in secondary cycle is rife. Data available in Makueni County Education Office as shown in Table 1.1, reveals that, there is a consistent decline in enrollment in the subsequent grade as students transition from one grade to another grade in the subsequent year. Overall, 14.2 percent, 10.4 percent, 4.29 percent, 5.67 percent and 6.54 percent of students who enrolled in form one in 2014,2015,2016,2017 and 2018 respectively did not fully participate in education and therefore did not complete form four within the stipulated time period.

1.2 Statement of the Problem

Free Day Secondary Education (FDSE) subsidy policy in Kenya was introduced in 2008 with a capitation grant of Ksh. 10,265 per student, this was revised to Ksh. 12,870 per student in 2015 and later to Ksh 22.244 in 2018 (Ministry of Education, 2018). To fund this policy initiative, the government has continued to allocate a lot of money to the education sector. In 2023/2024 financial year, the education sector received the largest share of the government expenditure, with the government increasing its allocation to the sector by 15.5% to Kshs 628.6 Billion from Kshs 544.4 Billion in 2022/2023 financial year.

The allocation represented 4.3% of the GDP, up from 4.0% of GDP in FY'2022/2023 and 27.4% of the planned national expenditure. Out of this allocation, Ksh. 65.4 Billion or 10.4 % was for FDSE capitation grants for the basic education programme which comprises Ksh.22,244 for free day secondary school education programme per student. According to Republic of Kenya (2023), the impact of this policy has been impressive, for instance, during the period under review, the Net Enrollment Rate for secondary education level increased by 12.1% partly due to the free day secondary school initiative.

Despite this remarkable improvement in enrollment rates, the retention rates of these students in school over their schooling life has fallen (Momanyi & Ndung'u, 2019). The main hindrance to regular school attendance, which eventually contributes to non-participation in education is cost borne by households which is estimated at 37% of the total cost of secondary school education (Ministry of Education ,2018). The Kenya Continuous Household Survey (2022) outlines that the overall national poverty was 38.6% in 2022. Also, it indicates that 40.3% of children live in a poor household, while 30.5% of the children aged 0-17 years were food poor. According to Republic of Kenya (2023) this can deter families from affording education related expenses like school fees, uniforms, textbooks, and transportation. Some learners from low-income families may be forced to forego education. For instance, according to Ministry of Education (2018), secondary completion in North Eastern and Coast regions is about 3 times less than in Central and Nairobi and in the North Eastern and Coast regions, more than 7 out of 10 students do not attend up to the end of secondary education.

From the background of the study, a decline in participation rates in public secondary schools in Makueni County from 2016 to 2021 has been witnessed. For instance, 4.29% of the students enrolled in form one in 2016, did not complete form four in 2019. Similarly, 5.67% of those enrolled in form one in 2017 did not complete secondary education in 2020. This trend has been on the rise since 6.54% of those enrolled in form one in 2018 did not complete school in 2021 (Ministry of Education,2022). Non completion of an education cycle shows low participation in education despite the government and other non-state actors committing a lot of funds in subsidizing secondary school education. Further, a spot

check in Makueni County Education Offices shows that there is no documented study on how educational subsidies have really impacted on participation rates in public secondary schools. The current study therefore set out to address these gaps by looking into educational subsidies and participation rates in public secondary schools in Makueni County, Kenya.

1.3 General Objective of the Study

The general objective of the study was to investigate the influence of educational subsidies on participation rates in public secondary schools in Makueni County, Kenya.

1.3.1 Specific Objectives

The specific objectives of the study were to;

i. Determine the influence of Free Day Secondary Education (FDSE) capitation grants on participation rates in public secondary schools in Makueni County.
ii. Establish the influence of government bursary funds on participation rates in public secondary schools in Makueni County.
iii. Determine the influence of education financing by non-state agencies on participation rates in public secondary schools in Makueni County.
iv. Establish the influence of provision of teaching and learning materials by the government on participation rates in public secondary schools in Makueni County.

1.4 Research Hypotheses

This study was addressed by the following hypotheses:

H_{01} : There is no statistically significant relationship between Free Day Secondary Education (FDSE) capitation grants and participation rates in public secondary schools in Makueni County, Kenya.

H_{02}: There is no statistically significant relationship between government bursary funds and participation rates in public secondary schools in Makueni County, Kenya.

H_{03}: There is no statistically significant relationship between education financing by non-state agencies and participation rates in public secondary schools in Makueni County, Kenya.

H_{04}: There is no statistically significant relationship between provision of teaching and learning materials by the government and participation rates in public secondary schools in Makueni County, Kenya.

1.5 Significance of the Study

The study was significant to the Ministry of Education as it provided information on the impact of educational subsidies on participation rates in education in public secondary schools. The study made a raft of proposals to bursary awarding institutions like the NG-CDF to try as much as possible to embrace a targeted awarding policy so that only the needy get allocation. It also made policy suggestions to the government on ways of enhancing participation in education in light of the subsidized education. The study made suggestions to secondary school Boards of Management to come up with financial safety nets for the poor and vulnerable learners that will cushion them against the high cost of education thus enhancing their participation rates in education. To charitable organizations, the study shed light on the impact of their philanthropy in supporting needy students. The study also provided a basis for the corporate world to engage in corporate social responsibility in funding vulnerable students. Lastly, the study was important to researchers and academicians as it formed a basis for future research.

1.6 Limitations of the Study

Limitations of any particular study concern potential weaknesses that are usually out of the researcher's control but since they affect the study design, results and ultimately, conclusions, they should be acknowledged (Hackshaw, 2008). The current study envisaged the following limitations; Principals and Deputy Principals may fail to give honest responses for fear of victimization by Education Officials. To mitigate this, the researcher required them not to indicate the name of their schools in the questionnaire, thus guaranteeing anonymity which was likely to boost objectivity in their responses. The researcher also assured them that the study will be used purely for academic purposes. Finally, there were a few studies of similar nature at Ph. D level, therefore the researcher relied on journal publications and Masters Theses for literature review.

1.7 Delimitations of the Study

Leedy and Ormrod (2014) notes that, delimitations are in essence the limitations consciously set by the researcher and therefore they are in the researcher's control. Further, according to Theofanadis and Antigoni (2019), delimitations are in essence the limitations deliberately set by the researchers themselves that are concerned with the definitions that the researchers decide to set as the boundaries or limits of their work so that the study's aims and objectives do not become impossible to achieve.The current study was delimited to Public Secondary schools in Makueni County notwithstanding the fact that there are also private secondary schools in the county. There could be many other providers of secondary school education subsidies but the current study was delimited to capitation grants, bursaries, non-state agencies and provision of teaching and learning materials. Whereas participation rate is important, completion rate is equally important but the study was delimited to the former. Further, there are other factors that influence participation rate such as indiscipline, ill-health, socio cultural orientation among others. Document analysis could have helped the researcher in establishing the frequency of students' school attendance, information from the respondents sufficed, and therefore the researcher used questionnaires and interview schedule. Lastly, the researcher acknowledges that there could be other respondents that could inform the current study, however the current study was delimited to principals, deputy principals and sub county directors of education.

1.8 Assumptions of the Study

According to Leedy and Ormrod (2014), assumptions of a study are factors that are somewhat out of the researcher's control, but if they disappear the study would become irrelevant. The researcher made the following assumptions on the study;

i. Respondents were conversant with the impact of educational subsidies on participation rates in education.
ii. The respondents were aware of all donors that subsidize education in their respective institutions
iii. The respondents gave accurate and honest responses in the data collection instruments.

1.9 Organization of the Study

This study consisted of six chapters. Chapter one comprised background to the study, statement of the problem, general study objective, specific objectives of the study, research questions, significance of the study, limitations of the study, delimitations of the study, definitions of significant terms and assumptions of the study. Chapter two gave a review of the existing literature on the topic under study, a summary of literature review, then theoretical and conceptual framework. Chapter three discussed the research methodology which included research design, target population, sampling techniques and sample size, research instruments, validity and reliability of research instruments, data collecting procedures, data analysis techniques and ethical considerations. Chapter four consisted of research findings. Chapter five comprised of discussion of research findings and finally chapter six contained conclusions and recommendations.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter presents the related literature on the effect of educational subsidies on participation rates in public secondary schools in Makueni County. It is organized into the following sub themes, concept of educational subsidies and participation rates, influence of FDSE on students' participation rates, influence of bursaries on students' participation rates, influence of financing from non-state agencies on students' participation rates and influence of the provision of teaching and learning resources by the government on students' participation rates in public secondary school education. The chapter contains a summary of literature review and also expounds on the theory upon which the study is underpinned and finally draws a conceptual framework of the study.

2.2 Concept of Education Subsidies and Participation Rates

The cost of secondary education, including tuition fees, text books, uniform, other direct costs and opportunity costs often present a key barrier to secondary education, particularly for those learners from socio-economically disadvantaged households. Governments around the world are abolishing secondary school fees, but that does not fully alleviate the financial burden borne by household in taking their children through secondary school education (Zubairi & Rose, 2018). Many countries like Uganda provide capitation grants to learners in secondary schools to cover the loss of income from fee income, but this is still not sufficient thus leaving the schools with no option other than to rely on fees income of different kinds, which is poses a financial burden especially to poor households (EPRC, 2018). It is in view of this, that it becomes necessary to come up with more targeted approaches of subsiding secondary school costs. This often focuses on initiatives that relate to cost reductions through social protection programmes such as scholarships or Conditional Cash Transfers (CCTs) that focus on increasing access to education through enhanced enrolment and subsequent retention in the school system (Petrosino, Morgan, Fronius, Tanner-Smith & Boruch, 2012). This could mean that, when educational subsidies are not adequate to retain students in school through regular school attendance, then the

investment by government and other subsidy providers fails to achieve its intended objective.

Education subsidies most commonly come in form of Cash transfer programmes which have been implemented by governments and non-state actors. According to Glewwe and Muralidharan (2015) these programs have exponentially increased with the largest coverage now being in Sub-Saharan Africa. Though there is evidence that these funds can make immense contribution towards increased access to education through enhanced enrollments and regular school attendance which translates to high grade to grade survival rates and high participation rates in education, the funds are not mainstreamed in education budgets. The other downside of this financing is that, it is mainly directed at addressing poverty constraints that hold back access and participation while giving little attention on learning outcomes (Bastagli, 2009). Quality education can only be achieved if the financing is adequate to cater for infrastructural requirements, provide the needed teaching and learning resources and cater for any other factors needed for proper provision of education. This reviewed study utilized meta-analyses and systematic studies and then at individual programmes, to determine which groups have been targeted, how they have been targeted, how much they have received, and how targeting and size of transfers affects impact they have had, with a particular focus on secondary education. The current study however sets out to establish how education subsidies both from governments and non- state actors have contributed to participation in education in public secondary schools.

A study conducted in England by Dearden, Emmerson,Frayne and Meghir (2005) sought out to evaluate whether means-tested grants paid to secondary students are an effective way of reducing the proportion of school dropouts. The study was conducted using matching techniques on a pilot study carried out in England during 1999 and 2000 using a specially designed dataset that ensured that valid comparisons between pilot and control areas are made. The current study however used qualitative and quantitative techniques to analyse data collected through questionnaires and interviews schedules. The study established that, the subsidy is quite impactful with participation rates at the start (at age 16/17) being around 4.5 percentage points higher. One year later, participation rates

increased by around 6.4 percentage points as a result of subsidies. These effects are greatest to those receiving full payment while those who get partial subsidies only varying slightly from the control group in the second year of the program. The study finally concludes that the policy has the largest impact on children from the poorest socio-economic background. The bearing of these findings is that, education subsidies work towards making education affordable to households who would otherwise not have afforded it, they make education a public good that has maximum social benefit. The presumption of the policy makers who come up with education subsidies is that, low levels of education participation are as a result of financial constraints by households rather than to the outcome of an informed choice in an unconstrained environment. This implies that the effect of the subsidy policy is not only to increase participation, but also retention in full-time education upto completion.

Education subsidies can be viewed through the supply or demand approaches. Supply approach is achieved by for instance building schools, increasing school resources, increasing teacher salaries, providing training, reducing class size by increasing school infrastructure, among others. According to Schultz (2005), supply approach of subsidies can increase enrollment in some cases but not specifically increase the enrollment and participation of disadvantaged students and can widen the gap of educational achievement of poor and well to do children. The result of evaluation of Programa de Asignación Familiar (PRAF), or Family Allowance Program, (PRAF) in Honduras by Glewwe, Ana, Kassouf,Huang,Ribas and Elisabeth,(2008) concluded that, whereas demand approach increases enrollment, supply approach does not. This is premised on the fact that; demand approach in form of inter alia, capitation grants and school feeding programme seek to ease the demand-side constraints to education. The demand approach provides administratively targeted subsidies for the poor and disadvantaged in the community and as such it reduces the gap in enrollment and participation between poor and non-poor in the society. The demand approach as noted by Schultz (2005), has been shown to reduce inequality in participation in education and incomes of households.

2.3 FDSE Policy and Students' Participation Rates in Secondary School Education

Many economists have treated education both as a private good in which case it is viewed as an investment that benefits individuals in their private capacities and as a public or social good which benefits societies in their entirety (Psacharopoulos 2014, Psacharopoulos and Patrinos 2002, Montenegro and Patrinos 2014). Education produces externalities which are benefits of education to societies and that go beyond the benefits to the individual being educated. It is on the basis of these important externalities, that provision of education requires a public subsidy to ensure that it is "produced" in socially optimal quantities. In most cases disposable resources and capacities of many countries limit their ability to provide free education across the board at all levels of education. It is in view of such a dilemma that social rates of return analyses are used to help prioritize allocation of scarce public resources. Using this approach, the above mentioned economists have recommended committing public resources towards lower levels of education where social rates of return are the highest. In our case, the study looked at government subsidy through capitation grants in funding public secondary education which is part of basic education in Kenya.

Free Day Secondary Education (FDSE) policy refers to capitation grants disbursed by government to secondary schools and that are provided equally across public secondary schools based on the number of students enrolled. According to UNESCO (2018), these capitation grants are intended to bolster the effective management of the public secondary schools by providing finances for various needs, such as procurement of teaching and learning materials, administrative costs of running schools, paying personal emoluments for school workers and other school-related expenses. According to Deffous, De Grauwe and Lugaz (2021), the grants are aimed at mitigating financial barriers to education, improving school accessibility, and increasing student participation in education. They constitute part of the government's efforts to the provision of free and quality education in secondary schools and are usually disbursed on a per-student basis, to ensure equal funding across the various schools across the country's different schools irrespective of their location or socioeconomic status. The express implication is that, these capitation grants

serve to boost participation in education even to households that may not have afforded to send and sustain their children in school.

In recent years, there has been a concerted worldwide momentum in which more developing countries are moving to sustain and reinforce the renewed progress toward attainment of SDG 4 through bolder, accelerated and scaled strategies (Osei, Owusu, Asem &Afutu, 2009). School fees abolition through provision of capitation grants is increasingly being touted as one of these strategies and as a critical vehicle to achieving children's right to education as envisaged in sustainable development goal number 4. This was upon the realization of the fact that, the private costs of schooling are a major impediment that deter many children from accessing, participating and completing quality basic education. According to Association for the Development of Education in Africa, ADEA (2007) these costs are especially severe in developing countries where poverty imposes tough choices on households about how many and which children to send to school, and for how long.

Capitation grants therefore need to take into account both direct and indirect costs of schooling including, tuition fees, costs of text books, supplies and uniforms, PTA contributions, costs related to sports and other school activities, costs related to transportation, contributions to teachers' salaries, etc as well as opportunity costs and other burdens on poor households (USAID, 2007) . Countries that have taken the bold step to eliminate school fees and other indirect education costs saw a surge in total enrolment in the year following the abolition as follows 11% in Lesotho (2001), 12% in Mozambique (2005), 14% in Ghana (2006), 18% in Kenya (2004), 23% in Ethiopia (1996), 23% in Tanzania (2002), 26% in Cameroon (2000), 51% in Malawi (1995) and 68% in Uganda (1998) (ADEA, 2007).

The current study concentrated on secondary school education since it is a very important bridge between education and the world of work. Poor participation at this level is therefore detrimental to both the individual future earnings and the macro-economic growth for individual countries (Tilak, 2020). When young people fail to fully participate or drop out of school, they get to the labour market without having developed strong cognitive and

socio-emotional skills and as such not well equipped to get well-paying jobs. Economic Commission for Latin America and the Carribean (2008) holds the view that, the successful completion of secondary school education constitutes a minimum education threshold that almost guarantees a person's future outside poverty.

Recent data in United Kingdom by Dearden, Emmerson, Fragne and Meghir (2014) sought to establish the effect of Educational Maintenance Allowance (EMA), a subsidy paid by the government to secondary students in post-compulsory school ie. Year 12 and year 13 on their participation in education. The study under review was not randomized like the current study, instead it used treatment and control experiment in which case the students under study received different treatment. In order to balance distribution of observable characteristics, propensity score matching was used while in the current study, this was achieved through stratified random sampling. In order to establish the effect of subsidies on different age groups, sensitivity analysis was done while in the current study linear regression model was used on quantitative data to indicate the influence of educational subsidies on participation rates. From the study it was established that, the subsidy has had both a significant and positive impact on post-compulsory secondary education with participation among eligible young people estimated as 4.5 percentage points higher than those without subsidies. This therefore shows that education subsidies have an impact on participation in education.

An empirical study in Vietnam by Tuan, Nguyen, Phuong and Khuong (2020) sought to establish the effect of tuition fee reduction and education subsidy on school enrollment. The study examined the impact of two education incentive policies including tuition fee reduction and education subsidy on secondary-school enrollment of children in Vietnam. The current study however examined the influence of four types of education subsidies student participation in public secondary schools. Whereas the current study used a descriptive survey design, the reviewed study utilised the Vietnam Household Living Standard Surveys for the 2006–2018 period. The study under review established that, the impact of these policies vary according to different groups of students with a greater effect felt by learners from households in the ethnic minority groups, rural areas, poor and low-

income settings. The findings conclude that these education incentive programs are an effective way to encourage children to enroll and get retained in school, especially in low- and middle-income countries.

In Sub Saharan Africa region, governments spending in education has increased from 3.8 percent to 4.3 percent between the periods 2000-05 to 2012-18 (Education Commission, 2016). This spending on subsidized education has seen Sub Saharan Africa region witness a sustained growth in secondary school enrollment and participation. However, despite this spending and growth in secondary school enrollment, 65 million young people of secondary school age are still out of school (Zubari & Rose,2019). These improvements notwithstanding, nearly 60 percent of young children of senior secondary school age remain out of school in the Sub-Saharan Africa due dropping out orchestrated by sporadic school attendance. A study by UNICEF (2018) in Rwanda for instance revealed that, the government has the highest expenditure in education in East Africa at 38% of GDP per capita on secondary education leading to a significant increase of 22 percent in lower and upper secondary enrollment between 2011 and 2018. However, despite all this, there has been poor participation in education with drop-outs increasing in public secondary schools from 11.6 per cent to 14.7 per cent during the same period (UNESCO-UIS, 2019). The study under review is a national programme reviewed by UNESCO unlike the current study which has a county as the study locale.

A policy review conducted in Ghana by Osei, Owusu, Asem &Afutu (2009) using econometric techniques set out to establish the effects of the education grants on education outcomes in Ghana. The study observed that, from about 2005 when the capitation grant was initiated in Ghana, the grant has increased over the years. But there have been shortfalls in what is promised by government and what the schools actually get from the Ghana Education Service. The effect being that, there is a consistent deficit in what is due and what is realized. The study further notes that, this state of affairs does not sit well for education outcomes because it presents a strain on the schools. The interpretation is that, since capitation grants bring about an increase in enrollment, then an added financial responsibility for the schools is inevitable. Therefore, if disbursements to schools fall short

of budgets, the schools have to take drastic measures to be able them to meet their obligations, some of these measures may involve a reduction in key expenditure line items. A case scenario may be, when classes become overcrowded and the meager resources provided through fees to schools are over strained, the result can reverse hard-earned gains and demotivate teachers, parents and students (UNICEF, 2007). The implications of this case scenario may be that, participation rates in education decline despite an increase in enrollment.

