FAMILY-BASED DETERMINANTS INFLUENCING STUDENTS' ACADEMIC PARTICIPATION IN PUBLIC DAY SECONDARY SCHOOLS IN MAKUENI COUNTY, KENYA

JACINTA WAYUA NZINA

A Research Thesis Submitted in Partial Fulfillment of the Requirement for the Degree of Doctor of Philosophy in Economics of Education and Planning of South Eastern Kenya University

2024

DECLARATION

I understand that plagiarism is a crime and I affirm therefore that this thesis is my original work and has not been submitted for any award in any other institution.

Signature _____ Date _____

Jacinta Wayua Nzina

E504/MAI/30003/2020

This thesis has been submitted for examination with our approval as university supervisors.

Dr. Redempta Kiilu

Lecturer, Department of Educational Administration and Planning

School of Education, Humanities and Social Sciences

South Eastern Kenya University

Signature _____ Date _____

Dr. Francis Muya

Lecturer, Department of educational Administration and Planning

School of Education, Humanities and Social Sciences

South Eastern Kenya University

ACKNOWLEDGEMENT

The success of this thesis has been possible through the grace of God. I thank the Almighty God for the protection, provision and guidance to go through the course and come up with this thesis. I sincerely acknowledge my supervisors, Dr. Redempta Kiilu and Dr. Francis Muya of South Eastern Kenya University for their tireless guidance during my studies, proposal and thesis writing. I also acknowledge my other lecturers; Dr. Janet Mulwa, Dr. Selpher Cheloti, Dr. Gedion Kasivu and Dr. Rose Mwanza of South Eastern Kenya University who have been instrumental for the success of this thesis.

Special mention goes to the Kasikeu Boys High School Family, the staff and the students, for their continuous moral support and encouragement during my studies. I would like to acknowledge the County Director of Education, Makueni, the County Commissioner, Makueni, and NACOSTI for permitting me to carry out a study in Makueni County. I thank my spiritual parents, Rev. John Musyimi and Pastor Helen John for their continuous prayers and encouragement during the time of my studies.

Special thanks go to my husband, David and our children; Jane, Jonathan, James, Japheth and Joel for their continuous support, endurance and patience during my studies and research work. I spent most of my free time in books and internet doing research and I sincerely appreciate their understanding and encouragement.

DEDICATION

I would like to dedicate this work to; my beloved mother, Grace Paul, my dear husband, David M. Kimenye and our precious children; Jane, Jonathan, James, Japheth and Joel.

TABLE OF CONTENTS

CHAPTER ONE

CHAPTER TWO

CHAPTER THREE

CHAPTER FOUR

CHAPTER FIVE

CHAPTER SIX

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ABREVIATIONS AND ACRONYMS

APA	**:**	American Psychological Association
BOM	**:**	Board of Management
CATs	**:**	Continuous Assessment Tests
CDF	**:**	Constituency Development Funds
CEB	**:**	County Education Board
CEO	**:**	County Education Officer
CH	**:**	Area Chief
EFA	**:**	Education for All
FCUBE	**:**	Free Compulsory Universal Basic Education
FDSE	**:**	Free Day Secondary Education
FPE	**:**	Free Primary Education
GOK	**:**	Government of Kenya
HRD	**:**	Human Resource Development
IMF	**:**	International Monetary Fund
KNBS	**:**	Kenya National Bureau of Statistics
MDGS	**:**	Millennium Development Goals
MOE	**:**	Ministry of Education
NACOSTI	**:**	National Council of Science, Technology and innovation
NCE	**:**	Normal Curve Equivalent
OECD	**:**	Organization for Economic Cooperation and Development
PA	**:**	Parents Association
PTA	**:**	Parents and Teachers Association
ROK	**:**	Republic of Kenya
SAP	**:**	Structural Adjustment Programme
SDGs	**:**	Sustainable Development Goals
SPSS	**:**	Statistical Package for Social Sciences
UNESCO	**:**	United Nations Education, Scientific and Cultural Organizations
UNICEF	**:**	United Nations International Children's Emergency Fund
USAID	**:**	United States Agency for International Development

DEFINITIONS OF KEY TERMS

Family-based determinants:	Refers to the factors found in the family that either enhance or limit students' participation in public day secondary schools.
Home – school distance:	Refers to the maximum distance which students should travel to reach school.
Home environment:	Refers to the emotional warmth displayed by parents and relatives while interacting with their children, provision of stimulating and learning experiences in the home.
Influence:	Refers to the extent of the effect of family based-factors on students' participation in public secondary schools.
Parent:	Refers to an adult who is having significant input to a child's life.
Parental involvement in: students' learning activities	Refers to the act of taking active role by the parents in the education of their children.
Parental level of education:	Refers to the highest level of education attained by the parent.
Parents' ability to pay: user charges	Refers to the parents' financial power to cater for or pay the levies charged by schools in order for their children to stay in school.

Public day secondary school:	Day Secondary school supported by public funds. Teachers are employed by the Government and students are given sh. 22,244.00 /year.
Students' academic participation:	Means "taking part in" or "getting involved" in education by students in terms of enrolment, regular school attendance and completion of studies.
User charges:	Refers to the levies charged by schools such as lunch, remedial, uniform and development fees that parents or guardians should pay in order for their children to stay in school.