A study by Mwangi (2018) on the influence of free day secondary education on completion rates in public secondary schools in Kitui county, Kenya included document reviews as one of its data collection procedures unlike the current study that used questionnaires and interview guides to collect data. The study targeted day public secondary schools in Kitui County, the current study however targeted all public secondary schools in Makueni county. Further, the current study set out to establish the influence of educational subsidies on participation rates in secondary school education unlike the study under review that was concerned with the influence of education subsidies on completion rates in secondary education. From the findings, it was established that, although, 98.11 per cent of the principals agreed that the FDSE subsidy has increased students' completion rates in public day secondary schools, 30 per cent of the students enrolled in form one in 2008 did not complete the secondary school cycle in 2011. Though the study did not lay emphasis on participation rates,60 percent of the Principals who were involved in the study, cited lack of school fees resulting to poor participation as the main reason for non-completion of secondary school education in four years. There seems to be a correlation between participation in education and completion rates. The current study therefore sought to establish the influence of educational subsidies on participation rates in secondary school education.

2.4 Education Bursaries and Students' Participation Rates in Secondary School Education

The fact that education is an important aspect of human development that is key in overcoming socioeconomic disparities cannot be gainsaid (Rhenals & Arango, 2022). In the same token, disadvantaged students need assistance in accessing quality education because of the financial constraints they face. According to Moores and Burgess (2023), bursaries have become a critical means of providing financial assistance to these students in that it enables them to access education and fully participate in education through regular attendance to school. This is so because bursaries are fashioned to provide financial aid to students from disadvantaged backgrounds who may lack the resources to finance their education. Salmi and D'Addio (2021) note that, bursaries can be awarded on the basis of a number of criteria mainly based on merit, need, or a combination of the two. Whichever way, the provision of bursaries effectively bolsters equitable access to higher education, mitigates the financial burden on disadvantaged students, thus enabling them to achieve their academic goals. O'brien (2018) notes that, bursaries help disadvantaged students not only financially but also in bolstering their self-confidence and motivation by recognizing their academic potential. Bursaries are an important aspect in boosting the social mobility of disadvantaged students as it provides them with opportunities to pursue careers that may otherwise have been out of reach.

In Thailand, the Equitable Education Fund was established in 2016 which is a fiscal policy targeting poor students with a view to improving their education outcomes (UNESCO, 2024). The objective of the EEF according to Bastagli,Jessica and Harman (2016) is to ensure equity and efficiency in attaining inclusive education that is specifically serving the most disadvantaged quantile of households. To show commitment in ensuring equitable financing of education, in 2020 the EEF budget stood at THB 83 billion, which was 16.8% of the public education budget. This allocation according to UNESCO (2024) is significant.

A key salient feature of EEF is the conditional cash transfer programme which distributes cash to poor households so as to increase their school attendance which boosts their participation rates in education. According to the UNESCO report, households that satisfy

the eligibility criteria to the program are required to ensure that their children attend atleast 85% of school days per year. The import of this intervention is that, school attendance is bolstered and the poor households are retained in the education system without disruptions. An empirical study by Behrman, Sengupta and Todd (2005) in Mexico, noted that, educational bursaries were associated with enhanced enrollment rates, less grade repetition, good grade survival rates, decreased dropouts and higher school re-entry rates among dropouts. All these parameters are associated with enhanced participation in education. The study employed a survey to carry out an impact assessment of a school subsidy experiment in Rural Mexico. Survey data from village and household-level was collected in 506 randomly selected villages through randomization of treatment villages and control villages. The current study however used descriptive survey design and was based on a school set up unlike the study under review that had both a household and village setting. Treatment villages imply that different villages were given different treatment, with some being control villages and others being experimental villages, the current study was however based in a school set up and where all participants were given equal treatment. The study established that, if financial barriers to enrollment and participation in education are removed, those who could not afford the costs of education will participate in schooling. This conclusion is in tandem with the current study which set out to establish how subsidies relate with participation rates in education.

A review in Belgium by Franck and Nicaise (2022) established that in a bid to ensure that learners from disadvantaged backgrounds get equal opportunities of education with their well to do counterparts, an Equity Funding Policy (EFP) is adopted. The study used a comprehensive search strategy through an electronic search based on Scopus and Web of Science data bases. The curret study however employed the use of questionnaires and interview schedules to collect data. While the study under review used backward and forward snowballing method to include references that were of interest but were not found in the databases, the current study adopted the use of descriptive survey design. From the reviewed study, it emerged that, there were critisisms leveled against the EFP in that, for it to be effectivelly implemented a very detailed data on individual student characteristics are required, this could lead to serious privacy issues and a lot of paperwork (OECD, 2017b).

Further, the study notes that, concerns have been raised about the reliability of the data submitted by schools in applying for additional resources. Similar concerns surround bursary awards in schools in that, in some instances the intented beneficiaries miss out due to submission of inaccurate data.

A study in the Kingdom of Lesotho by Mat'ela (2023) sought to establish the effectiveness of the OVC bursary scheme in enhancing orphans and vulnerable children's access to secondary schools in Lesotho. The study employed semi-structured interviews and document analysis and selected participants through purposive sampling. The current study on the other hand used questionairres and interview schedules as the research instruments. The reviewed study targeted school principals, teachers, orphans and vulnerable learners both supported and not supported by the OVC Bursary Scheme Policy 2000 and guardians or parents of these learners. The current study however used principals, deputy principals and sub county directors of education as the target population. From the study under review, it was established that, so as to provide quality education for all, in 2000, the Government of Lesotho established the OVC Bursary Scheme Policy 2000 for secondary school to enhance access and retention, and ultimately reduce dropouts thus enhancing education participation in secondary schools. The study findings concluded that, despite government efforts to enhance the retention of OVC and reduce school dropouts through the secondary education bursary scheme fund, the objective is far from being achieved. This is because as noted by Kingdom of Lesotho (2019) and United Nations International Children's Emergency Fund [UNICEF] (2017), the policy seems to be twofold as its selection is need-based, while its implementation is found to be performance-based, thus impending the attainment of the policy objective of enhancing access and retention of OVC in secondary schools until the circle is complete. The number of OVC dropouts in secondary schools signifies the unfulfilled objective of the bursary policy. This concurs with the current study that established that, the bursaries awarded to students are not adequate to see them through secondary education cycle, meaning that some vulnerable students end up dropping out of school despite the existence of a bursary scheme.

A study Majgaard, Kirsten and Mingat (2012), in Malawi on the impact of Conditional Cash Transfer pilot program on girls' secondary school attendance targeted girls who were out of school (baseline dropouts) and those who were in school at baseline (baseline schoolgirls). The study district was divided into 550 enumeration areas (EAs), consisting of an average of 250 households encompassing several villages in which experiments were done on the impact of cash transfers on school attendance. This is in a stark departure from the current study which was done in a school set up and not in the villages. The programme under review consisted of direct cash transfers to each affected girl and indirect monthly cash transfer to the parent of each girl. In the current study, it was different in that the subsidies are send to the schools where the targeted students are attending. The schools were stratified according to school categories unlike the study under review which is divided into enumeration areas. Whereas the current study used descriptive research design, the reviewed study used experimental research design on the study on conditionality. The study established that, the transfer programme had a significant positive impact in school attendance and the rate of re-enrollment of girls who had dropped out of secondary school rose by a factor of 2.5. at the same time, the drop-out rate due to occasional absenteeism among those in school fell by 5 percentage points, from 11 percent to 6 percent. By express this implies that bursaries have a positive bearing in enhancing participation rates in education by students.

Kenya operates National Government-Constituencies Development Fund (NG-CDF), formerly known as the Constituencies Development Fund (CDF) under the Ministry of Devolution and Planning. It was established through the CDF Act of 2003 and reviewed in 2015 with its main aim being to support constituency-level grass root development projects including bursaries. The NG-CDF Act of 2015 provides that an amount of not less than 2.5% of all the national government's share of revenue be directed to the NG-CDF as divided by the annual Division of Revenue Act enacted by Article 218 of the Constitution. In the 2023/24 financial year for instance, the Treasury allocated Sh57.93 billion under the NG-CDF for the 290 constituencies with each getting a figure of Sh199.7 million to finance development projects (KNBS, 2024). According to the amended NG-CDF Act of 2015 education bursary schemes are to be allocated at most 35% of the total funds allocated for

the constituency in any financial year. This paints a picture of a government keen on alleviating the challenges of non-participation in secondary school education due to financial constraints.

According to a study by Oyoo, Achieng and Asena (2020) on the influence of National Government Constituency Development Fund (NG-CDF) support on students' enrollment in Muhoroni constituency in Kisumu County, Kenya, despite the huge investment in education through the NG-CDF, a large number of students are not sustained in the schools once they are enrolled. The study sampled 120 NG-CDF bursary beneficiary students, 12 Principals and five NG-CDF secretaries. The current study however targeted Principals, Deputy Principals and Sub-County Directors of Education. From the study it emerged that, whereas the bursaries were awarded majorly to students who were orphaned, bright and needy, the funds were never enough to cater for all the applicants. The study concluded that there was a strong positive correlation between NG-CDF bursary and enrollment of students. The study did not however seek to establish the influence of the bursaries on students' participation rates in education, a gap that the current study sets out to address. One of the objectives of the current study was to establish the influence of NG-CDF bursaries on participation rates of students in public secondary schools. Other forms of bursaries include National Government Affirmative Action Fund (NGAAF), Ministry of Education bursaries, county governments bursary fund among others.

2.5 Education Financing by Non-State Agencies and Participation Rates in Education.

Domestic governments and multilateral foreign donors have in the recent past committed a significant fund allocation towards the provision of quality and equitable education (UNICEF, 2015). But despite these efforts, fiscal and capacity constraints quite often than not prevent them in mobilizing adequate resources to achieve their set objectives. According to Henon (2014), this state of affairs has invariably made bridging the acute financing and delivery gaps that prevent access to quality education a major challenge, requiring all hands-on deck. Evidence has it that governments cannot satisfy the full range of demands for education, making it necessary for other players' activity in education. It is at this point that, non-state actors, *inter alia* religious and charitable organizations,

corporate organisations in their corporate social responsibility policies, foundations etc step in to partially fill the gaps. Bain & Company (2015), a management consulting firm notes that, non-state finance is seen as an important frontier source of finance, especially at a time where official aid from government is declining and domestic revenue-raising efforts are still falling short of need. Non-state actors in their diverse forms, chip in to compliment government's effort to deliver quality education that is equitable irrespective of the race, social economic background or any other potential barriers that may limit individual households from benefiting from such an education.

According to a global education monitoring report summary by UNESCO (2022), irrespective of whether non- state actors are motivated by charity, beliefs, ideas or profit, if the supply of education is responsive to demand, then their contribution is apt. The report further notes that, non-state actors help fulfil the citizens' right to education by filling genuine gaps in provision for education for disadvantaged groups often neglected by public systems. Non-state actors come in to help households cover education costs through scholarships paid for by companies, foundations, NGOs and philanthropists, as well as by providing student loans or income-share agreements. UNESCO (2024) under the auspices of SDG4 High-Level Steering Committee is leading a debate on the financing architecture for education. The committee roots for the deployment of innovative funding solutions and sustainable financing approaches for secondary school education that are in line with the respective country needs and requirements. The report recommends inclusion of cross-sector collaborations that allows joint resource mobilization for education through government-led coordination mechanisms and financing by multilateral agencies and other non-state financial partners. This initiative underscores the significant role that is played by non state agencies in the provision of equal opportunities in education by bostering participation rates in education, a narrrative that resonates with the findings of the current study.

In Latin America, Fly the Phoenix, a charitable organisation provides education materials for children in secondary schools. The organization provides subsidies to cater for students' well-being to over 1000 children in 11 primary and secondary schools in Guatemala,

Honduras, Nicaragua, Ecuador and Peru (Fly the Phoenix, 2022). In these countries education is free but the learners are held back from attending school by costs of support materials such as books, uniform and other stationery that is not provide for free by the governments. Information from the organization avers that, a child typically won't attend school simply because they can't afford the pens, paper, books and uniform that is required by school administration. This by express means that these students miss out on an education. The children who attend school will continue, for as long as money is available and cease attending regularly as soon as money runs out where education becomes a bumpy road and they give up. Regular school attendance is a parameter that measures participation in education. The operations of this organization is in concurrence with the current study which established that, education subsidies by non-state actors including charitable organisations, boosts participation in education.

A framing paper in Washington, DC by Steer, Gillard, Emily and Latham (2015) on 'non state actors in education', hold the view that, charitable organisations finance education purely on a social motive with no expectation of pecuniary returns. The study was triangulated by mixing qualitative and quantitative methods and reaching out to the various stakeholders' involved in the education financing process. The current study used stratified random sampling to reach out to the participants of the study. Whereas the current study used questionnaires and interview schedules to collect data, the study under review used desktop reviews, interviews, field group discussions, surveys and process analysis to collect data. The study established that, charitable giving and non-state investments in education has the effect of alleviating financial constraints by augmenting the government's capacity to deliver education equitably. These findings resonated well the current study which in its objectives sought to establish the influence of education subsidies by non-state actors on participates rates in secondary education.

In sub-Saharan Africa region, Hali Access Network is an association of non-profit and non-government agencies and organizations that work to uplift high-achieving, low-income students from the African continent to help them access secondary education opportunities (HALI, 2023). The main objective of this network is to level the playing field in secondary

school education so as to increase inclusion and access by offering scholarship support for remarkable students who only lack finances to make their educational dreams come true. This is upon the realization of the immense the power of education to change communities and in the impact its successful provision may have in transforming societies. According to information from the Network's website, education can be viewed as the catalyst needed to pull families and communities out of the vicious cycle of poverty. Further knowledge gives children the power to dream of a better future and the confidence needed to pursue a full education without disruptions, which in turn will help generations to come. This assertion is in concurrence with the findings of the current study which established that subsidies from non-state actors help in boosting participation rates in secondary school education.

According a study in Ghana by (Duflo, Dupas and Kremer 2011), Lottery awarded 682 secondary school scholarships to students who could not enroll due to lack of funds and who were at risk of dropping out and had started showing to poor participation due to lack of funds. The study under review was a baseline survey unlike the current study which used descriptive survey design. Whereas the survey involved longitudinal studies in form of extensive follow-up surveys administered in person after 5 years and callback surveys done annually, the current study involved a questionnaire and an interview guide administered on a one-off basis to all the respondents without subsequent follow-ups. From the study, students who received the scholarships were to pay for the cost of school materials, transport and feeding as it covered full tuition and fees for day students. The impact of the scholarship was that, beneficiaries were 26 percentage points more likely to complete secondary school and their learning improved, scoring an average 0.15 standard deviations greater on a reading and math test. This shows that financing from non-state actors goes along way in improving learners' participation in education. The current study is consistent with the reviewed study since it also endeavored to establish whether there existed such a relationship in the study locale.

A study by Business & Human Rights Resource Centre (2018) reveals that, a new frontier of the donors is emerging in Kenya – the corporate sector. Kenyan companies especially

those supporting secondary education have significantly increased in the recent past. A case in point is the 'Wings to Fly' program that was established by Equity Group Foundation in partnership with Mastercard Foundation and with support from the German Government through KfW, USAID, UKAID, alongside other partners including individual benefactors. The program provides comprehensive secondary school scholarships to academically gifted students from economically disadvantaged backgrounds who are regarded as vulnerable and with a high likelihood of not participating in secondary school education. Further to the scholarships, the beneficiary students also receive revision books, school uniforms, transportation to their respective schools, pocket money, and scheduled mentorship and leadership training sessions. According to equity group, this holistic approach ensures that the students are well-equipped for high academic attainment and develop into well-rounded individuals ready to face the challenges of life after secondary school. The programme was incepted in 2010 and has since benefitted 60,009 students to date. The Wings to Fly program according to information from Equity Group Foundation official website, boasts a remarkable track record, with an average secondary school completion rate of 97% since inception. This is testament to the assertion that participation in education can be enhanced through provision of financial assistance. Analysis for the reviewed study was done through document analysis and desk reviews unlike the current study that used questionnaires and interview schedules to collect data. A similar programme, Co-operative Bank Foundation was launched in the year 2007, and had supported over 10,000 students by 2023. Every year, the foundation offers 655 scholarships at a cost of Ksh.200 Million to students who have completed their primary school education but are unable to enroll in secondary education due to financial constraints. The programme which is internally funded by the institution enhances participation rates in education for the beneficiaries.

2.6 Teaching and Learning Resources and Participation Rates in Secondary Education

Teaching and learning resources are essential to learning and greatly impact students' participation in education as well as the overall academic performance (Shafique, 2016)(Shafique, 2016). Examples of teaching and learning materials that are significant in

a secondary school set up include, textbooks, audiovisual materials, laboratory equipment, and other materials that help students in comprehending and retaining information (Saad & Sankaran, 2020). A variety of teaching and learning materials significantly bolster the progress of students' learning by providing a visual aid that helps students in decoding and understanding abstract and complex ideas and concepts that cannot be comprehended by using text alone (Martela & Ryan, 2016). Studies have shown that, when knowledge is delivered to students through visual aids or hands-on activities, along side other teaching and learning materials, they are more likely to remember it. Schools that are not well endowed may lack such teaching and learning materials and this may make students lose interest in schooling due to the low test scores they may post in examinations. If this continues, low student participation may set in and eventually the students may drop out of school. It is against that backdrop that governments subsidise education by providing teaching and learning materials to schools (Shabiralyani, Hamad & Iqbal, 2015). This assertion concurs with the current study that sought to establish the nexus between provision of teaching and learning materials and participation rates in education.

In Venezuela, UNICEF (2023) in conjunction with the government plans to reach a total of 1.2 million children who are out of school by use of educational supplies as a way of subsidizing education. Through the initiative, learners are provided with back-to-school kits to keep them learning despite the hard socio-economic conditions. Each back-to-school kit contains a school bag holding essential learning supplies including a notebook, pencils and supplementary readers. These kits are distributed to students across the republic in the states of Miranda, Distrito Capital, Bolívar, Zulia, Táchira, Carabobo, Portuguesa, Barinas, Apure, Falcón, Amazonas, Delta Amacuro, Anzoátegui, Sucre, La Guaira and Nueva Esparta. UNICEF also provides teaching and learning materials, to schools as a way of further supporting students and teachers (UNICEF,2023). These programmes according to UNICEF help to boost participation in education for students who would have otherwise dropped out of school due to their strained socio-economic backgrounds that make households unable to cater for education supplies needed by these learners in school.

A research study conducted by Rawat, Gopang and Hamid (2012), to examine the impact of free textbooks distribution on retention rate of learners in secondary schools of Taluka Gambat District Khairpur Sindh Pakistan targeted head teachers, class teachers, subject teachers, learners and parents. The current study did not however target class teachers, learners and parents instead it targeted Principals, Deputy Principals and Sub County Directors of Education. In the study under review, random sampling technique was used to select the respondents and the study was conducted according to qualitative method. The current study used both stratified random sampling for the various school categories and purposive sampling for the Sub County Directors of Education. The study under review established that, free textbooks distribution helped increase retention rate, decrease dropouts, raise enrollment, improve daily attendance, increase passing rate of learners and enhanced the quality of education. By and large from the findings of the study, it is evident that provision of teaching and learning resources increases learners' participation rates in education.

A study conducted in the Sub Saharan Africa region by Hassan,Groot and Volante (2022) sought to establish the relationship between education subsidies inform of teaching and learning materials and learning outcomes. This slightly departs from the current study that set out to establish the relationship between provision of subsidies inform of teaching and learning materials and participation in education. However, both studies were in concurrence that, subsidy interventions involving pedagogical materials such as textbooks, workbooks and exercise books were primarily associated with positive effects on student learning in the form of increased test scores which increased students' love for school and for that reason regular school attendance which is a fundamental measure of participation in education. Whereas the reviewed study was using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses method (PRISMA), the current study used descriptive survey design. Further the current study made use of questionnaires and interview schedules to collect data from respondents unlike the reviewed study whose research criteria included peer-reviewed studies. Findings of both studies sharply differ with findings of a study by Murnane and Ganimian (2014) which sought to establish if provision of teaching and lerning materials in developing countries impacted on learning

outcomes. The study concluded that, provision of more learning materials was not consistently associated with improved student performance, a fact they attribute to such factors as: inability of the children to read in English if the textbooks were in that language; hoarding of textbooks by school administrators and lack of understanding of how to use learning aids such as flipcharts. Despite the departure, these finding by express infer that, if such barriers are abolished, then provision of teaching and learning materials are a motivator to schooling.

One of the concerns of the government of Rwanda according to Arora and Singh (2017) is to improve overall student academic performance by equipping schools with sufficient number of teaching and learning materials. Studies have demonstrated that when schools have enough teaching and learning materials, students learn with high motivation, resulting in the optimum student participation in education (Ilomo & Mlavi, 2016). According to a study conducted by Berthilde and Manizabayo (2021) on the relationship between the availability of teaching materials and students' academic performance established that, inadequate teaching and learning materials leads to lack of motivation and can result to irregular school attendance. The reviewed study used correlation research design unlike the currentt study that used descriptive survey design.The study notes that by creating a conducive teaching and learning environment with adequate resources, students will learn well; be motivated to attend school regularly,thus, increase their performance. Further the study posits that, schools where students perform well are those that allocate enough money in the well-being of students by providing sufficient teaching and learning resources. This assertion is a reflection of the findings of the current study which established a positive significant positive correlation between provision of teaching and learning materials and participation in education.

An empirical study carried out by Belinda, Wanjala and Riechi (2024) sought to examine the influence of provision of teaching and learning materials on students' participation rates in Nairobi County, Kenya. The study used a census technique to collect date from respondents unlike the current study which made use of questionnaires and interview schedule to collect data. The reviewed study held that, the availability of teaching and

learning materials to students contributes to increased access to and retention in education. This is because, teaching and learning materials provide students with the requisite resources to engage actively in the learning process, the ultimate result is regular school attendance which is one of the parameters of participation in education. The teaching and learning materials include and not limited to, textbooks, workbooks and other educational tools help present information in a presentable manner, making it possible for learners to decipher and retain knowledge. Access to these materials makes students to gain more opportunities to learn and develop their skills thus making schooling interesting. The respondents from the reviewed study felt that some students learn better by use of visual aids, other prefer hands-on activities through interactive digital devices.

According to a study by Ouma (2017) on the influence of school based factors on internal efficiency in mixed public secondary schools in Nyatike sub county, Kenya, teaching and learning resources affect retention and performance of students in secondary schools which may subsequently contribute to dropout of students. From the study,100 percent of the teachers sampled for the study indicated that, teaching and learning resources affected student retention and performance in schools. This speaks to the current study which found out that adequate teaching and learning materials in secondary schools encouraged learning and thus increased students' participation in education. From the reviewed study, the shortage was recorded on books, revision materials for exams and laboratory chemicals whose shortage was so acute that most of the practicals in sciences were not being done. This led to lack of interest in education posing a threat of dropping out of school by students. The reviewed study did not however look into the effect of education subsidies by the government in addressing the problem of participation in education in secondary schools, a gap that the current study sufficiently addressed.

2.7 Summary of Literature Review

From the reviewed literature it has emerged that, concerning free day secondary education capitation grants which was the first subsidy under review, a study in the United Kingdom by Dearden et al (2014) concurred with that of Mwangi (2018) on the assertion that government subsidies boost completion rates. Both studies are inconsistent with the current

study to the extent that they did not address participation rates in education as influenced by government subsidies. On the second subsidy, a study by Behrman, et al (2005) in Mexico noted that, educational bursaries were associated with enhanced enrollment rates, less grade repetition, good grade survival rates, decreased dropouts and higher school re-entry rates among dropouts. The study was consistent with the study by Majgaard et al (2012), in Malawi on the impact of Conditional Cash Transfer pilot program on girls' secondary school in that they were both conducted in the village at the household level. The current study was however different since it was conducted in a school setting. Both studies used experimental research designs with a group being set up for control experiment unlike the current study which used descriptive survey design. The two studies under review considered many aspects of internal efficiency, however the current study was delimited to participation rates only.

A study in Washington, DC by Steer et al (2015) on 'non state actors in education', was in agreement with that of Duflo et al (2017), in Ghana, that non-state agencies' investment in education had the effect of alleviating financial constraints in education. This is by augmenting the government's capacity to deliver education equitably, thus enhancing participation in education. The study in Ghana however involved longitudinal studies in form of extensive follow-up surveys administered in person after 5 years and callback surveys done annually. This is a point of divergence with the current study which used descriptive survey design. None of the above studies specifically tackles participation rates, instead the reviewed studies involve issues like completion rates, drop out survival rates etc. These consistencies and inconsistencies in the reviewed studies necessitated the current study that set out to establish the influence of education subsidies on participation rates in education.

2.8 Theoretical Framework

The current study was based on Classical Liberal Theory as mooted by Rousseau, (1712-1778). The theory postulates that, by providing equal opportunities of education to the society, social mobility can be enhanced. A significant tenet of this theory is the conviction that citizens of a republic should be educated at public expense, meaning that by

guaranteeing education, governments should set out to finance it fully. The theory holds that, since all men are born equal, personal qualities such as race, economic background etc should not frustrate social equality as long as society rewards people according to their merits. One way of ensuring that equality is upheld as held by the theory is by ensuring that education is subsidized so that even the poor can afford it.

Education being a social institution should not perpetuate inequalities and therefore it should attempt to treat people equally. If households are required to pay for all the costs of education, then the poor would be left out and thus education would be regarded as a perpetuator of social inequalities. In such a case, household that are well to do are the ones that will get a good education because they are in a position to foot the costs associated with schooling. This school of thought concurs with Horace Mann (1796-1890) an American educator who called education the great equalizer. Horace Mann's educational theory advocated the creation of an equal playing ground for the masses through the provision of education. According to Horace Mann's theory, education is a tool that people can use to escape poverty and can enable even the poor to compete with the upper class on more equal terms. This is in further concurrence with the classical liberal theory that postulates that, acquiring practical knowledge through education was a way to gain power and that an educated person was in control of their own destiny. According to OECD (1975), a lot of importance has been attached to education as a means of social mobility and equalization and there is general consensus that, by increasing public expenditure in education participation of the poor in education can be enhanced. This is especially if education aid targets the vulnerable and those at the highest risk of failing to enroll or at the verge of dropping out of school.

The strength of this theory in relation to the current study is that, it supposes that the removal of collective barriers to the expression of individual talent will allow all individuals to make the best of themselves (Jewson & Mason, 2011). These barriers exist inform of education costs that are meant to be borne by households such as tuition fee, transport, meals, cost of uniform and the opportunity cost. However, the classical liberal theory has its critique in that it focuses more on the barriers that are presented by economic

endowment and racial orientation. It fails to appreciate that cultural factors can play a big role in blocking an individual's pursuit of social rewards. For instance, ethnic minorities have negative attitudes for themselves which hinders them from taking advantage of opportunities presented to them even without cost. The classical liberal theory is appropriate to this study to the extent that it talks of social equalization. This is the ultimate goal for providing subsidies in education for it enhances participation in education to all thus improving their capacity to produce the required output given the inputs who are inform of students. Through subsidizing educations, the barriers that exist in the society that may hinder children from attaining the required academic output are greatly mitigated or at best, removed.

2.9 Conceptual Framework

The conceptual framework for this study shows the relationship between educational subsidies and participation rates in secondary schools as shown in Figure 2.1

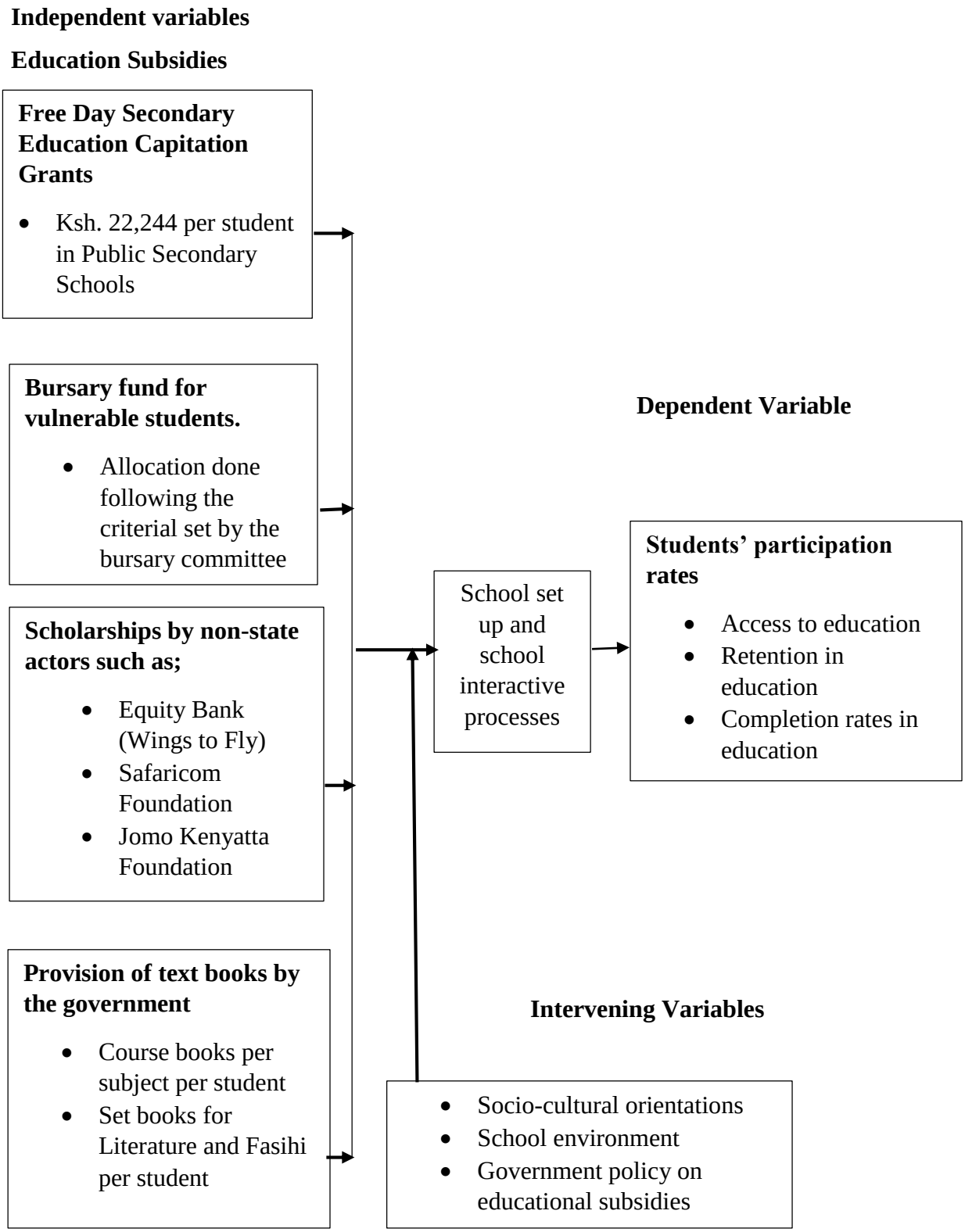


Figure 2.1 Education Subsidies and Students' Participation Rates

The figure shows relationships between the independent variable of the study; Education subsidies and students' participation rates which is the dependent variable. The government disburses education subsidies under the FDSE policy also known as capitation grants equally to all students in public secondary schools, the National Government, Constituency Development Fund (NG-CDF) gives out bursaries to needy students in public secondary schools within the respective constituencies. This is done on a targeted manner in which the most vulnerable in the society are given more funds compared to their well to do counterparts. Non-state agencies like churches, charitable organizations and foundations also support students in public secondary schools. This is in an effort to supplement the governments' effort in education financing. The government in a bid to further address the cost of education, provides textbooks and other teaching and learning resources to public secondary schools. This mitigates education costs since these teaching and learning resources would have otherwise been borne by households. All these subsidies go a long way in influencing the students' participation rates in secondary school education because students would not be sent home for funds. Irregular school attendance is an indicator of poor participation in education. Mediating variables such as institutional climate and school interactive processes constitute a medium through which there is a smooth transfer of independent variables to the dependent variable.

Intervening variables on the other hand affect the effectiveness of subsidies in enhancing students' participation rates in education. If the socio-cultural backgrounds of the learners are pro-education, then subsidies will boost participation rates in education. Conversely, in socio-cultural orientations that don't foster education pursuits, the efforts of subsidizing education will be counterproductive as the societal norms will be holding students aback. Such societies oftenly lack role models that can motivate learners in their quest for education. The other intervening variable is the school environment; a learner friendly school environment will enhance participation of learners in education. A positive school climate motivates learners and thus increases attendance rates and academic achievement of the students. It further promotes students' both mental and physical wellbeing.

A negative school climate on the other hand, breeds a feeling of not belonging or not being wanted in the school environment and this adversely impacts on attendance leading to sporadic school attendance which may ultimately lead to low graduation rates. The government policy behind education subsidies in the provision of free and compulsory basic education (Basic Education Act, 2013), has a bearing on participation rates in education. This full enforcement will bear fruits while, if authorities give its implementation a lackluster approach, then full participation of learners in education will remain a far cry.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

The chapter presents the research design, target population, sampling techniques and sample size, research instruments, validity of research instruments, reliability of research instruments, data collection procedures, data analysis techniques and ethical considerations.

3.2 Research Design

Kothari (2004) defines research design as a plan, a roadmap and blueprint strategy of investigation conceived so as to obtain answers to research questions. Research design is the strategy used to answer research questions and presents a blueprint for collecting, measuring and analyzing data. It is a plan that integrates the different components of a study in a logical and coherent way to ensure the research problem is thoroughly investigated. The current study used a descriptive survey design. Descriptive research design provides information on characteristics of a population or phenomenon rather than asking why it occurs. Doing this provides a better understanding of the nature of the subject at hand and creates a good foundation for further research. This is so because according to Mugenda and Mugenda (2008), descriptive survey design is appropriate to observe, document and describe a phenomenon occurring in its natural setting without any manipulation or control. These features of descriptive survey design made it appropriate for the current study since it enabled the use of existing data relating to education subsidies and participation rates in education to get representative and reliable information.

3.3 Target Population

Mugenda and Mugenda (2008) notes that a population is a group of individuals or objects that have the same form of characteristics. According to Banerjee and Chaudhury (2010), target population refers to the entire group of individuals or elements that share a common characteristic or feature. It represents the larger, comprehensive group that is the focus of a study or analysis. Further, Banerjee and Chaudhury (2010) note that, in research, the

target population is the total set of individuals from which a sample is drawn to make inferences or generalizations. Based on the current study, Makueni County has two national schools, 22 extra county secondary schools, 59 county secondary schools and 302 sub county secondary schools; a total of 385 public secondary schools (MoE,2021). The target population was thus all the 385 Principals, all the 385 Deputy Principals (the national schools and the extra-county schools have two deputy principals each, but only one deputy principal will be targeted per school) and all the nine sub-county directors of education in Makueni county. The target population was therefore 779 subjects.

3.4 Sampling Techniques and Sample Size

Orodho (2003) defines sampling as the process of selecting elements of a target population to create a sample group that is representative of the entire population. It involves selecting the group that the researcher will actually collect data from. Stratified random sampling was used which means that the population is divided into smaller groups based on a few characteristics, and then a random sample is selected from each group. This method according Mugenda and Mugenda (2008) can help researchers determine which aspects of a sample are highly correlated with what's being measured. In the current study, all public secondary schools in Makueni County were stratified as National, Extra County, County and Sub-County Schools. Since Makueni County has only two national schools, one school was selected through random sampling technique. In schools with two deputy principals, one deputy principal was randomly selected to participate in the study. Stratified proportionate sampling technique was used so as to give proportionate representation from the school categories using Yamane's Formula (1967).

$$n = \frac{N}{1 + N(e^2)}$$

Where;

n is the Sample Size

N is the Target Population

e is the Level of Precision

This study used 95 per cent confidence level with ±5 per cent precision level

therefore N=385 and e=0.05

$$n = \frac{385}{1.96} = 196$$

Ratio proportionate sampling was employed to get the sample size of the Principals and Deputy Principals in each school category. The sample size for the Principals and Deputy Principals was calculated as a proportion of the target population (N=385) of Principals and Deputy Principals. The proportion of schools in each category (x) was calculated as a ratio of the target population (N), proportionate to the sample size (n=196) of the Principals and Deputy Principals as derived from Yamane formular. The summary of the target population and sample size of Principals and Deputy Principals according to their category is shown in Table 3.1.

In total 196 schools from all categories were selected to participate in the current study. To select schools from each category to participate in the study, simple random sampling was used in a manner that each school in each school category had an equal chance of being selected for the study. In the selected schools, the Principal and the Deputy Principal were requested to fill in the questionnaires. Purposive sampling was used to include all the nine Sub County Directors of Education in Makueni county since they had requisite information that was important for the current study. According to Robinson (2014) purposive sampling is used when the researcher wants to select a specific group of individuals or units for analysis. This method is appropriate qualitative research in that it allows the researcher to focus on specific areas of interest and gather in-depth data from the respondents. The main aim of purposive sampling is to identify the respondents best suited to helping in answering research questions.

Table 3.1: Target Population and the Sample population.

School Category	Principals	Sample size Principals $n = \frac{x}{384} \times 196$	Sample Size D/Principals $n = \frac{x}{384} \times 196$
National	1	1(one random sample excluded from calculation)	1(one random sample excluded from calculation)
Extra County	22	11	11
County	59	30	30
Sub County	302	154	154
Total	$\sum(N) = 384$	$\sum(n) = 196$	$\sum(n) = 196$

3.5 Research Instruments

According to Mugenda and Mugenda (2008), a research instrument is the tool that a researcher uses to collect information or data from a sample population so as to answer a research question. The current study used a questionnaire and an interview guide as research instruments. According to McLeod (2018), a questionnaire is a research instrument consisting of a series of questions for the purpose of gathering information from respondents. Questionnaires were used because they provide a relatively cheap, quick and efficient way of obtaining information from a large sample of people (McLeod, 2018).They consisted of both open and closed ended questions.

The questionnaires for the Principals had six sections, Section 'A' collected biographic data about the Principals and the school. Section 'B' gathered information on the first objective on influence of education subsidies on participation rates. Section 'C' sourced information on the second objective on influence of bursaries on participation rates. Section 'D' asked questions related to the third objective on influence of financing by non- state agencies on participation rates. Section 'E' collected information on the fourth objective on influence of provision of teaching and learning resources on participation rates in

education. Section F collected information on dependent variables on students' participation rates in education namely access, retention and completion rates of students in education. Questionnaires for the Deputy Principals had five sections, Section 'A' collected biographic data about the Deputy Principals and the school. Section 'B' gathered information on influence of education subsidies on participation rates. Section 'C' sourced information on influence of bursaries on participation rates. Section 'D' asked questions related to the influence of financing by non- state agencies on participation rates. Section 'E' collected information on influence of provision of teaching and learning resources on participation rates in education.

The study used an interview guide to Sub-County Directors of Education in the respective Sub-Counties in Makueni County namely; Mbooni-east, Mbooni-west, Kaiti, Kilome, Kilungu Makueni, Kibwezi, Makindu and Nzaui. An interview guide according to Blackstone (2012) is a method of data collection that involves two or more people exchanging information through a series of questions and answers. The questions are designed by the researcher to elicit information from interview participants on a specific topic or set of topics. These topics are informed by the research questions. An Interview schedule provides a detailed understanding about issues under the study, again, more people are willing to communicate orally than in writing (Bell, 2005). Information gathered during the interview schedules was based on issues of influence of education subsidies and students' participation rates.

3.6 Validity of Research Instruments

Blumberg, Cooper and Schindler (2005), define validity as the extent to which an instrument measures what it asserts to measure. Also, according to Ghauri and Gronhaug (2005), validity explains how well the collected data covers the actual area of investigation.