ABSTRACT

Over the years, the government of Kenya has implemented various programs and policies in a bid to enhance students' academic participation in secondary education across the nation. While several gains had been realized as a result of these initiatives in terms of access, retention and completion among secondary school students, in Makueni County, a considerable number of students were not able to participate fully in their studies as expected. Research had shown that enhanced students' academic participation in schools depended on the commitment of both the government and households/guardians. Hence, family-based determinants were likely to influence students' academic participation in public day secondary schools. The purpose of this study, therefore, was to establish the influence of family-based factors on students' academic participation in public day secondary schools in Makueni County, Kenya. This study particularly sought to determine the influence of parents' ability to pay user charges, parental involvement in students' learning activities, home-school distance, parental level of education and home environment on students' participation in public day secondary schools in Makueni County. This study was guided by the human capital theory. The study employed concurrent research design of mixed methods approach. The study targeted all the 250 public day secondary schools in Makueni County. The units of observation were 250 principals, 380 Form 4 class teachers, 250 PA chair persons and 108 area chiefs. The sampling techniques were stratification and random sampling. The sample size included 50 principals, 76 class teachers and 50 PA chairpersons from the 50 schools sampled and 21 chiefs, making a total of 197 research participants. Data was collected using questionnaires, interview schedules and document analyses. Quantitative data was analyzed using descriptive and inferential statistics using the Statistical Package for Social Sciences (SPSS) version 24 and presented using frequency tables and graphs while qualitative data was analyzed thematically and presented using narratives and appropriate verbatim quotes. Descriptive statistics used were mainly mean and standard deviation while inferential statistics used were both correlation and regression analyses. Pearson's correlation coefficients were used to determine the correlation between the independent and dependent variables. Bivariate regression analysis was used to show the individualized influence of each independent variable on the dependent variable while the joint influence for all the independent variables was demonstrated using multiple regression analysis. Bivariate regression estimates were used in hypothesis testing where inferences were made at the 0.05 level of significance. The study established that parents' ability to pay user charges, parental involvement in students' learning activities, parental level of education and home environment positively and significantly influenced students' academic participation in public day secondary schools in Makueni County. On the other hand, home-school distance had a negative significant influence on students' academic participation in these schools. Based on these findings, the formulated null hypotheses that family-based factors did not have a statistically significant influence on students' participation in public day secondary schools in Makueni County were rejected. Thus, the study concluded that parents' ability to pay user charges, parental involvement in students' learning activities, home-school distance, parental level of education and home environment were significant family-based determinants influencing students'

academic participation in public day secondary schools in Makueni County. One of the recommendations from this study was that government should increase the amount of FDSE allocations channeled to schools to cover user charges imposed, boost scholarships and bursary schemes and also implement feeding programmes for the day scholars. The study also called for construction of more public day secondary schools in strategic areas near communities, expansion of boarding facilities and increase sensitization campaigns on the importance of education targeting parents/guardians. The study also recommended that school administrators should organize more frequent academic clinics and PTA meetings, allow school fees to be paid in installments and in -kind where possible and also establish active guidance and counseling departments among other recommendations.

CHAPTER ONE

1.0 INTRODUCTION

This chapter covers background to the study, statement of the problem, objectives of the study, research hypotheses, significance of the study, limitations of the study, delimitations of the study, assumptions of the study and the organization of the study.

1.1 Background to the Study

Education plays a very vital part in the economic, social and political development of any nation. In all over the world, education is extremely regarded and recognized as a basic human right for every child (UNESCO, 2009). Therefore, despite the high cost of education many governments and families invest very much in all levels of education (Aturupane, 2017, Wati & Sahid, 2022). Education helps in creation of human capital that contributes much in national development through; increased production and eliminate poverty, diseases and ignorance (Naroş & Simionescu, 2019, Liu et al., 2021). Educational achievement has become economically more vital in productivity when compared to other factors of production such as land and capital (Goczek, Witkowska & Witkowski, 2021). Attainment of education provides skills that help in organization and transformation of other resources for better livelihood among people (Psacharopoulos & Patanos, 2018).

Education is a stand-alone goal (SDG 4) in the 2030 Agenda for Sustainable Development. The SDG 4 aims to ensure inclusive and equitable education and promotion of lifelong learning opportunities for all. The target 4.1 states that; by 2030 ensure that all girls and boys complete free, equitable and quality primary and secondary education without discrimination (Dost, 2020). It is against this background that most of the countries all over the world have tried to provide free education so that each and every child can participate regardless of individual socio-economic background (Zickafoose et al., 2024). In other words, governments are trying to make education accessible to those children from low socio-economic background by abolishing school fees (The 2030 Agenda for Sustainable Development).

Student academic participation is widely described as an action of taking an active part in education by students in terms of access, retention, performance and completion (Ntakirutimana, 2022). Student academic participation envelops a process of admitting or enrolling students in to school to undertake academic activities within a given period and this requires that students regularly attend school and successfully complete the period of instruction (Giro & Chui, 2023). Hence, in this study, students' academic participation was indicated by enrolment, attendance, physically being present in school and taking part in school activities and completion of studies. Dejaeghere and Arur (2020) noted that the ability of boys and girls to access, get retained and complete school is not only important for individual development but also for the future of the society at large.

Despite governments' efforts to invest heavily in education, students' academic participation in public secondary schools is still constrained in various regions across the globe. In the past two decades, the world made some progress to get children into secondary schools. According to United Nations International Children's Emergency Fund (UNICEF) (2021), out-of-school numbers fell by almost 40% from 99 million to 61 million for lower secondary school-aged children, and by 22% from 177 million to 137 million for upper secondary school-aged children. However, an overwhelming number of children were still out of school especially in lesser developed and economically poorer geographic regions (UNICEF, 2021).

The United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute of Statistics estimated that in 2019, one in three children in Sub-Saharan Africa were out of lower secondary, compared to one in 100 in Northern America (Smith, Voigt & Zhang, 2021). The Asia Pacific region sits in the middle of these extremes with about 10% and 30% of lower and upper school-aged children out of school respectively.

Drawing lessons from Mexico, Josephson, Francis and Jayara (2018) reported that despite expansion in access to secondary education and consequently, gross enrolment rates, low secondary completion rate presented a substantial challenge in Latin America and the Caribbean with nearly half of all students failing to complete the full cycle of

secondary school education. Habib and Mawa (2022) underlined that secondary education in Bangladesh suffered from persistent issues such as increased non completion, absenteeism, poor achievement, and dropout all of which were directly linked to a lack of student participation in the classroom. Focusing on Sub Sharan Africa, Akyeampong et al. (2018) noted that although participation in lower secondary had more than doubled, few completed and progressed to upper secondary. The authors argued that low entry and completion rates at this level suggested that much more was needed to make secondary schools more efficient and effective to improve access, completion and learning outcomes. Students who attend rural schools seem more likely to drop out compared to those attending urban schools.

Another report by UNICEF and African Union Commission (2021) revealed that in all regions of the African continent, a considerable proportion of young people (53 per cent on average) who were at the right age to attend upper secondary school were not enrolled in school while completion rates for lower and upper secondary education levels were 41% and 23% in 2019 respectively. With a particular focus on pastoralist communities in Tanzania, Makyara et al. (2019) reported that only 49.4% of those enrolled in form one were able to register for Certificate of Secondary Education Examination after four years indicating a lot of inefficiency in education system that led to so many dropouts. In Kenya, Kiprop-Marakis (2022) noted that public secondary education system in Kenya still faced challenges related to school registration, retention, accomplishment and completion.