The researcher ensured content validity through literature reviews on the subject matter as well as relying on supervisors' expert opinions whose comments were incorporated to improve content validity of the instruments. Content validity as postulated by Boudreau, Gefen and Strub (2001) involves evaluation of a research instrument so as to ensure that it

includes all the items that are important, at the same time eliminating undesirable items to a particular construct domain. In the current study, the research instruments were piloted in four schools within the county which were similar to the sampled schools and that were not included in the sampled schools. One percent (1%) of the population is adequate for pilot testing (Jagger & Vaithianathan, 2009). Face validity of the research instruments was established through piloting. Face validity is the degree to which a measure seems to be measuring what it claims to measure (Field, 2005). It assesses whether the measure appears to be relevant. Piloting was used to eliminate ambiguities and irrelevant items in the research instruments which were further presented to supervisors in the Department of Educational Administration and Planning for expert opinion as recommended by Boudreau, Gefen and Straub (2001). Their amendments and recommendations were used to improve the research instruments.

3.7 Reliability of Research Instruments

Mugenda and Mugenda (2009) define reliability as a measure of degree to which a research instrument will yield consistent result or data after repeated trials. Reliability of research instruments is concerned with repeatability, a scale or test according to Huck (2007) is said to be reliable if repeat measurement made by it under constant conditions will give the same result. Testing for reliability is important as it refers to the consistency across the parts of a measuring instrument. To determine the reliability of the questionnaires, the researcher used test-re-test method during piloting. The questionnaires were administered in a sample of two schools selected from the county and the responses recorded.

The schools were not included in the final sample. After an interval of two weeks the second test was administered and the responses recorded all this time keeping the conditions constant (Kothari, 2004). Scores from the two tests were then correlated to get the correlation coefficient using Pearson Product Moment formula. This was to establish the extent to which the questionnaire elicited the same responses every time it was administered

$$r = \frac{n(\Sigma xy) - (\Sigma x)(\Sigma y)}{\sqrt{[\, n\Sigma x^2 - (\Sigma x)^2 \,][\, n\Sigma y^2 - (\Sigma y)^2 \,]}}$$

Where: r is the coefficient correlation.

n is the number of respondents in each test

x is the scores in first test.

y is the scores in second test.

Σ is the summation sign.

A coefficient of 0.80 was obtained which according to Mugenda and Mugenda (2009) implied a high degree of reliability of the data.

3.8 Data Collection Procedures

The researcher obtained an introductory letter from the South Eastern Kenya University which was used to get a research permit from the National Commission for Science Technology and Innovation (NACOSTI). After obtaining the research permit, copies were presented to the Makueni County Commissioner and Makueni County Director of Education so as obtain the necessary authority to proceed with the study in the county. The researcher then booked an appointment with the sample schools through the respective Principals to visit and administer the questionnaires. The researcher wrote an introductory letter and booked appointment for interviews with the Sub-County Directors to personally conduct the interview on agreed dates.

3.9 Data Analysis Techniques

Malhotra and Birks (2006) note that, data analysis techniques include the editing, coding, transcription and verification of data. In the current study, questionnaires were cross checked to ascertain their accuracy. Descriptive and inferential statistics were used to analyse data using Statistical Package for Social Sciences (SPSS) version 22. Quantitative data obtained from the research instruments was analysed using descriptive statistics and

presented in frequency tables, graphs and cross tabulation tables. Qualitative data obtained from responses to open ended questions and interview schedules were transcribed and reported in narratives. Linear regression model was used on quantitative data to indicate the influence of educational subsidies on participation rates in public secondary schools in Makueni County as follows;

$$P_r = f(FDSE, NGCDF, SCNSA, TXB)$$

$Where\ P_r\ is\ Students\ Participation\ Rates$

$FDSE\ is\ Free\ Day\ Secondary\ Education$

$NGCDFis\ National\ Government\ Constituency\ Development\ Fund$

$SCNSA\ is\ Scholarships\ from\ Non\ State\ Actors$

$TXT\ is\ Textbooks$

The model to be estimated thus becomes a linear function as below;

$$P_r = \alpha + \beta_1 FDSE + \beta_2 NGCDF + \beta_3 SCNSA + \beta_4 TXB + \varepsilon$$

$Where\ \alpha\ is\ a\ Constant$

$\beta_1, \beta_2, \beta_3, \beta_4 are\ the\ coefficients$

$\varepsilon\ is\ the\ error\ term$

Responses in the questionnaires were analysed in the five-point Likert scale ranging from 'strongly agree' to 'strongly disagree'. Bell (2005) advocated the use of a weighted means score where a mean score ranging from 4 to 5 will mean that the respondents strongly agreed with the statement. A mean score ranging from 3 to 3.9 will mean that the respondents agreed with the statement. A mean score ranging from 2.5 to 2.9 will mean that the respondents were undecided on the statement. A mean score ranging from 2 to 2.4 will mean that the respondents disagreed with the statement. A mean score ranging from 1 to 2.3 will mean that the respondents strongly disagreed with the statement.

3.10 Ethical Considerations

According to the Australian Law Reform Commission and Australian Health Ethics Committee, ALRC (2001), ethical considerations are an accumulation of values and principles that address questions of what is good or bad in human affairs. Ethical

considerations in research as noted by British Educational Research Association (BERA), (2018) are a set of principles that guide how research is designed and conducted. These principles help protect the rights of research participants, maintain scientific integrity, and improve the validity of research (Gedutis, Biagetti & Ma, 2022). In order to address ethical considerations, the researcher ensured that data was not fabricated and it was honestly reported. The researcher sought voluntary informed consent from the respondents before data collection by explaining the main aim and objectives of the research and guaranteeing confidentiality and anonymity on the source of information. This was especially done by requiring the respondents not to indicate their identities on the research instruments. In abiding to the legal requirements of research, the researcher obtained official authorizations from the relevant offices.

CHAPTER FOUR

4.0 RESEARCH RESULTS

4.1 Introduction

This chapter dealt with data analysis and presentation of the study results. It is organized into the following sections; data on questionnaire return rate, respondents' background information, descriptive and inferential data analysis and results presentation in line with the four study objectives.

4.2 Questionnaire return rate

The study sought for information on Educational Subsidies and Participation Rates in Public Secondary Schools in Makueni County, Kenya**.** A total of 196 questionnaires were administered to both Principals and Deputy Principals in the sampled public secondary schools in Makueni County making a total of 392 respondents. The questionnaire return rate is presented in Table 4.1.

Table 4.1: The Distribution of the Response Return Rate

Participants	Number Administered	Response Return Rate	Percentage
Principals	196	180	91.8
Deputy Principals	196	180	91.8
Total	**392**	**360**	Av. 91.8

Table 4.1 shows the distribution of the response rate from the various study respondents. According to the information presented in Table 4.1, 180 Principals and 180 Deputy Principals responded satisfactorily to the questionnaire giving a total of 320 responses. This represented 91.8 percent for both Principals and Deputy Principal respectively. The return rates were high because the researcher took the questionnaires to the sampled public secondary schools and a time limit of two weeks was given to the respondents. After two weeks, the researcher personally went round the schools collecting the questionnaires. The researcher found the return rates satisfactory according to Kothari (2004) who suggests that

questionnaire return rate above 60 percentage is adequate for analysis and reporting. This return rate provided the required information for analysis.

4.3 Respondents' Demographic Information

The study sought information on gender, age, academic and professional qualification education, teaching and experience the length of service in the current school of both the Principals and Deputy Principals.The age of the Principals and Deputy Principals was important since schools require balanced age, wisdom, experience, compliance to policy changes and strong will. The information on the demographic information of respondents is presented in Tables 4.2 through 4.9.

4.3.1 Gender of Principals and Deputy Principals

The study sought to establish the gender of Principals and Deputy Principals who formed the sample size and the results are analyzed and presented in Table 4.2.

Table 4.2: Gender of Principals and Deputy Principals

	Principals		**Deputy Principals**	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Male	120	66.6	130	72.2
Female	60	33.4	50	27.8
Total	**180**	**100.0**	**180**	**100.0**

Table 4.2 presents the respondents' gender information. The results indicate that, majority of the Principals represented by 66.6% were male while females were 33.4%. Similarly, the study further shows that majority of Deputy Principals represented by 72.2% were male while 27.8% were female. These findings show a high gender disparity in favor of males in management in public secondary schools for both Principals and Deputy Principals in Makueni County. The information presented in the table reveal that both gender is given opportunity for school leadership in Makueni County. The distribution of school headship adheres to Ministry of Education to gender policy of a third presentation of either gender in appointments.

4.3.2 Age of Principals and Deputy Principals

This study further sought to establish the age distribution of Principals and Deputy Principals. Analysis of this parameter is as shown in Tables 4.3.

Table 4.3: Distribution of Respondents by Age

	Principals		Deputy Principals	
	Frequency	**Percentage**	**Frequency**	**Percentage**
30 and below	0	0.0	10	5.6
31-40	50	27.8	80	44.4
Above 41	130	72.2	90	50
Total	**180**	**100.0**	**180**	**100.0**

Table 4.3 presents the age distribution of the respondents. The findings reveal 27.8% and 72% of the Principals were in age bracket between 31-40 and above 41 years respectively, while 5.6%, 44.4% and 50% of the Deputy Principals fell in below 30, 31 – 40 and above 41 age brackets. It can be inferred from these results that majority of Principals and Deputy Principals in public secondary schools in Makueni County were mature to manage their schools. The distributions show that the respondents were distributed in all age groups. Most of them were young and therefore receptive and energetic enough to deliver on their mandate.

4.3.3 Highest Professional Qualification of Principals and Deputy Principals

The study further sought to find out the highest level of professional qualification attained by both the Principals and Deputy Principals. The results are shown in Table 4.3.

Table 4.4: Distribution of Principals and Deputy Principals by highest professional qualification.

	Principals		Deputy Principals	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Diploma	0	0.0	0	0
Degree	140	77.8	150	83.3
Masters	35	19.4	29	16.1
Doctorate	5	2.8	1	0.6
Total	**180**	**100.0**	**180**	**100.0**

Table 4.4 indicates that majority of Principals and Deputy Principals represented by 77.8% and 83.3% respectively were degree holders while 19.4% and 16.1% of the same groups had Master of Education Degree. A small percentage of 2.8% and 0.6% of the Principals and Deputy Principals had Doctorate Degrees. It is revealed from the results that majority of Principals and Deputy Principals have acquired high education. This indicates that all the Principals and Deputy Principals of the sampled schools had professional competence to head secondary schools.

4.3.4 Teaching Experience of Principals and Deputy Principals

The study also sought to establish the teaching experience of the respondents. The results are presented in Table 4.5.

Table 4.5: Teaching Experience of Principals and Deputy Principals

Teaching experience	**Principals**		**Deputy Principals**	
	Frequency	**Percentage**	**Frequency**	**Percentage**
10-15 years	10	5.6	30	16.7
16-20 years	100	55.6	120	66.7
20 years and over	70	38.8	30	16.6
Total	**180**	**100.0**	**180**	**100.0**

Results from Table 4.5 reveal that majority of Principals and Deputy Principals represented by 55.6% and 66.7 respectively had a teaching experience of between 16-20 years while 38.8% and 16.6 % of the same respondents had an experience of over 20years. A small number of the respondents represented by 5.6% of the Principals and 16.6% of Deputy Principals had experience between 10-15 years respectively. It can be seen from the results that respondents possessed valuable experience and knowledge to respond on issues participation rates.

4.3.5 Duration of Service in the Current Station

Further, the study sought to probe the length of time the Principals and Deputy Principals had stayed in their current stations and the results are analyzed and presented in Figure 4.1

Figure 4.1: Duration of Service in the Current Station of the Principals and Deputy Principals

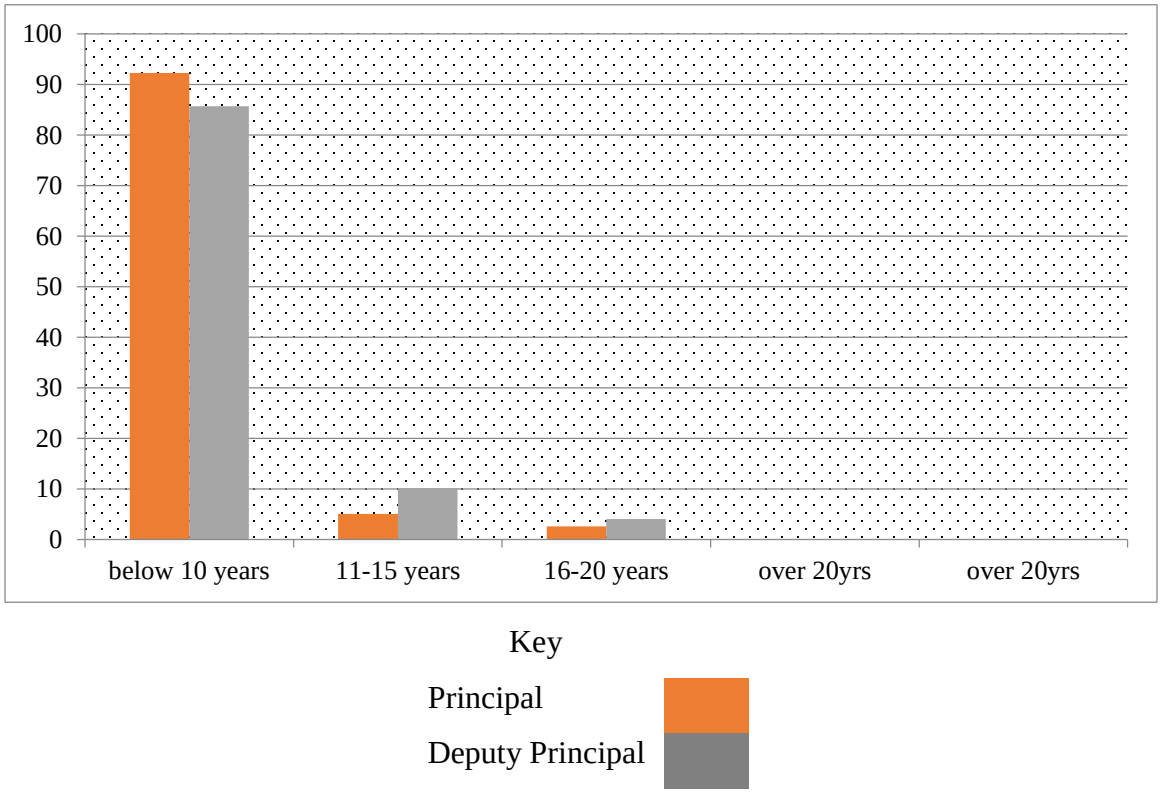


Figure 4.1 shows that majority of Principals and Deputy Principals represented by 92.3% and 85.7% had stayed in their current stations for below 10 years respectively, 2.6 % and

4.1% of the respondents had stayed in their current school for between 16-20 years while 5.1% and 10.2% of Principals and Deputy Principals respectively had stayed for between 11-15 years. None of the respondents had stayed for above 20 years. It can be observed from the results that majority of principals and Deputy Principals in public secondary schools in Makueni County had stayed in their current stations for a period of less than 10 years. It can be argued from these findings that the TSC's delocalization policy of transferring Principals and Deputy Principals who had overstayed in their stations had been done in Makueni County.

4.4 Analysis in Line with Objectives

The research aimed at accomplishing the following objectives; to determine the influence of Free Day Secondary Education (FDSE) capitation grants, government bursary funds, education financing by non-state agencies and provision of teaching and learning materials by the government on participation rates in public secondary schools in Makueni County.

4.4.1 Influence of Free Day Secondary Education (FDSE) capitation grants participation rates

The study's first objective explored the Influence of Free Day Secondary Education (FDSE) capitation grants participation rates. The Principals and Deputy Principals were asked to indicate their opinion on the influence of Free Day Secondary Education grants on Students' participation rates. They were requested to indicate their responses as; SA=Strongly Agree, A=Agree, D=Disagree, and SD=Strongly Disagree. The results were as contained in Table 4.6.

Table 4.6: Influence of Free Day Secondary Education (FDSE) capitation grants on participation rates.

	Principals								Deputy Principals							
Response	**SA**		**A**		**D**		**SD**		**SA**		**A**		**D**		**SD**	
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**
FDSE capitation increases students' participation in education in your school	150	83.3	30	16.7	0	0	0	0	160	88.9	20	11.1	0	0	0	0
Government subsidies are adequate to guarantee retention of students in school	0	0	0	0	180	100		0	0	0	0	0	180	100	0	0
FDSE capitation increases students' completion rates in your school	110	61.1	60	33.3	10	5.6	0	0	110	61.1	70	38.9	0	0	0	0
FDSE capitation reduces students' dropout rates in your school	160	88.9	20	11.1	0	0	0	0	110	61.1	60	33.3	10	5.6	0	0

The findings presented in Table 4.6 revealed that majority of Principals and Deputy Principals strongly agreed and also agreed that FDSE capitation increases students' participation in education in their schools by 150 (83.3%), 30 (16.7%), 160 (88.9%) and 20 (11.1%) respectively. All respondents disagreed that Government subsidies are adequate to guarantee retention of students in schools. The data also showed that 61.1% ,33.3% of both Principals and Deputy Principals strongly agreed and also agreed that FDSE capitation increases students' completion rates in their schools. On whether FDSE capitation grants reduce students' dropout rates in their schools, 88.9% and 61.1% of Principals and Deputy Principals respectively strongly agreed to the assertion while 11.1% and 33.3% of them agreed. A small proportion of Deputy Principals represented by 5.6% disagreed that FDSE capitation reduces students' dropout rates in their schools.

Table 4.7: Responses on the influence of FSDE capitation grants in increasing students' participation rates in schools

	Principals		**Deputy Principals**	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Highly Influenced	160	88.9	170	94.4
Influenced	20	11.1	10	5.6
Less influenced	0	0	0	0
Didn't influence	0	0	0	0
Total	**180**	**100.0**	**180**	**100.0**

The data shown in Table 4.7 indicates that 88.9% and 94.4% of the Principals and Deputy Principals felt that FSDE highly influenced the increase in students' participation rates in their schools while 11.1% and 5.6% of the Principals and Deputy Principals respectively said that FSDE influenced in increasing students participation rates in their schools.

Responses in Table 4.6 and 4.7 revealed that Free Day Secondary Education capitation grants to schools increased students' participation rates in education as well as completion

rates of students in public secondary schools. The provision of subsidies in this category was therefore influential in increasing students' participation rates in secondary schools.

4.4.2 Hypothesis Testing; Objective One

The study's first objective was to determine the influence of Free Day Secondary Education (FDSE) capitation grants on participation rates in public secondary schools in Makueni County. A corresponding Null hypothesis was stated that $\boldsymbol{H_{01}}$*: There is no statistically significant relationship between Free Day Secondary Education (FDSE) capitation grants and participation rates in public secondary schools in Makueni County, Kenya*. To establish the influence of Free Day Secondary Education (FDSE) capitation grants on participation rates in public secondary schools in Makueni County, correlational analysis was used to determine the influence and the relationship. The acceptable level of significance for the Pearson correlational coefficient was used. The value of the coefficient of the correlation (r) had the range of $-1 \leq r \leq 1$. This value was squared to obtain correlation of determination (r^2) that indicated degree of association between of Free Day Secondary Education (FDSE) capitation grants and participation rates in public secondary schools in Makueni County. A p value ($p<0.05$) showed that the results were statistically significant. Significance level (p), that forms the boundary between rejecting or upholding the Null hypothesis was used to determine significant levels. A p value ($p<0.05$) indicated that the results were statistically significant. *(P)* value greater than 0.05 led to upholding of the Null hypothesis while (*P)* value less than or equal to 0.05, led to rejecting of the Null hypothesis.

In order to confirm the status of this statement a regression analysis was conducted at 0.05 level of significance.

Regression analysis was carried between the results of FSDE capitation and the means of the indicators of participation (Dependent variable). The results were presented in Tables 4.8 and 4.9.