Research has shown that family-based determinants have major influence on students' academic participation in secondary schools (Marrietah, 2015). Family-based determinants refer to factors found in the family that either enhance or limit students' academic participation in public day secondary school (Munyalo, 2017). Family based determinants such as; parents' ability to pay user charges, parental involvement in students' learning activities, home-school distance, parental level of education and home-environment influence students' enrolment, attendance and completion (Utami, 2022).

Parents' ability to pay user charges refers to the parents' financial power to meet the school financial requirements of their children (Milcah, Kiprop & Too, 2018). User charges are the fees that households have to pay for the publicly provided education (Jane & Benjamin, 2016). User charges include; cost of school uniform, Parents- Teachers Association (PTA) dues, cost of school lunch, transport cost, tuition fees, and cost of textbooks, rental payments, exam fees and community contribution to the District Education Board among others (Wambui, 2016). User charges have played a great role in keeping the children from low economic background out of school and making it very hard for them to remain in school and complete basic education (Kabiru, Ngugi & Kaboro, 2018). Thus, the ability of the parents to pay user charges determines how far the children will be enrolled, daily attendance and completion.

As indicated from various studies, in most countries secondary education has been made free to enhance students' academic participation. In Britain, free education is financed up to secondary level; parents only ensure that their children attend school daily and it is the responsibility of the government to avail education facilities (Moon & Mayes, 1993). In Canada, the government noticed that some parents were unable to pay school fees for their children and therefore school levies were integrated in education system to ensure that all children got education without leaving some behind due to fees issues (Khamati & Nyongesa, 2013). In Ghana, free basic education has been provided since 1996. The primary and lower secondary education became free under the Free Compulsory Universal Basic Education (FCUBE). However, indirect fees were introduced in some schools to replace the lost funds as a result of school fees abolition (Akyeampong, 2009).
In Kenya, Free Secondary Education programme was officially launched in 2008 so that all the children who completed primary education could get access to secondary education. Also under new constitution 2010, the right to Free Basic Education was expanded to secondary education (Constitution of Kenya, 2010). The Basic Education Act of 2013 puts it clear that "no person shall while admitting a child to a public school or basic education institutions collect any admission fee". It is the responsibility of the Cabinet Secretary to ensure compulsory admission, attendance and completion of basic education by every child.

However, schools are permitted to impose other levies provided they are approved by the Cabinet Secretary in consultation with the County Education Board (CEB) and that no child shall be denied education because of failure to pay such charges (Basic Education Act 2013). According to the sessional paper no. 1 of 2019, secondary schools in Kenya are currently financed through capitation grants from the government programme and user charges by households. However, despite the capitation grants from the government and substantial allocation of resources, the sector still faces major challenges related to cost and financing education (sessional paper no.1 of 2019).

Parental involvement in students' activities can be defined in relation to a number of different parental behaviours including; attendance of PTA meetings, consultations and communication with teachers and participation in academic workshops of their children (Jensen & Minke 2017). In United Kingdom, the number of parents who routinely support their children's education has significantly increased (Hartas, 2024). In German, parents and the state have a joint educational duty that is fulfilled through co-operation between parents and the school (Paseka & Killus, 2022). According to Boonk et al. (2018), learners who had their parents committed and involved in their learning activities, had higher educational expectations and performed well in reading and mathematical activities at the end of learning course. Garcia et al (2019) argued that parental involvement is among the major factors that contributed students' participation and attainment in academics. Onyedikachim and Ezekiel-Hart (2021) noted that enhanced parental involvement in educational process increased completion rates, led to realization of better school attendance besides increasing students' motivation to be self-driven in their academic pursuit.

Home-school distance refers to the maximum distance which students should travel to reach school (Mantovani, Gasperoni & Santangelo, 2022). Distance from school can be a major factor in preventing children from participating in secondary education or causing them to drop out (UNICEF, 2015). Long distance to and from school has been an area of interest to scholars in various countries such as America, Europe, Africa as well as Kenya as a factor that may affect students' participation in secondary school (World Bank,

2019). According to UNICEF (2015), building schools near students' home is one of the most cost-effective long-term solutions to increase access and retention in secondary schools. Also decreasing distance decreases the likelihood of dropping out of students by 50%.

Evans et al. (2019) noted that building schools near students dramatically increases attendance and retention rates for all secondary school students. An analysis of 31 villages in North-Western Afghanistan where local schools were constructed, showed that there was a significant improvement in girls' enrollment rates (Burder & Linden, 2013). In Indonesia more than 60,000 new schools were built in strategic places in order to decrease the distance to school and reach as many students as possible (Winthrop & Kwauk, 2016). In Kenya, some of the students in day secondary schools have to travel very long distance on foot or by bicycles to access education (Ogur, 2014). Reviewing distance from home to school, Sabean (2007) gave a suggestion that for learners in primary school, the maximum distance should be 1.6km and for secondary school students the maximum distance should be 3km.

Parental level of education means the highest educational level that has been attained by the parent who lives with the child (Onyedikachim & Ezekiel-Hart, 2021). The level can be; primary level, secondary level or tertiary level. Parental level of education is a major factor in determining students' enrollment, attendance and completion (Christensen, 2020). Educated parents better understand their role and responsibilities in their children's education and therefore they are always active in participating in their educational activities in school and at home (Yulianti, Denessen & Droop, 2019).

A study in South-Eastern Europe carried out by Radiu (2011), revealed that parent's level of education created a feeling of competence, capableness and adequacy towards commitment and involvement in their children's learning activities. In Canada, research conducted by Dirkson and Mcintosh (2010), revealed that children who come from disadvantaged background would actually perform better in school if they came from home that had positive attitudes and that strongly supported their parents. In Nigeria, a

study carried out by Ogbugo-Ololube (2016) found out that years of schooling completed and educational achievements of the students depended very much on the educational level of their parents.

Home environment refers to the emotional support shown by the parents/ guardians and relatives when interacting with their children, provision of arousing, energizing and learning experiences in the home (Li, Tang & Zheng, 2023). Home is the first institution of a learner that has significant relationships with the students' overall life. Home environment includes the mutual interactions of family members and respect in the family (Khan, Begum & Imad, 2019). Family members' interactions with learners influence their participation in education. Supportive home environment enhances students' confidence and self-esteem and enable them to be sociable while students living in non-supportive home environment struggle in every walk of life including educational participation (Malik, Kohli, & Kumar, 2013). Positive home environment is the prominent indicator of students' successful participation in education (Roksa & Kinsley, 2019). Educational participation of students living with parents and relatives who abuse drugs are negatively affected (Nguthan, 2013).

Among the major challenges confronting Makueni County is that some students do not participate fully in education due to its high costs, poverty and lack of facilities, as well as teenager and early pregnancy. There have been considerable school dropouts in the County (Government of Makueni County, 2022). Through Free Day Secondary Education (FDSE) policy and government capitation, the total number of learners who enroll in Form 1 should participate wholly in secondary school activities and complete after 4 years (Ndolo, Simatwa & Ayodo, 2016). However, in Makueni County the learners who enrolled in form 1 (between 2016 -2018) did not all participate wholly in the school activities either because some dropped out or repeated.

Table 1.1 revealed the enrolment, completion and dropout rates for the period 2016-2021.

Table 1.1: Enrolment, Completion and Dropout Rate during 2016-2021

Year	Enrolment in Form 1	Completion in Form 4	Dropout
2016- 2019	28,881	23,990	4,891 (16.94%)
2017- 2020	28,734	25,003	3,731 (12.98%)
2018- 2021	29,698	26,024	3,674 (12.38%)

Source: County Director of Education Office, Makueni County (2022)

Generally, there existed some evidence that family based factors were likely to determine students' academic participation in secondary school education. It was therefore vital to carry out a study to establish the influence of family-based determinants on students' academic participation in public day secondary schools in Makueni County.

1.2 Statement of the Problem

Free Day Secondary Education (FDSE) programme was officially launched by His Excellence President Mwai Kibaki in 2008. This was done because after introduction of Free Primary Education (FPE) in 2003, many primary graduates could not get access to secondary education mainly due to fees. Under normal circumstances, FDSE programme should ensure that the number of students who enroll in form 1 participate wholly in education and graduate after 4 years. However, the case is totally different in Makueni County. The data obtained from Makueni County Education Office between the years 2016 -2021 (Table 1.1) shows that; In 2019, a total of 4,891 students did not complete form 4 accounting for 16.94% of students who either dropped out or repeated. In 2020 a total of 3,731students did not complete form 4 accounting for 12.98% of students who either dropped out or repeated. Also in 2021, a total of 3,674 students did not complete form 4 accounting for 12.38% of students who either dropped out or repeated. In Makueni County, most households are poor (Kenya National Bureau of Statistics (KNBS) Makueni County, 2020) and hence family-based determinants play a big role in students' participation in secondary schools. Therefore, there was a need to carry out a study to establish the influence of family-based factors on students' academic participation in public day secondary schools in Makueni County Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

The main objective of the study was to establish the influence of family- based factors on students' academic participation in public day secondary schools in Makueni County – Kenya.

1.3.2 Specific Objectives

This study sought to achieve the following specific objectives;

i) To determine the influence of parents' ability to pay user charges on students' academic participation in public day secondary schools in Makueni County.
ii) To establish the influence of parental involvement in students' learning activities on students' academic participation in public day secondary schools in Makueni County.
iii) To determine the influence of home-school distance on students' academic participation in public day secondary schools in Makueni County.
iv) To establish the influence of parental level of education on students' academic participation in public day secondary schools in Makueni County.
v) To determine the influence of home environment on students' academic participation in public day secondary schools in Makueni County.

1.4 Research Hypotheses

The following research hypotheses were formulated and tested in line with the study objectives:

i) **H_o1:** There is no statistically significant influence between parents' ability to pay user charges and students' academic participation in public day secondary schools in Makueni County.
ii) **H_o2:** There is no statistically significant influence between Parental involvement in students' learning activities and students' academic participation in public day secondary schools in Makueni County.

iii) **H_o3:** There is no statistically significant influence between Home-school distance and students' academic participation in public day secondary schools in Makueni County.

iv) **H_o4:** There is no statistically significant influence between Parental level of education and students' academic participation in public day secondary schools in Makueni County.

v) **H_o5:** There is no statistically significant influence between Home environment and students' academic participation in public day secondary schools in Makueni County.

1.5 Significance of the Study

The study findings may be of great use to many stakeholders in education. First, the findings of this study may be of great benefit to the Ministry of Education in giving insight on the influence of family-based factors on students' academic participation in secondary school education and so re-think the strategies and measures to use to reduce the influence. Secondly, to the management and educational officers in Makueni County, the finding of this study may assist them to re-think ways to source finances to ensure that students from poor households remain in school and complete the course. Thirdly, the findings of this study may act as a basis for evaluating students' participation in secondary education in relation to the family-based factors by the school management which can in turn help to identify if such factors do also influence the overall academic performance in the school. Also, the findings of this study may enlighten the planners and educators on possible strategies of enhancing students' academic participation in public day secondary schools. The findings of this study may add to the growth of knowledge on students' academic participation in secondary schools.

1.6 Limitations of the Study

The limitations of the study are aspects of the study that hinders a study and its findings (flaws and shortcomings of the study). First, in some schools, principals and class teachers were not available to respond to the study questions. The researcher made arrangements for another visit on another day and in some schools deputies stepped in for

the principals. Secondly, some public day secondary schools were not easily accessible due poor infrastructure. The researcher used motorbike to get to those schools. Since the study was conducted in public day secondary schools in Makueni County, generalizing its findings to other counties was limited.

1.7 Delimitations of the Study

The study was confined to public day secondary schools in Makueni County. The study focused on family-based determinants on students' academic participation in public day secondary schools in Makueni County under the following components; parents- ability to pay user charges, parental involvement in students' learning activities, home-school distance, parental level of education and home- environment. Students' academic participation in this study was confined to enrolment in school, regular school attendance and completion of studies. The study participants were; principals, Form 4 class teachers (2022), Parents Association (PA) chairpersons and area chiefs in the community. Data was collected using; questionnaires, interview schedules and document analysis. The study findings can only be generalized to other counties in Kenya with similar characteristics with caution.

1.8 Assumptions of the Study

This study was carried out on the assumption that; all respondents gave genuine and honest responses of their perception, feeling and judgment to the items in the questionnaires and interview schedules, respondents conformed to all the conditions set for the study, family –based factors influenced students' academic participation in public day secondary schools in Makueni County and also documented data relevant to the study was available in public day secondary schools.