Table 4.8: Influence of Free Day Secondary Education (FDSE) capitation grants on participation rates in public secondary schools in Makueni county Kenya: Analysis Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.822[a]	.674	.670	.36161

a. Predictors: (Constant), FSDE Capitation grants.

Regression results in Table 4.8 reveal that the relationship between FSDE Capitation grants and participation rates was positive but moderate (R= .674) because R^2 was not equal to 0 ($R^2 \neq 0$) but within 0 and 1. An adjusted R^2 gave a clear prediction. The adjusted R square of 0.67 indicated that 67% of the variation in the participation of students in schooling in public secondary schools in Makueni County could be explained by provision of FSDE Capitation grants in financing education. To test if this analysis had significant prediction, the model significance was determined and analyzed in the ANOVA table presented in Table 4.20.

Table 4.9: Regression Coefficients of influence of FSDE capitation grants on Students' participation in education

Model		Unstandardized Coefficients		Standardized Coefficients	Hypothesis Testing	
		B	Std. Error	Beta	T	Sig
1	(Constant)	.743	.290		2.551	.014
	FSDE capitation grants	.798	.067	.821	11.964	

a. Dependent Variable: Students participation rates in school

Table 4.9 presents the regression coefficients of the independent variable (FSDE grants) guided by standardized and unstandardized coefficients (beta). It can be shown from the

analysis that FSDE capitation grant had a significant and predictive influence on the students' participation in schooling at *p value* of .014.

Results in Table 4.9 indicated that there was statistical relationship (0.014<0.05) between FSDE capitation grants and students' participation rates. Therefore, the null hypothesis which stated that there is no statistically significant relationship between Free Day Secondary Education (FDSE) capitation grants and participation rates in public secondary schools in Makueni County, Kenya was rejected at 0.05 level of significance and the alternative hypothesis which implies that there is statistically significant relationship between Free Day Secondary Education (FDSE) capitation grants and participation rates in public secondary schools in Makueni County taken was upheld. Based on the findings, a conclusion was made that Free Day Secondary Education (FDSE) capitation grants and participation rates in public secondary schools in Makueni County are statistically dependent and that Free Day Secondary Education (FDSE) capitation grants influences students' participation rates in public secondary schools in Makueni County, Kenya.

4.4.2 Influence of Bursary Funds on students' participation rates.

The study's second objective explored the influence of Bursary funds on students' participation rates. The Principals and Deputy Principals were asked to indicate their opinion on the influence of bursary funds on students' participation rates. They were requested to indicate their responses as; SA=Strongly Agree, A=Agree, D=Disagree, and SD=Strongly Disagree. The results were as contained in Table 4.8.

Table 4.10: Influence of Bursary Funds on Students' Participation Rates.

Response	Principals								Deputy Principals							
	SA		**A**		**D**		**SD**		**SA**		**A**		**D**		**SD**	
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**
Bursary awards increase participation rates of students in education	140	77.8	40	22.2	0	0	0	0	130	72.2	50	27.8	0	0	0	0
Bursaries are adequate to guarantee full participation in education.	0	0	0	0	180	100		0	0	0	0	0	180	100		0
Bursaries have reduced drop out rates in your school	120	66.6	50	27.8	10	5.6	0	0	130	61.1	40	33.6	10	5.6	0	0
Bursaries have increased completion rates of students in your school.	170	88.9	10	11.1	0	0	0	0	160	88.9	20	11.1	0	0	0	0
There is no relationship between bursaries and participation rates in education.	0	0	0	0	180	100		0	0	0	0	0	180	100		0

From Table 4.10, it is observed that 77.8% and 22. % of Principals and Deputy Principals respectively strongly agreed and also agreed respectively, that bursary awards increase participation rates of students in secondary school education. None of the Principals had contrary opinion. On their part, the Deputy Principals indicated strong agreement that bursary awards increase participation rates of students in education while 27.8 % agreed to the statement. All the respondents both Principals and Deputy Principals unanimously disagreed by 100% to the statement that bursaries are not adequate to guarantee full participation in education**.**

The Principals represented by 66.6% strongly agreed while 27.8% agreed that bursaries have reduced dropout rates in their schools. A paltry 5.6% of the Principals disagreed to the statement. In the same vein 61.1% and 33.6% of Deputy Principals strongly agreed and agreed respectively that bursaries have reduced dropout rates in their schools. Only a small number represented by 5.6% disagreed to the assertion that bursaries have reduced dropout rates in their schools.

On whether bursaries have increased completion rates of students in their school 88.9% of both Principal and Deputy Principals strongly agreed, 11.1% % respectively agreed to the statement. The statement that there is no relationship between bursaries and participation rates in education was negated by way of disagreement by all respondents who participated in the study**.**

Table 4.11: Responses on how busuries had influenced the increase in students' participation rates in schools

	Principals		Deputy Principals	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Highly influenced	170	94.4	160	88.9
Influenced	10	5.6	20	11.1
Less influenced	0	0	0	0
Not influenced	0	0	0	0
Total	**180**	**100.0**	**180**	**100.0**

The information presented in Table 4.11 revealed that 94.4% and 88.9 % of the Principals and Deputy Principals respectively were of the opinion that issuance of bursaries to students had highly influenced increase in students' participation rates in their schools while 5.6% and 11.1% of the Principals and Deputy Principals said that issuing of bursaries had influenced in increasing students participation rates in their schools.

4.4.3 Hypothesis testing; Objective Two

The second objective was to establish the influence of government bursary funds on participation rates in public secondary schools in Makueni County. A corresponding Null hypothesis was stated that $\boldsymbol{H_{01}}$***:*** *There is no statistically significant relationship between government bursary funds and participation rates in public secondary schools in Makueni County, Kenya*.

Regression analysis was carried between the results of government bursary funds and the Means of the indicators of participation (Dependent variable). The results were presented in Tables 4.21 and 4.22.

Table 4.12: Influence of government bursary funds on participation rates in public secondary schools in Makueni county Kenya analysis Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.824[a]	.679	.680	.36165

a. Predictors: (Constant), **Government bursary funds**

Regression results in Table 4.12 indicate that the relationship between government bursary funds and participation rates was positive but moderate (R= .679) because R^2 was not equal to 0 ($R^2 \neq 0$) but within 0 and 1. An adjusted R^2 gave a clear prediction. The adjusted R square of 0.68 indicated that 68% of the variation in the participation of students in schooling in public secondary schools in Makueni County could be explained by provision of government bursary funds in financing education. To test if this analysis had significant prediction, the model significance was determined and analyzed in the ANOVA table presented in Table 4.13.

Table 4.13: Regression Coefficients of influence of government bursary funds on Students' participation in education

Model		Unstandardized Coefficients		Standardized Coefficients	Hypothesis Testing	
		B	Std. Error	Beta	T	Sig
1	(Constant)	.742	.290		2.551	.015
	Government bursary funds	.798	.067	.821	11.964	

a. Dependent Variable: Students participation rates in school

Table 4.13 presents the regression coefficients of the independent variable government bursary funds guided by standardized and unstandardized coefficients (beta). It can be shown from the analysis that government bursary funds had a significant and predictive influence on the students' participation in schooling at *p value* of .015.

Results in Table 4.13 indicated that there was statistical relationship (0.015<0.05) between government bursary funds and students' participation rates. Therefore, the null hypothesis which stated that there is no statistically significant relationship between government bursary funds and participation rates in public secondary schools in Makueni County, Kenya was rejected at 0.05 level of significance and the alternative hypothesis which implies that there is statistically significant relationship between government bursary funds and participation rates in public secondary schools in Makueni County taken was upheld. Based on the findings, a conclusion was made that government bursary funds and participation rates in public secondary schools in Makueni County are statistically dependent and that government bursary funds influences students' participation rates in public secondary schools in Makueni County, Kenya.

4.4.3 Influence of Financing by Non-State Actors on students' participation rates.

The third objective investigated the influence of financing by Non-State Actors on students' participation rates. Both the Principals and Deputy Principals were requested to indicate their opinion on the influence of financing by Non-State Actors on students' participation on Students participation rates. They were requested to indicate their responses as; SA=Strongly Agree, A=Agree, D=Disagree, and SD=Strongly Disagree. The results were as contained in Table 4.14

Table 4.14: Responses from principals on the influence of financing by Non-State Actors on students' participation rates.

Statement	SA	A	D	SD	Total	Mean	Std dev
Financing by non-state agencies has improved the frequency of students' school attendance	50.0%	40%	8%	2%	100.0%	4.07	0.997
Financing by non-state agencies is adequate to guarantee full participation of needy students in your school	8.2%	4.8%	58%	29%	100.0%	3.07	0.948
Completion rates have improved due to financing education by non-state agencies.	50.2%	46.8%	1.2	1.8	100.0%	5.19	.0998
There is strong link between financing education by non-state agencies and participation rates of students in your school	80.0%	17.0%	1.6	1.4	100.0%	4.96	0.912

The results from Table 4.14 show that 2.0% of the principals strongly disagreed, 8% disagreed whether the financing by non-state agencies has improved the frequency of students' school attendance. Majority of Principals represented by 40% agreed and 50% strongly agreed that Financing by non-state agencies has improved the frequency of students' school attendance. The mean also confirms that majority of respondents agreed (mean = 4.07) that financing by non-state agencies has improved the frequency of students' school attendance. The standard deviation for this mean which is 0.997 indicates that the principals were converging in their views.

The results also reveal that 29% of Principals strongly disagreed, 58% disagreed on the opinion that financing by non-state agencies is adequate to guarantee full participation of needy students in their schools. Few of Principals represented by 4.8% agreed and 8.2% strongly agreed that financing by non-state agencies is adequate to guarantee full participation of needy students in their schools. The mean also confirms that majority of the Principals did not support the opinion agreed (mean = 3.07) The standard deviation (1.948) also confirms that there was actually divergence in their responses in regard to this statement.

It can be observed from the results that 1.8% of the respondents strongly disagreed while 1.2% disagreed. Majority of them represented by 46.8% agreed and 50.2% strongly agreed that completion rates have improved due to financing education by non-state agencies. The mean also confirms that majority of them agreed (mean = 5.19) that completion rates have improved due to financing education by non-state agencies. The standard deviation (0.998) of this mean indicates there was convergence in their views. It can be concluded from the findings that the completion rates improved due to financing education by non-state agencies in public secondary schools in Makueni County.

The results also show that 1.4% of Principals strongly disagreed that there is strong link between financing education by non-state agencies and participation rates of students in their school while 1.6 0% disagreed to the opinion. Majority of the Principals represented by 80% strongly agreed and 17% agreed that there is strong link between financing education by non-state agencies and participation rates of students in their schools. The mean also confirm that majority of Principals agreed (mean = 4.96) that there is strong link between financing education by non-state agencies and participation rates of students in their schools while the standard deviation (0.912) indicate that there was convergence of views.

Table 4.15: Responses from deputy principals on the influence of financing by Non State Actors on students' participation rates.

Statement	SA	A	D	SD	Total	Mean	Std dev
Financing by non-state agencies has improved the frequency of students' school attendance	54%	26%	16.8%	3.2%	100.0%	4.16	0.996
Financing by non-state agencies is adequate to guarantee full participation of needy students in your school	0	0	59.1%	41.9%	100.0%	4.04	0.944
Completion rates have improved due to financing education by non-state agencies.	59%	31%	8%	2%	100.0%	4.89	.0994
There is strong link between financing education by non-state agencies and participation rates of students in your school	60%	38%	2%	0	100.0%	4.76	0.918

The results indicate that 3.2% of the Deputy Principals strongly disagreed and 16.8% disagree on the opinion that financing by non-state agencies has improved the frequency of students' school attendance their schools. Majority of Deputy Principals represented by 54% agreed and 26% strongly agreed that financing by non-state agencies has improved the frequency of students' school attendance their schools. These findings are confirmed by the mean which also show that majority of Deputy Principals agreed (mean = 4.16) that financing by non-state agencies has improved the frequency of students' school attendance their schools. The standard deviation (0.996) on its part indicate that majority of the respondents were converging in their views.

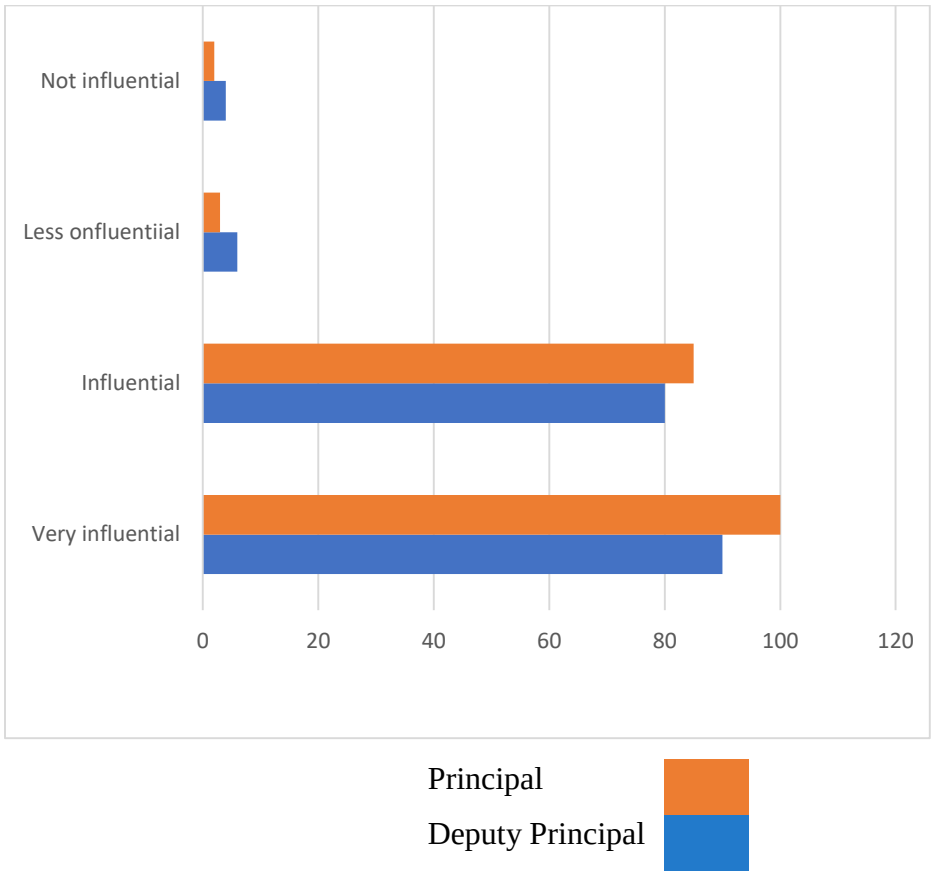
The results show that majority of Deputy Principals represented by 41.9% strongly disagreed and 59.1% disagreed that financing by non-state agencies agencies is adequate

to guarantee full participation of needy students in their schools. These findings are also confirmed by the mean which indicate that majority of teachers agreed (mean = 4.04) that financing by non-state agencies was adequate to guarantee full participation of needy students in their schools. The standard deviation (0.944) of the mean indicates that the Deputy Principals were converging in their views.

It is observable from the results that 2% of Deputy Principals strongly disagreed while 8% disagreed on the view that completion rates have improved due to financing education by non-state agencies. Majority of the Deputy Principals represented by 59% strongly agreed and 31% agreed that completion rates have improved due to financing education by non-state agencies. This opinion is further confirmed by the computed mean which show that majority of Deputy Principals agreed (mean = 4.89) that completion rates have improved due to financing education by non-state agencies. Their principals have adopted a participatory approach in managing school activities. Generally, the views converge at (SD=0.994).

The results show that 2% of Deputy Principals disagreed with the view that there is strong link between financing education by non-state agencies and participation rates of students in their schools Avery high number represented by 60% strongly agreed and 38% agreed that there is strong link between financing education by non-state agencies and participation rates of students in their schools. These findings are also confirmed by the mean which indicate that majority of the Deputy Principals agreed (mean = 4.76) that there is strong link between financing education by non-state agencies and participation rates of students in their schools. The standard deviation (0.918) of the mean indicates that the Deputy Principals were converging in their views.

Figure 4.2: Responses on how financing by Non-State Actors had influenced students' participation rates



The findings in Figure 4.2 reveal that 4%, 6%, 2% and 3% of Principals and Deputy Principals respectively were of the view that financing by Non-State Actors rates was not influential and also less influential in influencing students' participation rates in education. A Significant number represented by 90%,80%,100% and 85% of Principals and Deputy Principals were of the view that Non-State Actors rates was were very influential and also influential in influencing students' participation rates in education. The findings indicate that all respondents view that financing by Non-State Actors rates influenced students' participation rates in education.

4.4.4 Hypothesis Testing; Objective Three

The third objective was to establish the influence of determine the influence of education financing by non-state agencies on participation rates in public secondary schools in

Makueni county. A corresponding Null hypothesis was stated that $\boldsymbol{H_{01}}$***: There is no statistically significant relationship between financing education by non-state agencies and participation rates in public secondary schools in Makueni County, Kenya***. Regression analysis was carried between the results of financing by non-state agencies and the Means of the indicators of participation (Dependent variable) The results were presented in Tables 4.23 and 4.24.

Table 4.16: Influence of financing by non-state agencies on participation rates in public secondary schools in Makueni county Kenya analysis Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.794[a]	.630	.630	.36156

a. Predictors: (Constant), financing by non-state agencies

Regression results in Table 4.16 indicate that the relationship between financing by non-state agencies and participation rates was positive but moderate (R= .794) because R^2 was not equal to 0 ($R^2 \neq 0$) but within 0 and 1. An adjusted R^2 gave a clear prediction. The adjusted R square of 0.630 indicated that 63% of the variation in the participation of students in schooling in public secondary schools in Makueni County could be explained by provision by non-state agencies in financing education. To test if this analysis had significant prediction, the model significance was determined and analyzed in the ANOVA table presented in Table 4.17.

Table 4.17: Regression Coefficients of influence of financing by non-state agencies on Students' participation in education

Model		Unstandardized Coefficients		Standardized Coefficients	Hypothesis Testing	
		B	Std. Error	Beta	T	Sig
1	(Constant)	.744	.290		2.551	.019
	Financing by non-state agencies	.799	.067	.821	11.964	

a. Dependent Variable: Students participation rates in school

Table 4.17 presents the regression coefficients of the independent variable financing by non-state agencies guided by standardized and unstandardized coefficients (beta). It can be revealed from the analysis that financing by non-state agencies had a significant and predictive influence on the students' participation in schooling at *p value* of .019.

Results in Table 4.17 indicated that there was statistical relationship (0.019<0.05) between financing by non-state agencies and students' participation rates. Therefore, the null hypothesis which stated that there is no statistically significant relationship between financing education by non-state agencies and participation rates in public secondary schools in Makueni County, Kenya was rejected at 0.05 level of significance and the alternative hypothesis which implies that there is statistically significant relationship between financing education by non-state agencies and participation rates in public secondary schools in Makueni County was upheld. Based on the findings, a conclusion was made that financing education by non-state agencies and participation rates in public secondary schools in Makueni County are statistically dependent and that financing education by non-state agencies influences students participation rates in public secondary schools in Makueni county, Kenya.

4.4.5 Influence of provision of Teaching and learning materials on students' participation rates.

The fourth objective investigated the influence of teaching and learning materials on students' participation rates. The Principals and Deputy Principals were requested to indicate their opinion on the influence of influence of teaching and learning materials on students' participation rates. They were asked to indicate their responses as; SA=Strongly Agree, A=Agree, D=Disagree, and SD=Strongly Disagree. The results were as contained in Table 4.18.

Table 4.18: Responses from principals on the Influence of provision of Teaching and learning materials on students' participation rates.