1.9 Organization of the Study

The research study was organized in six chapters. Chapter one is introduction and comprises of; Background to the study, statement of the problem, objectives of the study, research hypotheses, significance of the study, limitations, delimitations, assumptions and organization of the study. Chapter two presents literature review based on sub-themes

derived from study objectives which include; Students' academic participation in public secondary schools, parent's ability to pay user charges and students' participation in public secondary schools, parental involvement in students' learning activities and students' participation in public secondary schools, home-school distance and students' participation in public secondary schools, parental level of education and students' participation in public secondary schools and home environment and students' participation in public secondary schools, summary of literature review, theoretical framework and conceptual framework. Chapter three explores research methodology which involves; research design, target population, sampling techniques and sample size, research instruments, data collection procedures, data analysis and ethical considerations. Chapter four comprises of presentation of research results based on study objectives. Chapter five comprises of discussion of the research findings based on research objectives. Chapter six presents conclusions and recommendations and suggestions for further study.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter presents the literature reviewed in relation to family-based determinants influencing students' academic participation in public day secondary schools. It focuses on: students' academic participation in public secondary schools, parents' ability to pay user charges, parental involvement in students' learning activities, home-school distance, parental level of education and home environment and students' academic participation in public secondary schools. Summary of literature review is provided and also theoretical framework of the study as well as the conceptual framework.

2.2 Students' Academic Participation in Public Secondary Schools

Under this section, a number of studies that revealed students' academic participation in public secondary schools in different regions were reviewed. Yakubu and Afolabi (2020) assessed the impact of private cost of education on students' participation in public day secondary schools in Kaduna South Local Government, Kaduna State, Nigeria. The study used a survey research design and targeted principals, teachers and students. The study reported that low participation in secondary schooling had been a matter of concern for policy makers and practitioners in this local government despite subsidized education as school dropout problem had reached epidemic proportions. The study linked this problem with the private costs borne by the students or their parents/guardians. These costs included tuition fees, examination fees, expenditure on books, stationery, board and lodging, transport and other incidental expenses. Even though this existing study focused on issues under study in this current research, it was undertaken in Nigeria and therefore, generalizing its findings to the context of public day secondary schools in Makueni County was limited. Moreover, the study relied on a single research design unlike this current study which used a mixed methods approach which allowed for comprehensive examination of the issues under study.

In their study, Giro and Chui (2023) examined the effect of hidden costs on students' academic participation in public day secondary schools in Mandera West Sub-County, Mandera County, Kenya. The study applied a mixed methods approach and targeted 6 principals, 209 teachers and 102 parents' representatives. The study established that students' participation in public day secondary schools in this sub county was still low despite the efforts by the government. According to this study, despite increased enrollment linked to government's 100.0% transition policy, the number of students who completed their secondary education was low due to high dropout rates. This concern was attributed to hidden costs that parents and guardians had to cater for. This study was carried out in Mandera West Sub-County and hence, its findings could not be generalized in the case of public day secondary schools in Makueni County. This past study also considered schools in one Sub County while current study focused on schools spread in the various sub counties in Makueni County thus painting a clearer picture of students' academic participation in the entire county.

The study undertaken by Lumosi (2022) evaluated the effect of parent funded supplies on students' participation in secondary education in public day secondary schools within Kakamega East Sub-County, Kenya. A mixed methods approach was employed and school principals, Form 4 class teachers, parents and students as well as the Sub County Director of Education participated in the study. Data was collected using questionnaires, interview schedules, FGDs and data sheets. According to this study, the initial entry into the secondary school did not guarantee completion of the four year cycle. The study noted that despite the numerous interventions by the government of Kenya, cases of students being absent from school, failing to attend lessons despite being present in school and school dropout leading to high non-completion rates were still reported in public day schools in this study. The study noted that this situation was aggravated upon transition to the senior classes of Form 3 and Form 4 and extra cost of secondary education was pointed out a major contributor to this challenge. This existing research study was also carried out in a different context and hence, its findings could not be generalized in the context of public day secondary schools in Makueni County due to contextual differences likely to affect the findings obtained. The study also considered

schools in a single sub county whereas in the current study, schools spread in the various sub counties in Makueni County were targeted thus making this study extensive.

Mukonyi and Onkware (2020) explored the strategies applied in improving students' participation in secondary school education in Kakamega County, Kenya. The study used the ex post facto evaluation research design and the target population comprised of principals, guidance and counseling teachers, parents/guardians, religious leaders, chiefs, NG-CDF managers and sub county directors of education. Data used was gathered using questionnaires, interview schedules and focus group discussions as well as document content analysis as secondary data collection tools. The study argued that while the introduction of free primary education and subsidized secondary education had resulted to significant increase in enrolment of students to secondary schools, a number of factors had affected the enrolment, retention, progression and completion of studies among a considerable number of children, boys and girls alike. The factors underlined in this study included poverty, broken family units, child labour, drug and substance abuse, orphan hood, teenage pregnancies, as well as boy-girl relationships. This existing study was carried out in Kakamega County and hence, the generalizability of its findings in the context of Makueni County was limited.

While examining the implications of child labour on boys' and girls' participation in public day secondary school education in Kiminini Sub-County, Trans Nzoia County, Kenya, Wakwoma (2021) noted that there were various cases where learners failed to attend school on a regular basis while others could not continue being in school. Consequently, they dropped out of school. The study had used a descriptive survey research design and principals, class teachers, parents and students took part in the study. Aside from considering public day secondary schools in a different context, this study employed a single research design which was limiting in terms of methodology. The current study was carried out in public day secondary schools spread out across Makueni County and its comprehensiveness was enhanced by the use of a mixed methods approach.

Apakoreng, Munyua and Atoni (2021) investigated the effect of home-based factors on girls' participation in education in public secondary schools in Pokot Central Sub-County, Kenya. The study adopted an ex-post facto research design and targeted principals and PTA chairpersons of the sampled schools. Data was collected using questionnaires, interview schedules and document analysis guide. The study reported moderate participation of girls in education in the sampled schools in terms of daily school attendance, transition from one class to another, completion rate, academic achievement and participation in co-curricular activities. The study attributed this finding to the involvement of the county government, the central government and other organizations in promoting education of girls in the area. This past study was conducted in a different region and only assessed girls' participation in education. On the contrary, the current study was undertaken in Makeuni County and considered both boys and girls academic participation.