Statement	SA	A	D	SD	Total	Mean	Std dev
Provision of teaching and learning resources by the government has increased participation rates education by students in your school.	40%	36%	20.8%	3.2 %	100.0%	4.15	0.992
Provision of teaching and learning resources by non-state agencies has increased participation rates education by students in your school.	20%	10%	68.1%	1.9%	100.0%	3.98	0.844
The teaching and learning resources provided are adequate to all students in your school	0	0	88%	12%	100.0%	4.87	.0990
There is strong link between provision of teaching and learning materials and students' participation rates in education	60%	35%	3%	2%	100.0%	4.72	0.915

Table 4.18 shows data on responses of Principals' views that provision of Teaching and learning materials influence students' participation rates in public secondary schools in Makueni County. The results indicate that majority of the Principals represented by 40% strongly agreed and 36% agreed that Provision of teaching and learning resources by the government has increased participation rates in education by students in their schools. 20% of the Principals disagreed while 3.2 % disagreed on that teaching and learning materials influence students' participation rates in public secondary schools in Makueni County. The mean of 4.15 also confirms that most of the Principals agreed that Teaching and Learning materials influence students' participation rates in public secondary schools in Makueni County while the standard deviation (0.992) indicates convergence of views of the Principals.

The responses to the statement that provision of teaching and learning resources by non-state agencies has increased participation rates in education by students in their schools show that most of the Principals represented by 68.1% disagreed and 1.9% strongly agreed while 20% of the Principals strongly agreed and 10% agreed that provision of teaching and learning resources by non-state agencies has increased participation rates education by students in their schools. They indicated that non state agencies rarely assist schools with books. The mean of 3.98 similarly confirms that most of the Principals concur with the statement that Provision of teaching and learning resources by non-state agencies has increased participation rates education by students in their schools while the standard deviation of 0.844 shows a convergence of views on that statement.

Findings from the statement that whether the teaching and learning resources provided are adequate to all students in their schools revealed that majority of the Principals represented by 88% strongly disagreed and 12% disagreed with the statement while non either agreed or strongly agreed or strongly agreed to the view. The mean 4.87 confirms that majority of Principals agreed the teaching and learning resources provided are not adequate to all students in their schools while the standard deviation of 0.990 indicates that the Principals had converging views.

Majority of Principals represented by 60% strongly agreed and 35% agreed that there is strong link between provision of teaching and learning materials and students' participation rates in public secondary schools. The findings also reveal that 3% of the Principals strongly disagreed while 2% disagreed with the statement. The mean obtained of 4.72 from the analysis indicate that most of the Principals agreed that there is strong link between provision of teaching and learning materials and students' participation rates in education while the analyzed standard deviation of 0.915 confirms that the views were converging.

Table 4.19: Responses from Deputy Principals on the Influence of provision of teaching and learning materials on students' participation rates.

Statement	SA	A	D	SD	Total	Mean	Std dev
Provision of teaching and learning resources by the government has increased participation rates education by students in your school.	50%	30%	15%	5 %	100.0%	4.10	0.882
Provision of teaching and learning resources by non-state agencies has increased participation rates education by students in your school.	15%	20%	63.1%	1.9%	100.0%	3.95	0.842
The teaching and learning resources provided are adequate to all students in your school	0	0	90%	10%	100.0%	4.86	.0899
There is strong link between provision of teaching and learning materials and students' participation rates in education	70%	25%	2%	3%	100.0%	4.72	0.915

The results in Table 4.19 indicate that majority of the Deputy Principals represented by 50% strongly agreed and 30% agreed that provision of teaching and learning resources by the government has increased participation rates education by students in their school. 15% of the Deputy Principals disagreed while 5% strongly disagreed on that teaching and learning materials influence students' participation rates in public secondary schools in Makueni County. The mean of 4.10 also confirms that most of the Deputy Principals agreed that Teaching and learning materials influence students' participation rates in public secondary schools in Makueni County while the standard deviation (0.882) indicates convergence of views of the Deputy Principals.

The responses to the statement that Provision of teaching and learning resources by non-state agencies has increased participation rates education by students in their schools show that most of the Deputy Principals represented by 63.1% disagreed and 1.9% strongly disagreed while 15% of the Deputy Principals strongly agreed, 20% agreed respectively that provision of teaching and learning resources by non-state agencies has increased participation rates in education by students in their schools. They indicated that non state agencies rarely assist schools with books and other teaching and learning materials. The mean of 3.95 similarly confirms that most of the Deputy Principals concur with the statement that provision of teaching and learning resources by non-state agencies has increased participation rates in education by students in their school while the standard deviation of 0.842 shows a convergence of views on that statement.

Findings from the statement that the teaching and learning resources provided are adequate to all students in their schools revealed that majority of the Deputy Principals represented by 90% disagreed and 10% strongly disagreed to the statement while non either agreed or strongly agreed to the view. The mean 4.86 confirms that majority of the Deputy Principals agreed that the teaching and learning resources provided are not adequate to all students in their schools while the standard deviation of 0.899 indicates that the Deputy Principals had converging views.

Majority of Deputy Principals represented by 70% strongly agreed and 25% agreed that there is strong link between provision of teaching and learning materials and students' participation rates in public secondary schools. The findings also reveal that 2% of the Deputy Principals strongly disagreed while 3% disagreed with the statement. The mean obtained of 4.72 from the analysis indicate that most of the Deputy Principals agreed that there is strong link between provision of teaching and learning materials and students' participation rates in education while the analyzed standard deviation of 0.915 confirms that the views were converging.

Table 4.20: Responses on how teaching and learning resources had influenc in increasing students' participation rates in schools.

	Principals		**Deputy Principals**	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Highly influenced	162	90	168	93.3
Influenced	18	10	12	6.7
Less influenced	0	0	0	0
Not influenced	0	0	0	0
Total	**180**	**100.0**	**180**	**100.0**

The information presented in Table 4.20 revealed that 90% and 93.3% of the Principals and Deputy Principals respectively were of the opinion that teaching and learning resources had highly influenced in increasing students' participation rates in their schools while 10% and 12% of the Principals and Deputy Principals said that teaching and learning resources had influenced in increasing students' participation rates in schools. The analysis indicated that teaching and learning resources influenced students' participation rates in schools in public secondary schools in Makueni county Kenya.

4.4.6 Hypothesis Testing; Objective Four

The fourth objective was to examine the influence of provision of teaching and learning materials by the government on participation rates in public secondary schools in Makueni

County. A corresponding Null hypothesis was stated that $\boldsymbol{H_{01}}$***: There is no statistically significant relationship between provision of teaching and learning materials by the government and participation rates in public secondary schools in Makueni County, Kenya.*** Regression analysis was carried between the results of provision of teaching and learning materials by the government and the Means of the indicators of participation (Dependent variable). The results were presented in Tables 4.21 and 4.22

Table 4.21: Influence of provision of teaching and learning materials by the government on participation rates in public secondary schools in Makueni county Kenya analysis Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.766[a]	.586	.590	.36146

a. Predictors: (Constant), provision of teaching and learning materials by the government

Regression results in Table 4.21 indicate that the relationship between provision of teaching and learning materials by the government and participation rates was positive but moderate (R= .766) because R^2 was not equal to 0 ($R^2 \neq 0$) but within 0 and 1. An adjusted R^2 gave a clear prediction. The adjusted R square of 0.59 indicated that 59% of the variation in the participation of students in schooling in public secondary schools in Makueni County could be explained by provision of teaching and learning materials by the government. To test if this analysis had significant prediction, the model significance was determined and analyzed in the ANOVA table presented in Table 4.22.

Table 4.22: Regression Coefficients of Influence of Provision of Teaching and Learning Materials by the Government on Students' Participation in Education

Model		Unstandardized Coefficients		Standardized Coefficients	Hypothesis Testing	
		B	Std. Error	Beta	T	Sig
1	(Constant)	.743	.290		2.551	.022
	Provision of teaching and learning materials by the government	.799	.067	.821	11.984	

a. Dependent Variable: Students participation rates in school

Table 4.22 presents the regression coefficients of the independent variable provision of teaching and learning materials by the government guided by standardized and unstandardized coefficients (beta). It can be revealed from the analysis that provision of teaching and learning materials by the government had a significant and predictive influence on the students' participation in schooling at *p value* of .022.

Results in Table 4.22 indicated that there was statistical relationship (0.022<0.05) between provision of teaching and learning materials by the government and students' participation rates. Therefore, the null hypothesis which stated that there is no statistically significant relationship between provision of teaching and learning materials by the government and participation rates in public secondary schools in Makueni County, Kenya was rejected at 0.05 level of significance. The alternative hypothesis which implies that there is statistically significant relationship between provision of teaching and learning materials by the government funds and participation rates in public secondary schools in Makueni County was therefore upheld. Based on the findings, a conclusion was made that provision of teaching and learning materials by the government and participation rates in public secondary schools in Makueni County are statistically dependent and that provision of

teaching and learning materials by the government influences students' participation rates in public secondary schools in Makueni County, Kenya.

4.4.7 Analysis of Participation Rates: (Dependent Variable)

The research also collected information on indicators of participation rates of students in public secondary schools in Makueni County Kenya namely access, student retention and students completion rates. The principals were requested to indicate their opinion on the influence of educational subsidies and students' participation rates in education in public secondary schools in Makueni County, Kenya. They were asked to indicate their responses as; SA=Strongly Agree, A=Agree, D=Disagree, and SD=Strongly Disagree. The results were as contained in Table 4.23- 4.25.

4.4.8 Access to Education

Table 4.23: Principals' responses on influence of educational subsidies and students' access to education in public secondary schools in Makueni County, Kenya.

Statement	SA	A	D	SD	Total	Mean	Std dev
Education subsidies encourage students' access to secondary education	90%	10%	0	0	100.0%	4.79	0.399
Subsidies have generally improved students access to public education	80	20	0	0	100.0%	4.82	.799
Means						**4.805**	**0.599**

Results revealed in Table 4.23 indicate that majority of the Principals represented by 90% strongly agreed and 10% agreed that education subsidies encourage student's access to secondary education. None of the Principals negated that by way of strongly disagreeing or disagreeing to the statement. The mean 4.79 confirms that majority agree while the standard deviation of 0.399 indicates that the principals had converging views.

Majority of Principals represented by 80% strongly agreed and 20% agreed that subsidies have generally improved students access to public education. The findings also reveal that none of the Principals strongly disagreed or disagreed to the statement. The mean obtained of 4.82 from the analysis indicate that most of the Principals agreed that subsidies have generally improved students access to public education while the analyzed standard deviation of 0.799 confirms that the views were converging.

4.4.9 Students' Retention in Education

Table 4.24: Principals responses on influence of educational subsidies and students' retention in education in public secondary schools in Makueni County, Kenya.

Statement	SA	A	D	SD	Total	Mean	Std dev
Education subsidies have seen reduction of dropping out school.	70%	30%	0	0	100.0%	4.79	0.477
Subsidies have generally improved students access to public education	60	40	0	0	100.0%	4.99	.499
Means						**4.89**	**0.488**

Results presented in Table 4.24 reveal that majority of the Principals represented by 70% strongly agreed and 30% agreed that education subsidies have generally reduced the number of students dropping out of school. students. None of the respondents had a contrary view to the statement. The mean 4.79 confirms that majority held the same view while the standard deviation of 0.477 indicates that the Principals had converging views.

Majority of Principals represented by 60% strongly agreed and 40% agreed that subsidies have generally improved students access to public education. The findings also reveal that none of the Principals strongly disagreed or disagreed with the statement. The mean obtained of 4.99 from the analysis indicate that most of the Principals agreed that Subsidies

have generally improved students access to public education while the analyzed standard deviation of 0.499 confirms that the views were converging.

4.4.10 Students' completion rates in education

Table 4.25: Principals' responses on influence of educational subsidies on students' completion rates in education in public secondary schools in Makueni County, Kenya.

Statement	SA	A	D	SD	Total	Mean	Std dev
Education subsidies have sustained students in school upto completion	65%	35%	0	0	100.0%	4.77	0.499
Dropout has reduced due to education subsidies which has enhanced completion rates	75	25	0	0	100.0%	4.98	.498
Means						**4.875**	**0.499**

Table 4.25 indicate that majority of the Principals represented by 65% strongly agreed and 35% agreed that education subsidies have sustained students in school upto completion of education. None of the Principals had a contrary view to the statement. The mean 4.77 confirms that majority were in agreement while the standard deviation of 0.499 indicates that the principals had converging views.

Majority of Principals represented by 75% strongly agreed and 25% agreed that dropout has reduced due to education subsidies which has enhanced completion rates. The analysis also reveal that none of the Principals strongly disagreed or disagreed with the statement. The mean obtained of 4.98 from the analysis indicate that most of the Principals agreed that subsidies have generally improved students access to public education while the analyzed standard deviation of 0.499 confirms that the principals' views were converging.

4.4.11 Average participation rates of selected sampled public secondary schools

The research also did average continuum of the means and standard deviations of the participation indicators and obtained the results presented in Table 4.26.

Table 4.26: Average participation rates of selected sampled public secondary schools

Variable	Mean	Std dev
Access	4.805	0.599
Retention	4.89	0.488
Completion	4.875	0.499
Means	**4.86**	**0.529**

The data presented in Table 4.26 reveal that educational subsidies influenced participation rates of students in education in terms of access, retention and completion rates of students in public secondary schools in Makueni County, Kenya. The mean obtained of 4.86 from the analysis indicate that most education subsidies greatly influenced students' participation in education while the analyzed standard deviation of 0.529 confirms that the views of the Principals on indicators were converging.

4.4.12 Responses from interview schedule

In the open interview schedules, the Sub-County Directors of Education were asked to briefly mention ways in which the government supports educational funding for secondary schools in their respective Sub-Counties. Free Day Secondary School Education (FSDE) emerged as one of the prominent ways mentioned by the Sub-County Directors of Education where the government funds students to the tune of Kshs 22,224 per year to assist learners in their education. It was noted that the other way was allocation of Bursary funds from the Ministry of Education, scholarships and National Government Constituency Development fund (NG-CDF). There were other ways mentioned although not by all the sub-county directors.

When asked to mention some stakeholders who participate in financing education for students in secondary schools within their sub-counties, majority of respondents outlined

the Government through the Ministry of Education, Non-Governmental organizations, Faith Based Organizations and even international agencies like UNESCO, Rotary international and others. For instance, one respondent provided this response, *"In my sub-county, there are Non state agencies like non-governmental organizations, Faith Based organizations, international funding agencies like Rotary international who come to assist students with school fees as a way of financing their education".*

When probed to explain in what ways this financing improves access to education of the students in the sub-county the directors responded overwhelmingly that FDSE capitation increases students' students' participation in education in school in their respective sub-counties. They also agreed that education subsidies encourage students' access to secondary education and that Education subsidies have generally improved students access to public education.

On the issue of the relationship between education subsidies and retention of students in schools, one director responded "*Education subsidies have seen reduction of dropping out of school and they have generally improved students' retention to schools since they are not send home for school fees'*

The respondents were also asked to comment on how education subsidies assist in students' completion rates. Majority of them responded by opining that subsidies ensure students do not repeat classes due to lack of fees leading to high student completion rates. Another one said "*Education subsidies ensure that students are kept in school and no students miss exams and classes due to lack of fees payment which has influenced completion rates."*

From the fore going it was evident that education subsidies were a key factor in influencing students' participation education in public secondary Schools in Makueni County Kenya.

4.4.13 Regression Results

Regression analysis was carried for the four independent variables so as to draw conclusion by topic on the influence of educational subsidies on students' participation rates in

education in public secondary schools. The regression results presented in Table 4.27 reveal that the relationship between education subsidies and participation rates was positive but moderate (R= .64) because R^2 was not equal to 0 ($R^2 \neq 0$) but within 0 and 1. An adjusted R^2 gave a clear prediction. The average adjusted R square of 0.64 indicated that 64% of the variation in the participation of students in schooling in public secondary schools in Makueni County could be explained by provision of education subsidies in financing education.

From the table, it can be shown from the analysis that education subsidies had a significant and predictive influence on the students' participation in schooling at *p value* of .0175. Results in Table 4.27 indicated that there was statistical relationship (0.0175<0.05) between educational subsidies and students' participation rates. Based on the findings, a conclusion was made that educational subsidies and participation rates in public secondary schools in Makueni County are statistically dependent and that educational subsidies influence students' participation rates in public secondary schools in Makueni County, Kenya.

Table 4.27: Influence of Educational Subsidies on Participation Rates in Public Secondary Schools in Makueni County

Variable	**R**	**Adjusted R square**	**Level of significance *p-value***
FDSE capitation grants	0.882	0.67	0.014
Government bursary funds	0.824	0.68	0.015
Education financing by non-state actors	0.794	0.63	0.019
Provision of teaching and learning materials	0.766	0.59	0.022
Average	**0.80**	**0.64**	**0.0175**

From table 4.27, it can be noted that government bursary funds had the most influence on participation rates, this is because they target cases of needy students who may have not fully participated in education were it not for the bursaries. Bursaries are closely followed by capitation grants that are given equally to all students in public secondary schools irrespectively of their economic background. Financing by non-state actors comes third. The influence is abit lower that that of the government owingto the fact that, the financing by non-state actors may not match that of the government. The lastly interms of influence is the provision of teaching and learning materials. This is largely because few learners will be sent home due to lach of teaching and lerning materials compared to those who may be sent home due to lack of school fees.

CHAPTER FIVE

5.0 DISCUSSION AND INTERPRETATION OF RESEARCH FINDINGS

5.1 Introduction

This chapter discusses and interprets the study findings as per research objectives and hypothesis. The study had four objectives namely: To determine the influence of Free Day Secondary Education (FDSE) capitation grants, government bursary funds, financing by non-state agencies and provision of teaching and learning materials by the government on participation rates in public secondary schools in Makueni County, Kenya. The corresponding hypothesis were that: There is no statistically significant relationship between Free Day Secondary Education (FDSE) capitation grants, government bursary funds, education financing by non-state agencies and provision of teaching and learning materials by the government and participation rates in public secondary schools in Makueni County, Kenya. The chapter discusses the research study's key findings as underpinned in the literature reviewed in the study.

5.2 Influence of Free Day Secondary Education (FDSE) capitation grants on students' participation rates

The first objective of the study was to determine the influence of Free Day Secondary Education (FDSE) capitation grants on students' participation rates in public secondary schools in Makueni County. From Table 4.6, all principals (represented by 83.3% strongly agreed and 16.7% agreed). This was in concurrence with majority of Deputy Principals in the same Table represented by 88.9% strongly agreed and 11.1 % agreed that FSDE capitation increases students' participation rates in education. On whether Government subsidies are adequate to guarantee retention of students in school, both Principals and Deputy Principals negated the statement and said government subsidies were not adequate to guarantee retention of students in the school.

On whether FSDE capitation increases students' completion rates in schools, majority of Principals represented by 33.3% agreed and 61.1% strongly agreed concurring with majority of Deputy Principals' views in the same table represented by 38.9% who agreed

and 61.1% who strongly agreed that FSDE capitation increases students' completion rates in public secondary schools.

The results also revealed that majority of Principals represented by 11.1% agreed and 88.9% strongly agreed in Table 4.6 that FSDE capitation reduces student's dropout rates. This concurs with Deputy Principals' views as represented by 33.3% who agreed and 61.1 % who strongly agreed in Table 4.6 that FSDE capitation reduces students' dropout rates. With this concurrence of evidence, it can therefore be concluded that FSDE influences students' participation rates in public secondary schools in Makueni County. The results shown in Table 4.6 indicate that majority of the Principals and Deputy Principals represented by 88.9% and 94.4% strongly claimed that FSDE was very influential in determining students' participation rates in education in Makueni County.

Further, the results show that majority of Principals in Table 4.15 represented by 90% strongly agreed that education subsidies encourage students access to education. On the same note 80% of the Principals held the view that subsidies generally improved students access to education.

Data from interview schedule confirmed that indeed FDSE capitation financing increased participation rates of students in school in terms of access retention and completion rates. On the same note interview schedules revealed that Education subsidies largely increased students. With this concurrence of evidence, it can therefore be concluded that FSDE influences students' participation in education.

Inferential statistics results in Table 4.19 indicate that there was positive but moderate (R= .674). Additionally, t test results revealed that there was statistical relationship ($0.014<0.05$) between FSDE grant financing and students' participation in education. Based on the results, there was overwhelming evidence to reject the null hypothesis and accept the alternative hypothesis. It was therefore concluded that there was positive but moderate relationship between FSDE financing and students' participation rates in education in Makueni County Kenya.