Kasai (2019) assessed the kind of relationship that existed between subsidized secondary education and students' participation in public secondary schools in Wajir East Sub-County, Kenya. The study employed a correlational research design and the target population comprised of learners, teachers and principals as well as the Sub-County Directors of Education. The study reported that despite the introduction of subsidized secondary education to enhance access, retention and completion of studies among learners, declining levels of school completion rates continued to be reported across the sub county. According to the study, a non-completion rate of 5.7% in public secondary schools in this sub county had been recorded between 2013 and 2018. The study argued that difficulties experienced by parents in paying extra fee charges imposed by schools due to poverty and social cultural factors significantly reduced students' participation in public secondary schools in the sub county. Despite being highly relevant to this study, Kasai (2019) was undertaken in a different region thus limiting the generalizability of its findings in the context of Makueni County. The current study provided up to date and comprehensive evidence of students' participation in public day secondary schools in Makueni County.

Chepkoech (2018) examined the influence of tuition free secondary educational subsidy on students' participation rates in public secondary schools in Kasarani, Nairobi County, Kenya. The study adopted a descriptive survey research design and targeted principals, class teachers and students. The study findings revealed that even though enrolment and transition rates had been increasing in these schools since the introduction of tuition free secondary education, there were still several students who did not regularly attend school or complete their secondary education. This past study was carried out in a different context and was purely quantitative making it less comprehensive. The current study provided current data on students' academic participation in public day secondary schools in Makueni County and by using a mixed methods approach; the research problem was comprehensively explored.

Ogur (2014) investigated the home and school based factors influencing students' participation in public day secondary schools in Nyatike Sub County, Migori County Kenya. The study employed a mixed methods approach and targeted principals and students. The study findings revealed that the participation of students in the public day secondary schools in this sub county was low. The study reported that while secondary school educational opportunities had continued to expand, a large percentage of students do not enroll into secondary education and in many cases those who enrolled did not complete the cycle as demonstrated by significant drop out rates. Some of the factors found to reduce students' participation in public day secondary schools in this sub county included family income, parental level of education as well as the adequacy and competency of school personnel. While this past study was relevant focused on issues examined in the current study, it was conducted in Migori County. Hence, generalizing its findings in the context of public day secondary schools in Makueni County was limited.

2.3 Parents' Ability to Pay User Charges and Students' Academic Participation in Public Secondary Schools

Various studies that had attempted to show the link between parents' ability to pay user charges and students' academic participation in public day secondary schools were

reviewed. The World Bank carried out a study in 2009 on the types of user charges for 75 countries. Survey research design was used in the study. The study showed that approximately 71 countries had same type of user charges but 4 countries offered free secondary education. From the study, the common user charges were money for uniform, textbook, tuition among others. It was reported that user charges influenced students' enrolments in secondary schools, where majority of the parents said that it was not easy to get school fees and that is why students were occasionally absent from school (World Bank, 2009). The study also revealed that, these costs represent large percentage of total household spending and are particularly burdensome for those families that face tough choices about which children to send to school and for how long should they stay in school. The study was international and survey research design was used but the current study was carried out at the county level and employed concurrent strategy of mixed methods research design hence improved methodolgy.

Morgan et al. (2012) carried a systematic review on the evidence of the impact of eliminating school user fees in low income developing countries. The study was undertaken in a number of Sub-Saharan African countries such as Kenya, Uganda and Malawi. The data collection method included electronic keyword searches of bibliography database, journals, examination of research firms and grey literature and contacting experts in the field. The study reported that fees elimination interventions increased educational access, quality and student persistence. From the study, it was concluded that eliminating school fees such as tuition fees and providing school uniforms strongly increased school enrolments and had a positive impact on the education and non-education outcomes including; age at school entry, persistence, grade advancement, attendance, re-enrolment and delayed marriage and child bearing. According to the study, user charges could lead to exclusion of children whose parents did not pay school fees leading to absenteeism and non-participation.

Whereas the study by Morgan et al. (2012) provided crucial insights in to the linkage between parents' ability to pay user charges and students' academic participation in schools, it was purely qualitative as it was based on a systematic review of literature.

Therefore, no statistical tests could be undertaken to actually determine the link between parents' ability to pay user charges and students' academic participation in schools. In the current study, the use of quantitative data alongside qualitative data enabled inferential analysis which was helpful in revealing the effect of parents' ability to pay user charges on students' academic participation in public day secondary schools in Makueni County. The use of mixed methods approach made the current study more comprehensive as the past study relied on a single research design.

Giro and Chui (2023) examined the effect of hidden costs on participation of students in public secondary schools in Mandera West Sub-County, Mandera County, Kenya. The study established that parents and guardians' inability to pay other basic levies necessary in covering meals, academic trips, PTA and uniforms had resulted to low students' participation in public secondary schools in this sub county particularly in relation to completion rates as depicted by the considerable number of students dropping out of school. The study argued that the mentioned costs were not catered for by the Ministry of Education but were very important in facilitating students' participation in academic activities at school. The study recommended that the Ministry of Education should regulate extra costs which public secondary schools were charging outside the capitation funds. This according to the study; would go a long way in ensuring the secondary schools had standard hidden costs to meet to avoid overcharging parents and guardians. While this past study touched on issues under assessment in the current research study, it was conducted in a different context thus limiting the generalizability of its findings to the context of public day schools in Makueni County. Moreover, the current study was more extensive as it covered public secondary schools across the whole of Makueni County unlike this existing study which only focused on schools in one sub county.

A study carried out by Amunga et al. (2016) on the effect of user charges on access to basic education in Kenya concluded that despite the advancements in accessing primary education, access to secondary education had remained quite low especially for students from low socio-economic status. The study used a systematic literature review approach. Evidence showed that many poor children are locked out by the user charges. From the

study, it was evident that majority of the schools have all types of levies that have pushed up the cost of secondary education ranging from payment for plastic chairs, motivation, desks, beds, purchasing of school buses, development funds among others. It was also noted that many of the levies are re-introduced using education ministry rules which allow schools to charge other levies with the approval of Board of Management (BOM) and County Education Board (CEB). Also, school principals indicated that they hold PTA meetings where parents suggest the need to increase fees towards quality and efficiency. Whereas this past study focused on user charges in secondary schools, it was too general focusing on Kenya as a whole. Moreover, the study was purely qualitative having used a systematic literature review approach hence no statistical tests were conducted to determine relationships existing between variables. In the current study, a mixed methods approach was adopted in order to help comprehensively determine the effect of parents' ability to pay user charges on students' academic participation in public day secondary schools in Makueni County using up to date data.

Wanjala (2017) conducted a study on impact of subsidized fees on students' access to quality education in public secondary schools in Wajir County, Kenya. The study target population was; 40 principals, 40 BOM chair persons and 270 secondary school teachers in Wajir County. The study sample was; 20 principals, 20 BOM chair persons and 54 secondary school teachers which were randomly selected making a total of 94 participants. Quantitative data was analyzed using descriptive and inferential statistics based on study objectives. Qualitative data was thematically analyzed also based on study objectives. The study findings showed that students' enrolment remained low even after the introduction of subsidized secondary education mainly because the finances were inadequate forcing schools to charge various user charges which some parents and guardians could not raise. Just like many other reviewed studies, the study by Wanjala (2017) was conducted in a different context and did not include parents as research participants. The current study determined the effect of parents' ability to pay user charges on students' academic participation in public day secondary schools in Makueni County and considered the views of PA chairpersons and area chiefs who are important stakeholders in secondary schools.

King'ori (2015) conducted a study on influence of hidden cost in education on students' participation in public secondary schools in Kikuyu Sub County, Kenya. The study used descriptive research design, stratified and simple random sampling techniques. The respondents were; 28 principals, 196 teachers and 370 students. Research tools were questionnaires and interview schedules. It was revealed that the cost of school meals, PTA levies and school uniform lowered the students' academic participation in secondary schools. This past study was carried out on a smaller geographical area when compared to the current study which considered public secondary schools spread out in Makueni County. Hence, the findings of this past study could not be automatically generalized in the current context.

A study conducted by Mutegi (2015) on the influence of unit cost of education on students' enrollment rates in public secondary schools in Tharaka South Sub-County revealed that, a child was not likely to enroll in a secondary school if the household expenditure was higher than the government expenditure. The study used correlation research design and Yamane's formula in determining the sample size. 26 principals and 393 household heads were used as research respondents. Data collection tools were questionnaires, interview schedules and education document analysis. This study differed from the current study as it was conducted in a different context thus limiting the generalization of its findings to the context of public day secondary schools in Makueni County. Also, the study covered a smaller geographical area and only considered students' enrolment rates. The present study focused on the effect of parents' ability to pay user charges on students' academic participation public day secondary schools in Makueni County where students' academic participation was operationalized in terms of enrolment in school, regular school attendance and completion of studies.

Chepkoech (2018) did a study on influence of tuition free secondary educational subsidy on students' participation rates in public secondary schools in Kasarani Sub County, Nairobi County. The study used descriptive research design. The sample size consisted of; 210 boys, 131 girls, 18 principals and 26 class teachers which were sampled using purposive and random sampling technique. From the study, it was revealed that

subsidized secondary education increased participation rates among the secondary school students. This past study was purely quantitative making it less comprehensive. Moreover, the study did not focus on parents' ability to pay user charges but instead concentrated on governments efforts. The current study provided current data on parents' ability to pay user charges and students' academic participation in public day secondary schools in Makueni County and by using a mixed methods approach; the research problem was comprehensively explored.

Bomett (2019) carried out a study on the dynamic gross enrollment rate in relation to access and equity of subsidized secondary education in Kenya. The study focused on public secondary schools in Eldoret West Sub County in Uasin Gishu County. Descriptive survey research design was adopted. The target population for the study comprised of the sub-county education officer, 16 principals and 21 class teachers. The study concluded that FDSE and tuition free secondary education had helped increase access and participation of students in secondary education as depicted by increased gross enrolment rates. Nonetheless, this study did not take into consideration the user charges which the households' had to pay for the students to fully participate in secondary education. The study also adopted a single research design. The current study determined the effect of parents' ability to pay user charges on students' academic participation in public day secondary schools in Makueni County and focused on enrolment rates but also students' regular school attendance and completion rates. The current study also adopted a mixed methods research design which made the study more comprehensive.

Wainaina (2016) did a study on the effect of user charges on participation in education among students in public secondary schools in Kitui County, Kenya. Target population was all the secondary schools in Kitui County. The sample size consisted of 154 research participants who comprised of 21 principals and 133 class teachers. Descriptive survey research design was employed in the study. Two research instruments were used in this study namely, questionnaires and document analysis. The data collected was analyzed using descriptive statistics and was presented using frequency tables and charts. From the study findings, it was revealed that 16.0% of the students were absent from school due

user charge. A number of user charges such as purchase of text books, motivational charges among others were charged. 55% of the principals and 49% of the teachers felt that the escalation of fees and levies charged contributed to the poor performance among students. Though this past study was relevant in the current research, it was descriptive in nature and hence, no test of relationship between variables was conducted. In addition, the study was conducted in a different county and hence, generalizing its findings to the case of public day secondary schools in Makueni County was limited. Also, the views of the community members such as parents regarding payment of user charges were not taken in to account. In the current study, the effect of parents' ability to pay user charges on students' academic participation in public day secondary schools in Makueni County was determined where the views of principals, class teachers, PA chairpersons and area chiefs were considered.

Miako (2012) conducted a study on school levies and their effects on access and retention since the introduction of the subsidized secondary education in Nyandurua North District, Kenya. Descriptive survey design was used in this study. Target population was 24 principals, 168 class teachers and the district education officer (DEO) in Nyandarua District. Stratified sampling and simple random sampling techniques were employed to select the study sample. Data was collected using questionnaires for the principals and class teachers, interview schedules for the DEO and document analysis. The study concluded that the non-attendance of the learners due to failure to pay user charges affected school programs in the district. More specifically, absenteeism led to failure of some learners to participate in schools' activities. The study did not consider the views of parents as key stakeholders in schools. In the current study, the effect of parents' ability to pay user charges on students' academic participation in public day secondary schools in Makueni County was assessed by relying on the views of principals, class teachers, PA chairpersons and area chiefs.

2.4 Parental Involvement in Students' Learning Activities and Students' Academic Participation in Public Secondary Schools

Bunijevac (2017) conducted a study on parental involvement as an important factor for successful education. The study involved the systematic review of available literature. The study argued that involvement of parents in their children learning activities through monitoring their children's learning at home and participating in activities organized by at schools such as parent-teacher conferences significantly impacted students' academic achievements and graduation/completion rates. The study noted that parental involvement encouraged children to attend school regularly noting that parents' passive participation in their children's learning encouraged absenteeism and drop out from school. This past study was qualitative in nature and hence, no statistical tests were undertaken to determine the influence of parental involvement in students' learning activities on students' academic participation. The study also did not focus on school enrolment as part of students' academic participation. Compared to this past study, the current research study employed a mixed methods approach which allowed for the collection of up to date quantitative data that was used to determine the effect that parental involvement in students' learning activities had on students' academic participation with a particular focus on public day secondary schools in Makueni County. Students' academic participation was also operationalized in terms of enrolment, school attendance and completion.