FDSE capitation grant financing is one of the ways of financing education in Kenya. Financing of education has been recognized all over the world as one way of enhancing students' participation rates in education. Many economists have treated education both as private good in which case it is viewed as an investment that benefits individuals in their private capacities and as a public or social good which benefits societies in their entirety (Psacharopoulos 2014, Psacharopoulos and Patrinos 2002, Montenegro and Patrinos 2014). Education produces externalities which are benefits of education to societies and that go beyond the benefits to the individual being educated. It is on the basis of these important externalities, that provision of education requires a public subsidy to ensure that it is "produced" in socially optimal quantities. This assertion is in concurrence with the findings of the current study that the government provision of subsidies enables individuals to acquire education.

According to UNESCO (2018), these capitation grants are intended to bolster the effective management of the public secondary schools by providing finances for various needs, such as procurement teaching and learning materials, administrative costs of running schools, paying personal emoluments for school workers and other school-related expenses. According to Deffous, De Grauwe and Lugaz (2021), the grants are aimed at mitigating financial barriers to education, improving school accessibility, and increasing student participation in education. They constitute part of the government's efforts to the provision of free and quality education in secondary schools and are usually disbursed on a per-student basis, to ensure equal funding across the various schools across the country different schools irrespective of their location or socioeconomic status. The UNESCO report and the postulation by Deffous, De Grauwe and Lugaz (2021) blends well with the findings of the current study that, by providing capitation grants,participation in education increases.

Studies done in United Kingdom by Dearden, Emmerson, Fragne and Meghir (2014) established that, the subsidy has had both a significant and positive impact on post-compulsory secondary education with participation among eligible young people estimated as 4.5 percentage points higher than those without subsidies. Education subsidies therefore

have an impact on participation in education. These findings concur with the findings of this study that subsidizing education increases the level of participation of students in schooling.

According to a study done in Vietnam by Tuan, Nguyen, Phuong and Khuong (2020) on the effect of tuition fee reduction and education subsidy on school enrollment, education subsidies have a great impact on school attendance and completion. The study examined the impact of two education incentive policies including tuition fee reduction and education subsidy on secondary-school enrollment of children in Vietnam. The study under review established that, the impact of these policies vary according to different groups of students with a greater effect felt by learners from households in the ethnic minority groups, rural areas, poor and low-income settings. This is in agreement with the findings of the current study that, FDSE capitation grants given to students by the government had an effect of ensuring students from poor backgrounds remain in school. The findings of the reviewed study conclude that these education incentive programs are an effective way to encourage children to enroll and get retained in school, especially in low- and middle-income countries. This is in tandem with the findings of the current study which concludes that, there was a positive but moderate relationship between FSDE financing and students' participation rates in education in terms of access, retention and completion rates in Makueni County Kenya.

A study by UNICEF (2018) in Rwanda revealed that, the government has the highest expenditure in education in East Africa at 38% of GDP per capita on secondary education leading to a significant increase of 22 percent in lower and upper secondary enrollment between 2011 and 2018. However, despite all this, there has been poor participation in education with drop-outs increasing in public secondary schools from 11.6 per cent to 14.7 per cent during the same period (UNESCO-UIS, 2019). This revelation rhymes with the findings of the current study that established that though capitation grants by the government increase participation in education, they are not adequate to guarantee completion of secondary school education.

The findings of this study further concur with a study done by Mwangi (2018) on the influence of free day secondary education on completion rates in public secondary schools in Kitui County which established that FDSE subsidy has increased students' completion rates in public day secondary schools. This study demonstrated that FSDE was a key pillar of enhancing access, retention and completion rates of students in schools. The findings of the current study support the idea that Government of Kenya should continue funding education to enhance participation rates of the students in schooling.

5.3 Influence of Bursary funds on students' participation rates.

The second objective of the study was to determine the influence of Bursary funds on students' participation rate in public secondary schools in Makueni County. From Table 4.8, a big number of Principals (represented by 77.8 % strongly agreed and 22.2% agreed) concurred with majority of Deputy Principals in the same Table represented by 72.2% who strongly agreed and 27.8 % who agreed that bursary awards increase participation rates of students in education. On whether bursary subsidies are adequate to guarantee retention of students in school, both Principals and the Deputy Principals negated the statement and said bursary subsidies were not adequate to guarantee retention of students in the school.

On whether bursaries reduced dropout rates in their schools, majority of Principals represented by 27.8% agreed and 66.6% strongly agreed concurring with majority of Deputy Principals' views in the same table represented by 33.6% agreed and 61.1% strongly agreed that bursaries reduced dropout rates in their schools.

The results also revealed that majority of Principals represented by 11.1% agreed and 88.9% strongly agreed in Table 4.8 that bursaries have increased completion rates of students in schools. This concurs with Deputy Principals' views as represented by 11.1% agreed and 88.9 % strongly agreed in Table 4.8 that bursaries have increased completion rates of students in their schools.

The results shown in Table 4.9 indicate that majority of the Principals and Deputy Principals represented by 94.4% and 88.9% strongly claimed that bursary funding to

students was very influential in determining students' participation rates in education in Makueni County. With this concurrence of evidence, it can therefore be concluded that bursary funds influence students' participation rates in in public secondary schools in Makueni County.

Data from interview schedule confirmed that bursary funding to students was very influential in determining students' participation rates in that it increased participation rates of students in school in terms of access, retention and completion rates. On the same note interview schedules revealed that education subsidies in terms of bursaries largely increased students' participation in education. With this concurrence of evidence, it can therefore be concluded that bursary funding influence students' participation in education.

Inferential statistics results in Table 4.21 indicate that there was positive but moderate (R= .679). Additionally, t test results revealed that there was statistical relationship ($0.015<0.05$) between bursary awards and students 'participation in education. Based on the results, there was sufficient evidence to reject the null hypothesis and accept the alternative hypothesis. It was therefore concluded that there was positive but moderate relationship between bursary awards and students' participation rates in education in Makueni County Kenya.

The findings mirror those in Thailand on the Equitable Education Fund which was established in 2016 as a fiscal policy targeting poor students with a view to improving their education outcomes (UNESCO, 2024). The objective of the EEF according to Bastagli,Jessica and Harman (2016) was to ensure equity and efficiency in attaining inclusive education that is specifically serving the most disadvantaged quantile of households. In the case of the current study, the differentiated bursary scheme aims at alleviating the financial burden of poor households. To show commitment in ensuring equitable financing of education, in 2020 the EEF budget stood at THB 83 billion, which was 16.8% of the public education budget. This allocation according to UNESCO (2024) is significant. A key salient feature of EEF is the conditional cash transfer programme which distributes cash to poor households so as to increase their school attendance which

boosts their participation rates in education. According to the UNESCO report, households that satisfy the eligibility criteria to the program are required to ensure that their children attend atleast 85% of school days per year. The findings of the current study show that bursary allocation boost school attendance and hence participation rates of students from disadvantaged backgrounds and that students from poor households are retained in the education system without disruptions.

The study revelations are a reflection of those of a study in the Kingdom of Lesotho by Mat'ela (2023) that sought to establish the effectiveness of the OVC bursary scheme in enhancing orphans and vulnerable children's access to secondary schools in Lesotho. The reviewed study established that so as to provide quality education for all, in 2000, the Government of Lesotho established the OVC Bursary Scheme Policy 2000 for secondary school to enhance access and retention, and ultimately reduce dropouts thus enhancing education participation in secondary schools. The study findings concluded that, despite government efforts to enhance the retention of OVC and reduce school dropouts through the secondary education bursary scheme fund, there are still OVC dropouts in secondary schools which signifies the unfulfilled objective of the bursary policy. This concurs with the current study that established that, the bursaries awarded to students are not adequate to see them through secondary education cycle.

The findings of this study reflect a study done by Majgaard, Kirsten and Mingat (2012), in Malawi on the impact of Conditional Cash Transfer pilot program on girls' secondary school attendance that targeted girls who were out of school (baseline dropouts) and those who were in school (baseline schoolgirls). The programme under review consisted of direct cash transfers (Bursaries) to each affected girl and indirect monthly cash transfer to the parent of each girl. The current study is different in that the subsidies are send to the schools where the targeted students are attending. The study established that, the transfer programme had a significant positive impact in school attendance and the rate of re-enrollment of girls who had dropped out of secondary school rose. At the same time, the drop-out rate due to occasional absenteeism among those in school fell. The findings of the current study indicate that bursary awards being part of education subsidy increases and

improves access to education of students while at the same time reducing drop-out rates and boosting completion rates of students in schooling.

The current study also noted that Kenya operates National Government-Constituencies Development Fund (NG-CDF) which allocates bursaries to students in educational institutions thus improving participation rates of students in schools. The findings of this study concur with studies done by Oyoo, Achieng and Asena (2020) on the influence of National Government Constituency Development Fund (NG-CDF) support on students' enrollment in Muhoroni constituency in Kisumu County, Kenya. The study concluded that there was a strong positive correlation between NG-CDF bursary and participation rates of students in schools.

5.4 Influence of education financing by non-state agencies on students' participation rates

The third objective of the study was to establish the influence of education financing by non- state agencies on students' participation rates in public secondary schools in Makueni County. From Table 4.10, 50 % of the Principals strongly agreed and 40% agreed that financing of education by non-state agencies has improved the frequency of students school attendance. This was in concurred with majority of Deputy Principals Table 4.11 represented by 54% who strongly agreed and 26 % who agreed that financing of education by non-state agencies has improved the frequency of students' school attendance. Similarly, the mean (4.07) of the Principals reported in Table 4.10 and that of Deputy Principals (4.16) reported in Table 4.11 summarize the findings in percentages and confirm that indeed majority of the Principals and Deputy Principals agreed to the statement. The standard deviation of Principals reported in Table 4.10 of 0.977 and that of Deputy Principals (0.996) confirm that both were converging in their views in regard to this statement.

The statement on whether financing of education by non-state agencies is adequate to guarantee full participation of needy students in their schools, both Principals and their deputies responded overwhelmingly that financing of education by non-state agencies was

inadequate to guarantee full participation of needy students in their schools. The means of their responses for Principals (3.07) reported in Table 4.10 and that of Deputy Principals (4.04) reported in Table 4.11 summarize the findings in percentages and confirm that indeed majority of the Principals and Deputy Principals agreed to the statement. The standard deviation of Principals reported in Table 4.10 of 0.977 and that of deputy Principals (0.948) confirm that both were converging in their views with regard to this statement.

On whether completion rates have improved due to financing education by non-state agencies majority of Principals in represented by 46.8% agreed and 50.2% strongly agreed concurring with majority of deputies' views in Table 4.11 represented by 31% agreed and 59% strongly agreed that completion rates have improved due to financing education by non-state agencies reduced dropout rates in their schools. The means of their responses for principals (5.19) reported in Table 4.10 and that of deputies (4.89) reported in Table 4.11 summarize the findings in percentages and confirm that indeed majority of the principals and deputies agreed to the statement. The standard deviation of Principals reported in Table 4.10 of 0.997 and that of Deputy Principals in Table 4.11 of 0.996 confirm that both were converging in their views with regard to this statement.

The results also revealed that majority of Principals represented by 80% strongly agreed in Table 4.10 there is a strong link between financing education by non-state agencies and participation rates of students in their schools. On their view, the Deputy Principals as represented by 38% agreed and 60% strongly agreed in Table 4.11 that there is a strong link between financing education by non-state agencies and participation rates of students in their schools. The mean of Principals of 4.96 reported in Table 4.10 and that of the Deputy Principals reported in Table 4.1 of 3.87 indicate that the respondents were agreeing to the statement.

Figure 4.2 indicate that 80% and 98% of both Principals and Deputy Principals were of the view that financing of education by non-state agencies was very influential in determining participation rates of students in schools. With this concurrence of evidence, it can

therefore be concluded that financing of education by non-state agencies influences students' participation rates in public secondary schools in Makueni County.

Data from interview schedule confirmed that there is linkage between financing of education and students' participation rates in education. On the same note interview schedules revealed that Education subsidies in terms of non-state agencies like non-governmental organizations, Faith based organizations and other international funding agencies largely increased students' participation in education. With this concurrence of evidence, it can therefore be concluded that Non state financing increased and improved students' participation rates in education influence students' participation in education.

Inferential statistics results in Table 4.23 indicate that there was positive but moderate (R= .630). Additionally, t test results revealed that there was statistical relationship ($0.019<0.05$) between financing education by non-state agencies and participation rates of students in their schools. From these results, there was concrete evidence to reject the null hypothesis and accept the alternative hypothesis. It was therefore concluded that there was positive but moderate relationship between financing education by non-state agencies and participation in education in Makueni County Kenya.

The findings brought forward by this study concur with studies done in Ghana by Duflo, Dupas and Kremer (2017), which note that non state actors like Rotary Foundation award secondary school scholarships to students who could not enroll in school due to lack of funds and who were at risk of dropping out and had started showing to poor participation due to lack of funds. From the study, students who received the scholarships pay for the cost of school materials, transport and feeding as it covered full tuition and fees for day students. The impact of the scholarship is that, beneficiaries likely to complete secondary school and their learning improved. This shows that financing from non-state actors goes along way in improving learners' participation in education.

In concurring with the findings of the current study, a global education monitoring report summary by UNESCO (2022) noted that, non-state actors help fulfil the citizens' right to

education by filling genuine gaps in provision for education for disadvantaged groups often neglected by public systems. Non-state actors come in to help households cover education costs through scholarships paid for by companies, foundations, NGOs and philanthropists, as well as by providing student loans or income-share agreements. Both the reviewed study and the current study agree that, non state actors play a significant role in the provision of equal opportunities in education by bostering participation rates in education. However, their funding is not adequate to guarantee full participation of the poor and vulnerable.

A study by Business & Human Rights Resource Centre (2018) also concur with the findings of this study by revealing that the corporate sector in Kenyan companies especially those supporting secondary education like Wings to Fly scholarship by equity group offers secondary school scholarships to academically-gifted children from needy backgrounds to assist them finance their education .Other Non-state actors like Co-operative Bank offer scholarships to many students. These initiatives enhance participation rates in education for the beneficiaries.

5.5 Influence of provision of teaching and learning resources on students' participation rates

The fourth objective of the study was to determine the influence of provision of teaching and learning resources on students' participation rates in public secondary schools in Makueni County. From Table 4.12 40 % of the principals strongly agreed and 36% agreed that provision of teaching and learning resources by the government has increased students' participation rates in schools . This was in concurrence with majority of deputy principals in the same Table 4.13 represented by 50% who strongly agreed and 30 % who agreed that provision of teaching and learning resources by the government increased students participation rates in their schools. Similarly, the mean (4.15) of the Principals reported in Table 4.12 and that of deputies (4.10) reported in Table 4.13 summarize the findings in percentages and confirm that indeed majority of the principals and deputies agreed to the statement. The standard deviation of principals reported in Table 4.12 of 0.992 and that of teachers (0.882) confirm that both were converging in their views as regard to this statement.

The statement on whether provision of teaching and learning resources by non-state agencies increased participation of needy students in their schools, both principals and their deputies responded overwhelmingly disagreed with the statement with 68.1% of principals and 63.1% of the deputies concurring with that view. The means of their responses for principals (3.98) reported in Table 4.12 and that of deputies (3.95) reported in Table 4.13 summarize the findings in percentages and confirm that indeed majority of the principals and deputies disagreed to the statement. The standard deviation of principals reported in Table 4.12 of 0.844 and that of teachers (0.842) confirm that both were converging in their views as regard to this statement.

On whether teaching and learning resources provided are adequate to all students in the schools majority of principals in represented by 88% disagreed concurring with majority of deputies' views in Table 4.13 represented by 90% who disagreed that teaching and learning materials are adequate to all students in the schools. The means of their responses for principals (4.87) reported in Table 4.12 and that of deputies (4.86) reported in Table 4.13 summarize the findings in percentages and confirm that indeed majority of the principals and deputies disagreed to the statement. The standard deviation of principals reported in Table 4.12 of 0.990 and that of teachers (0.899) confirm that both were converging in their views as regard to this statement.

The results also revealed that majority of Principals represented by 60% strongly agreed in Table 4.12 there is a strong link between provision of teaching and learning resources and participation rates of students in their schools. On their deputies' views as represented by 70% strongly agreed in Table 4.12 that there is a strong link between provision of teaching and learning resources and participation rates of students in their schools. The mean of principals of 4.72 reported in Table 4.12 and that of the deputy principals reported in Table 4.13 of 4.72 indicate that the respondents were agreeing to the statement.

Table 4.14 indicate that 90% and 93.3% of both principals and deputy principals were of the view that provision of teaching and learning resources was very influential in determining participation rates of students in schools. With this concurrence of evidence,

it can therefore be concluded that provision of teaching and learning resources influences students' participation rates in public secondary schools in Makueni County.

Data from interview schedule confirmed that there is linkage between provision of teaching and learning resources and participation rates of students in their school. On the same note interview schedules revealed that Education subsidies in terms of provision of teaching and learning resources largely increased students' participation in education. With this concurrence of evidence, it can therefore be concluded that provision of teaching and learning resources and participation rates of students in their schools in public secondary schools in Makueni County.

Inferential statistics results in Table 4.25 indicate that there was positive but moderate (R= .590). Additionally, t test results in Table 4.26 revealed that there was statistical relationship ($0.022<0.05$) between provision of teaching and learning resources and participation rates of students in their schools. From these results, there was concrete evidence to reject the null hypothesis and accept the alternative hypothesis. It was therefore concluded that there was positive but moderate relationship between provision of teaching and learning resources and participation in education in Makueni County Kenya.

Findings put forward by this study agree with research study conducted by Rawat, Gopang and Hamid (2012), to examine the impact of free textbooks distribution on retention rate of learners in secondary schools of Taluka Gambat District Khairpur Sindh Pakistan. The study notes that, free textbooks distribution helped increase retention rate, decrease dropouts, raise enrollment, improve daily attendance, increase passing rate of learners and enhanced the quality of education. By and large from the findings of the study, it is evident that provision of teaching and learning resources increases learners' participation rates in education.

The current study findings also mirror those in Venezuela by UNICEF (2023) in conjunction with the government plans to reach a total of 1.2 million children who are out of school by use of educational supplies as a way of subsidizing education. Through the

initiative, learners are provided with back-to-school kits to keep them learning despite the hard socio-economic conditions. Each back-to-school kit contains a school bag holding essential learning supplies including a notebook, pencils and supplementary readers. These kits are distributed to students across the republic. UNICEF also provides teaching and learning materials, to schools as a way of further supporting students and teachers (UNICEF,2023). These programmes according to UNICEF help to boost participation in education for students who would have otherwise dropped out of school due to their strained socio-economic backgrounds that make households unable to cater for education supplies needed by these learners in school. In concurrence with the reviewed study, the current study established strong correlation between provision of teaching and learning materials and participation rates in education in public secondary schools in Makueni county.

There is convergence between the current research findings and a study conducted in the Sub Saharan Africa region by Hassan,Groot and Volante (2022) that sought to establish the relationship between education subsidies inform of teaching and learning materials and learning outcomes. The reviewed study slightly differs from the current study in that it set out to establish the relationship between provision of subsidies inform of teaching and learning materials and learning outcomes. However, both studies are in agreement that, subsidy interventions involving pedagogical materials such as textbooks, workbooks and exercise books were primarily associated with positive effects on student learning in the form of increased test scores which increased students' love for school and for that reason regular school attendance which is a vital measure of participation in education.

Reviewed studies in Rwanda according to Arora and Singh (2017) noted that, inorder to improve overall student academic performance the government embarked on equipping schools with sufficient number of teaching and learning materials. Studies have demonstrated that when schools have enough teaching and learning materials, students learn with high motivation, resulting in the optimum student participation in education (Ilomo & Mlavi, 2016). This is in harmony with the findings of the current study. According to a study conducted by Berthilde and Manizabayo (2021) on the relationship

between the availability of teaching materials and students' academic performance established that, inadequate teaching and learning materials leads to lack of motivation and can result to irregular school attendance. Further the study posits that, schools where students perform well are those that allocate enough money in the well-being of students by providing sufficient teaching and leaarning resources. This assertion is a reflection of the findings of the current study.