Utami (2022) investigated the role of parental involvement in students' academic outcomes in Indonesia. This was a qualitative study where the data was collected using interview schedules and observation. The study established that active parental involvement in children's education was linked to improved school attitudes and ultimately, improved school attendance. The study underscored that parents who were actively interested in their children's learning regularly attended school events and participated in crucial decision making processes that impacted learning besides maintaining open lines of contact with teachers and collaborating with them to address any difficulties or issues that might occur. When likened to the current study, this existing study employed a single research design and statistical tests could not be undertaken to

determine the relationship between the study variables. The study was also conducted in a larger geographical area and hence generalizing its findings in the context of public day secondary schools in Makueni County was limited. Moreover, this past study only addressed school attendance while the current study also focused on enrolment in school and completion of studies.

Emmanuel and Andala (2021) assessed the link between parents' involvement in education activities and learners' academic performance in 12 schools in Rwanda. The study adopted mixed methods approach and questionnaire, interview guide and document analysis review were used as data collection instruments. The study established that parents' involvement in education activities of their children involved the provision of teaching and learning materials, participation in parent meetings, sports days, the annual academic days, parenting seminars and also participation in various groups such as the PTA. Students whose parents frequently followed up on their academic progress, behaviour and school attendance performed better than students' whose parents were absent in their academic activities. Whereas this study outlined the ways in which parents could be involved in students' learning activities, its focus was on academic performance while in the current study, students' academic participation was assessed in terms of enrolment, regular school attendance and completion of studies.

Hartas (2015) conducted a study on patterns of parental involvement in selected OECD countries: Cross-National Analysis Programme for International Students Assessment (PISA). The target population was 14 countries. Stratified and random sampling techniques were used to select the study participants and questionnaires were used to collect data. From the study, it was concluded that parents /guardians routinely engaged with their children's educational and intellectual developments across the OECD countries. It was reported that parents/guardians consultations were ranging from every day to once or twice a week. Research findings showed that in most countries, nearly all the parents/guardians were reported to routinely visit their children's schools and often converse with them concerning how they are doing in school and other topics related to school life. From the findings it was revealed that, irrespective of their educational

qualifications, several parents were frequently involved in their children's learning activities. While the past study discussed the concept of parental involvement in students' learning activities, it did not attempt to link it to students' academic participation which was the objective in the current study.

Chansa-Kibali (2016) assessed parental involvement in early schooling in Zambia. The study used a descriptive research design. Purposive sampling technique was used and data was collected using questionnaires. The study participants included; 72 first grade learners, their parents and 45 teachers. Questionnaires were used to collect data from the participants. Data obtained was analyzed using descriptive statistics and results presented in percentages and bar graphs. The findings on parental involvement showed that most parents scored below the mean, 13% of parents were reported to have been involved in their children's progress once a year while 87% were reported to have been involved at least 2-3 times a year. Even though this past study focused on parental involvement in students' learning activities, it focused on early schooling level while the current study concentrated on secondary education. The existing study was also purely quantitative and did not determine the implications of parental involvement in students' learning activities on students' academic participation in terms of school enrolment, regular attendance and completion of studies, a key objective in the current study.

Orange et al (2022) did a study on parental involvement in education of learners with intellectual disabilities in Kenya. Phenomenological approach research design was used in this study. Cluster, purposive and snowball sampling techniques were used to select study samples. The sample size was 24 parents and the data was collected using face to face structured interviews. The study results showed that a greater number of the parents/guardians were not involved in their children's school activities, did not volunteer at school or provide sufficient learning resource, did not enlist as members of school committee and associations and did not engage in communication with the teachers to inquire about their children's academic progress as well as their wellbeing and these led to dropouts of the students. Despite focusing on parental involvement in students' learning activities, this existing study only considered students living with disabilities and

focused on Kenya in general. In addition, the study did not carry out in-depth analysis of the effect that parental involvement in students' learning activities had on students' academic participation, a focus in the current study. The existing study was purely qualitative while the current study ensured that the study phenomenon was comprehensively studied by adopting a mixed methods research design.

2.5 Home-School Distance and Students' Academic Participation in Public Secondary Schools

Sherpa (2022) assessed the impact of distance on learning outcomes using a case study of community school in Dhankuta District in Nepal. The study adopted a mixed method approach. The study established that the journey from students' residence to school every day may have adverse effects on students' daily school attendance and general learning outcomes. The study underlined that, students walking long distances to schools might face additional parental concerns about safety and might also be discouraged from attending school if they were punished for arriving to school late after a lengthy walk. This could create significant barrier preventing many children from attending school. The study concluded that home to school distance affected children's school participation due to physical barriers and the associated community surroundings. Despite being a resourceful reference point, this past study was also carried out in a different context and thus, generalizing its findings in the context of public day secondary schools in Makueni County was limited.

Dickerson and Mcintosh (2010) carried out a study on impact of distance to the nearest educational institute on the post- compulsory education participation decision in England. The study used longitudinal and survey research design. The research participants were youth cohort and the data was collected using interview schedules. The study found that for students from relatively socio-economically disadvantaged background, the distance from home to school affected their participation in post-compulsory education. It was further established that students who lived 8 km and above distance from a learning institution were not likely to participate in post- compulsory education by 27% as opposed to those who lived 2 km and below distance. The past study relied on a single

research design while in the current study, a mixed methods approach was employed allowing for in-depth investigation of the issues under study.

Focusing on community secondary schools in Makambako Town Council, Mhiliwa (2015) examined the effects of school distance on students' academic performance. The study adopted a mixed methods approach. The data used was collected using a semi-structured interview guide, questionnaires and documentary review, by involving 12 teachers, two educational officers, and 200 (80 boys and 120 girls) students. The study determined that longer distance travelled by students to school made them reach schools late and with empty stomachs. According to this study, location of school had led to mass academic failure to most of students, long walk among students had caused dropout from school and most of girls' student got pregnant thus failing to attain their educational goals. This existing only focused on drop out cases whereas the current study not only focused on