Empirical evidence put forward by Ouma (2017) on the influence of school-based factors on internal efficiency in mixed public secondary schools in Nyatike sub county, Kenya confirms that teaching and learning resources affect retention and performance of students in secondary schools which may subsequently contribute to dropout of students. The convergence between Oumas (2017) study and the evidenced brought forward by the current study is that teaching and learning resources affect student retention and performance in schools. Evidently teaching and learning resources influence learners' participation rates as confirmed by the current study.

Evidence from this study confirm that Education subsidies have seen reduction of school dropout rate increased retention and enhanced completion rates. Education subsidies ensure students do not repeat classes due to lack of fees. Education subsidies ensure that students are kept in school and no student miss exams and classes due to lack of fees payment which has influenced completion rates. This assertion is in tandem with the evidence put forth by this study. These assertions mirror UNESCO (2015) paper *Education For All 2000-2015: Achievements and Challenges: Education for All Global Monitorin* which assert that that financing education is a primary enhancer of participation rates of students in schooling.

CHAPTER SIX

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

This chapter presents the study's conclusions, recommendations and suggestions for further research.

6.1.1 Influence of Free Day Secondary Education (FDSE) capitation grants on students' participation rates

The first objective of the study was to establish the influence of Free Day Secondary Education (FDSE) capitation grants on students' participation rates in public secondary schools in Makueni County, Kenya. The study findings established that the relationship between funding education through FSDE capitation grants was positive but moderate. The study also established that financing education through FSDE capitation grants was influential in determining students' participation rates in education in public secondary schools in Makueni County Kenya. Further, the study results provided evidence to reject the null hypothesis. Based on the findings, the study concludes that Free Day Secondary Education (FDSE) capitation grants influence students' participation rates in public secondary schools in Makueni county Kenya.

6.1.2 Influence of Bursary Awards on students' participation rates.

The second objective of the study was to determine the influence of bursary awards on students' participation rates in public secondary schools in Makueni County, Kenya. The study findings established that the relationship between funding education through Bursary awards was positive but moderate. The study also established that financing education through bursary awards on students' participation rates was influential in determining students' participation rates in education in public secondary schools in Makueni County Kenya. Further, the study results provided sufficient evidence to reject the null hypothesis. Based on the findings, the study concludes that financing education through bursary awards influence students' participation rates in public secondary schools in Makueni county Kenya.

6.1.3 The Influence of financing education through non-state actors on students' participation rates

The third objective of the study was to determine the influence of financing education through non-state actors on students' participation rates in public secondary schools in Makueni County, Kenya. The study findings established that the relationship between funding education through financing education by non-state actors on students' participation rates was positive but moderate. The study also established that financing education through non-state actors on students' participation rates was influential in determining students' participation rates in education in public secondary schools in Makueni County Kenya. Further, the study results provided sufficient evidence to reject the null hypothesis. Based on the findings, the study concludes that financing education through non-state actors influence students' participation rates in public secondary schools in Makueni County, Kenya.

6.1.4 The influence of provision of teaching and learning resources on students' participation rates

The fourth objective of the study was to determine the influence of provision of teaching and learning resources on students' participation rates in Makueni County, Kenya. The study findings established that the relationship between provision of teaching and learning resources and participation rates was positive but moderate. The study also established that provision of teaching and learning resources was influential in determining students' participation rates in education in public secondary schools in Makueni County Kenya. Further, the study results provided concrete evidence to reject the null hypothesis. Based on the findings, the study concludes that provision of teaching and learning resources influence students' participation rates in public secondary schools in Makueni county Kenya.

6.1.5 The influence of educational subsidies on students' participation rates.

The general objective of the study was to determine the influence of educational subsidies on students' participation rates in Makueni county, Kenya. The study findings established that the relationship between provision of educational subsidies and participation rates was

positive but moderate. The study also established that provision of educational subsidies was influential in determining students' participation rates in education in public secondary schools in Makueni County Kenya. Further, the study concludes that provision of educational subsidies influences students' participation rates in public secondary schools in Makueni county Kenya.

6.2 Recommendations

The study made the following recommendations in line with the research objectives.

On influence of Free Day Secondary Education (FDSE) capitation grants on students' participation rates.

i. The government should continue and also increase FDSE capitation grants so as to increase participation rates of students in education.
ii. Besides the uniform capitation grants, the government through the ministry of education should consider a targeted funding to that aims at alleviating the financial burden borne by poor households even after they receive the grants.

On objective two; influence of bursary awards on students' participation rates, the study recommends as follows;

i. The government should continue and also increase bursary awards to students as a way of bolstering participation rates of students in secondary school education.
ii. The Ministry of Education should provide and solicit for scholarships from development partners to ensure smooth participation of learners in education, especially those from poor backgrounds.
iii. School Boards of Management should come up with institutional bursary schemes that target vulnerable students and those at the risk of dropping out of school due to financial constraints. These schemes may be funded through profits from income generating activities, charity walks or from other sources as the BOMs may deem viable.
iv. Since bursary awards have the most significant influence on participation rates due to their targeted approach, the government should align its funding of secondary

education with a targeted model. This will improve participation rates in education greately.

On objective three; on Influence of financing education through non-state actors on students' participation rates the study recommends as follows;

i. The government should partner with non-state agencies like NGOs FBO and international agencies to continue financing education in schools.
ii. Non state actors should continue their actions of benevolence in augmenting state financing of education.
iii. Schools should ensure prudent utilization of available resources so as to attract more non state actors supporting needy students.

On objective four; on the Influence of provision of teaching and learning resources on students' participation rates, the study recommends that;

i. The government should continue providing teaching and learning resources to learners that are sufficient enough to maintain students in schools. This will relieve the parent who will be able to pay other costs to keep students in school.

On the general objective; on the influence of educational subsidies on participation rates, the study recommends that;

i. The government should continue providing and diversifying educational subsidies. This will guarantee students' participation till completion of secondary school education.
ii. At the institutional level, schools should come up with income generating activities whose profits can be used to offer financial safety nets as bursaries to bright and deserving students.
iii. In view of the inadequate subsidies, schools should utilize the available resources in the most cost effective way possible so as to avoid wastage or any unnecessary expenditure.

6.3 Recommendation for further research

This study was conducted in public schools in Makueni County. Therefore, it is suggested that further studies should be done focusing on other counties in Kenya. This will help to compare the results from schools in different parts of the country and establish if the findings are specific to Makueni County or mirror other parts of country.

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APPENDICES

Appendix i: Principals' Questionnaire

This questionnaire seeks to collect general information on the **Educational Subsidies and Participation Rates in Public Secondary Schools in Makueni County, Kenya.** The information you give will be used for this study only. You are not required to indicate your name and that of your school in this questionnaire. This anonymity is meant to guarantee confidentiality. Kindly give your opinion in the spaces provided and tick (√) in the appropriate bracket where provided.

Section A: General Information

1. Please indicate your gender Male ( ) Female ( )
2. Please indicate your age bracket 25-34 years ( ) 35- 44 years ( ) 45-54 years ( ) over 55 years ( )
3. What is your highest academic and professional qualifications? Diploma ( ) Bachelors Degree( )Master's Degree ( ) PhD Holder ( ) Any other (specify) _____
4. What is your teaching experience? 10-15 years ( ) 16-20 years ( )
   Above 20 years ( )
5. How long have you served as principal in your current station? Less than 5 years ( ) 5-10 years ( ) 11-20 years ( ) over 20 years ( )

Section B: Influence of FDSE on Participation Rates

6. The following statements relate to the relationship between FDSE capitation grants and participation rates in public secondary schools. On a scale of 1-4 please indicate the extent to which you agree that FDSE capitation influences participation rates in your school.

SA Strongly agree **A** Agree **D** Disagree **SD** Strongly disagree

	SA	A	D	SD
FDSE capitation increases students' students' participation in education in your school				
Government subsidies are adequate to guarantee retention of students in school				
FDSE capitation increases students' completion rates in your school				
FDSE capitation reduces students' dropout rates in your school				
There is a significant relationship between FDSE capitation and students' participation rates in your school				

7. In your own opinion how influential is FSDE in increasing students' participation rates in education?

   Very influential ( ) Influential ( ) Less influential ( ) Not influential ( )

Section C: Influence of Bursary Funds on Participation Rates in Education

1. The following statement relate to the relationship between bursary funds and participation rates in education. On a scale of 1-4 kindly indicate the extent to which you agree that bursary funds influence participation rates in education.

SA Strongly agree **A** Agree **D** Disagree **SD** Strongly disagree

Statement	**SA**	**A**	**D**	**SD**
Bursary awards increase participation rates of students in education				
Bursaries are adequate to guarantee full participation in education.				
Bursaries have reduced drop out rates in your school				
Bursaries have increased completion rates of students in your school.				
There is no relationship between bursaries and participation rates in education.				

Section D: Influence of Financing by Non-State Actors on Participation Rates in Education

1. The following information relate to the influence of financing by non-state actors on students' school participation in education in your school.On a scale of 1-4 Kindly indicate the extent to which you agree that financing education by Non-State actors influences students' participation rates.

   SA Strongly agree **A** Agree **D** Disagree **SD** Strongly disagree

Statement	**SA**	**A**	**D**	**SD**
Financing by non-state agencies has improved the frequency of students' school attendance				
Financing by non-state agencies is adequate to guarantee full participation of needy students in your school				
Completion rates have improved due to financing education by non-state agencies.				
There is no significant relationship between financing education by non-state agencies and participation rates of students in your school				

Section E: Influence of Provision of Teaching and Learning Materials on Participation Rates in Education

1. The following information relate to the influence of provision of teaching and learning materials on participation rates in education. On a scale of 1-4 kindly indicate the extent to which you agree that provision of teaching and learning materials on participation rates in education

SA Strongly agree **A** Agree **D** Disagree **SD** Strongly disagree

Statement	**SA**	**A**	**D**	**SD**
The teaching and learning resources provided are adequate to all students in your				
There is no significant relationship between provision of teaching and learning materials and students' participation rates in education				

Section F: Information on Dependent variables (Participation rates)

1.Access to Education

The following statements relate to information on Access to Education in public secondary schools. On a scale of 1-4 please indicate the extent to which you agree that education subsidies influence students access to education in your school.

SA Strongly agree **A** Agree **D** Disagree **SD** Strongly disagree

Statement	**SA**	**A**	**D**	**SD**
Education subsidies encourage students' access to secondary education				
Subsidies have generally improved students access to public education				

2. Students' retention to Education

The following statements relate to information on Access to Education in public secondary schools. On a scale of 1-4 please indicate the extent to which you agree that education subsidies influence students retention to education in your school.

SA Strongly agree **A** Agree **D** Disagree **SD** Strongly disagree

Statement	**SA**	**A**	**D**	**SD**
Education subsidies have seen reduction of dropping out school.				
Subsidies have generally improved students access to public education				

4. Students' completion rates Education

The following statements relate to information on Access to Education in public secondary schools. On a scale of 1-4 please indicate the extent to which you agree that education subsidies influence students completion to education in your school.

SA Strongly agree **A** Agree **D** Disagree **SD** Strongly disagree

Statement	**SA**	**A**	**D**	**SD**
Education subsidies have sustained students in school upto completion				
Dropout has reduced due to education subsidies which has enhanced completion rates				

Appendix ii: Deputy Principals' Questionnaire

This questionnaire seeks to collect general information on the **Educational Subsidies and Participation Rates in Public Secondary Schools in Makueni County, Kenya.** The information you give will be used for this study only. You are not required to indicate your name and that of your school in this questionnaire. This anonymity is meant to guarantee confidentiality. Kindly give your opinion in the spaces provided and tick (√) in the appropriate bracket where provided.

Section A: General Information

1. Please indicate your gender Male ( ) Female ( )
2. Please indicate your age bracket 25-34 years ( ) 35- 44 years ( ) 45-54 years ( )
   over 55 years ( )
3. What is your highest academic and professional qualifications? Diploma ( ) Bachelors Degree( )Master's Degree ( ) PhD Holder ( ) Any other (specify) _____
4. What is your teaching experience? 10-15 years ( ) 16-20 years ( ) Above 20 years ( )
5. How long have you served as a Deputy principal in your current station? Less than 5 years ( ) 5-10 years ( ) 11-20 years ( ) over 20 years ( )

Section B: Influence of FDSE on Participation Rates

6. The following statements relate to the relationship between FDSE capitation grants and participation rates in public secondary schools. On a scale of 1-4 please indicate the extent to which you agree that FDSE capitation influences participation rates in your school.

SA Strongly agree **A** Agree **D** Disagree **SD** Strongly disagree

Statement	**SA**	**A**	**D**	**SD**
FDSE capitation increases students' students' participation in education in your school				
Government subsidies are adequate to guarantee retention of students in school				
FDSE capitation increases students' completion rates in your school				
FDSE capitation reduces students' dropout rates in your school				
There is a significant relationship between FDSE capitation and students' participation rates in your school				

Section C: Influence of Bursary Funds on Participation Rates in Education

7.The following statement relate to the relationship between bursary funds and participation rates in education. On a scale of 1-4 kindly indicate the extent to which you agree that bursary funds influence participation rates in education.

SA Strongly agree **A** Agree **D** Disagree **SD** Strongly disagree

Statement	**SA**	**A**	**D**	**SD**
Bursary awards increase participation rates of students in education				
Bursaries are adequate to guarantee full participation in education.				
Bursaries have reduced drop out rates in your school				
Bursaries have increased completion rates of students in your school.				
There is no relationship between bursaries and participation rates in education.				

Section D: Influence of Financing by Non-State Actors on Participation Rates in Education

8.The following information relate to the influence of financing by Non-State actors on students' school participation in education in your school.

12.On a scale of 1-4 Kindly indicate the extent to which you agree that financing education by Non-State actors influences students' participation rates.

SA Strongly agree **A** Agree **D** Disagree **SD** Strongly disagree

Statement	**SA**	**A**	**D**	**SD**
Financing by non-state agencies has improved the frequency of students' school attendance				
Financing by non-state agencies is adequate to guarantee full participation of needy students in your school				
Completion rates have improved due to financing education by non-state agencies.				
There is no significant relationship between financing education by non-state agencies and participation rates of students in your school				

Section E: Influence of Provision of Teaching and Learning Materials on Participation Rates in Education

13The following information relate to the influence of provision of teaching and learning materials on participation rates in education. On a scale of 1-4 kindly indicate the extent to which you agree that provision of teaching and learning materials on participation rates in education

SA Strongly agree **A** Agree **D** Disagree **SD** Strongly disagree

Statement	**SA**	**A**	**D**	**SD**
Provision of teaching and learning resources by the government has increased participation rates education by students in your school.				
Provision of teaching and learning resources by non-state agencies has increased participation rates education by students in your school.				
The teaching and learning resources provided are adequate to all students in your				
There is no significant relationship between provision of teaching and learning materials and students' participation rates in education				

Appendix iii : Interview Schedule for the Sub-county Directors of Education

1. In what ways does the government support educational funding for secondary schools in the sub-County?
2. What are some of the stake holders who participate in financing education for students in secondary schools within the sub-county?
3. In what ways does this financing improve access to education of the students in the sub-county?
4. In what ways does this financing improve retention of students to in education of the students in the sub-county?
5. In what ways does this financing improve completion to education of the students in the sub-county?

Appendix iv: Data Collection Letter from Board of Post Graduate Studies

SOUTH EASTERN KENYA UNIVERSITY
OFFICE OF THE DIRECTOR
BOARD OF POST GRADUATE STUDIES

P.O. BOX 170-90200
KITUI, KENYA
Email: info@seku.ac.ke

TEL: 020-4213859 (KITUI)
Email: directorbps@seku.ac.ke

Our Ref: E70/WTE/30021/2013

DATE: 9th August, 2023

Musyimi Mumina Charles
Email: Muminacharles@yahoo.com
Tel No.: 0717515458

Dear Mr. Musyimi,

RE: PERMISSION TO PROCEED FOR DATA COLLECTION

This is to acknowledge receipt of your Doctor of Philosophy in Educational Administration Proposal document entitled: *"Educational Subsidies and Students' Participation Rates in Education in Public Secondary Schools in Makueni County, Kenya".*

Following a successful presentation of your Ph.D. Proposal, the School of Education Board of Examination in conjunction with the Directorate, Board of Postgraduate Studies (BPS) have approved that you proceed to research data collection in accordance with your approved proposal.

During the research work, you will be supervised by Dr. Redempta Kiilu, Dr. Gideon Kasivu and Dr. Joseph Nzomoi. You should ensure that you liase with the supervisors at all times. In addition, you are required to fill in a Progress Report *(SEKU/ARSA/BPS/F-02)* & (SEKU/ ARSA/BPS/F-14) which can be downloaded from the University Website.

The Board of Postgraduate Studies wishes you well and successful research data collection, analysis and thesis writing.

Prof. Elliud Muli
Director, Board of Postgraduate Studies

Copy to: Deputy Vice Chancellor, Academic, Research and Innovation (Note on File)
Dean, School of Education
Chairman, Department of Educational Administration & Planning
Dr. Redempta Kiilu
Dr. Gideon Kasivu
Dr. Joseph Nzomoi

Appendix v : Data Collection Letter from Ministry of Interior and National Administration Makueni

OFFICE OF THE PRESIDENT
MINISTRY OF INTERIOR AND NATIONAL ADMINISTRATION

Telegram:
Telephone:
Fax:
Email: ***makuenicc@yahoo.com***

COUNTY COMMISSIONER
MAKUENI COUNTY
P.O. Box 1-90300
MAKUENI

Ref: MKN/CC/ADM.6/1 VOL.V/156

15th March, 2024

Mr. Charles Mumina
SOUTH EASTERN KENYA UNIVERSITY

RE: RESEARCH AUTHORIZATION

Reference is made to Director General National Commission for Science, Technology and Innovation letter **Ref. NACOSTI/P/24/33751** dated **12th March, 2024** on the above underlined subject matter.

You are hereby authorized to undertake research on the topic, "***Education Subsidies and Students Participation Rates in Education in Public Secondary Schools in Makueni County***" for the period ending **12th March, 2025.**

By a copy of this letter the Deputy County Commissioners are requested to give you the necessary assistance.

15 MAR 2024

B. M. MWANGI
FOR: COUNTY COMMISSIONER
MAKUENI

Cc:
County Director of Education
MAKUENI COUNTY

All Deputy County Commissioners
MAKUENI COUNTY

Appendix vi : Data Collection Letter from State Department for Basic Education

REPUBLIC OF KENYA

MINISTRY OF EDUCATION
STATE DEPARTMENT FOR BASIC EDUCATION

Telephone: .....
Fax: .....
Email:cdemakueni@gmail.com
When replying please quote
Ref No. MKN/C/ED/5/33/VOL.II/196

County Director of Education Office
P.O. BOX 41 - 90300
MAKUENI

15th March, 2024

Mr. Charles Mumina
SOUTH EASTERN KENYA UNIVERSITY

RE: RESEARCH AUTHORIZATION

This office is in receipt of a letter from the Director General, National Commission for Science, Technology and Innovation (NACOSTI) authorizing you to carry out research on **" Education Subsidies and Students Participation Rates in Education in public Secondary Schools in Makueni County",** for the period ending **12th March, 2025.**

Following this authorization, you are allowed to proceed with your research as requested.

COUNTY DIRECTOR OF EDUCATION
DATE: 15/3/2024
P.O. BOX 41-90300
MAKUENI
MAKUENI COUNTY - MOEST

Richard M. Mulonzya
For County Director of Education
MAKUENI

CC:
Director General/ CEO, NACOSTI

Appendix vii : NACOSTI Letter

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **424846**

Date of Issue: **12/March/2024**

RESEARCH LICENSE

This is to Certify that Mr.. charles Mumina Musyimi of South Eastern Kenya University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Makueni on the topic: Educational Subsidies and Students Participation Rates in Education in Public Secondary Schools in Makueni County, Kenya for the period ending : 12/March/2025.

License No: **NACOSTI/P/24/33751**

424846

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions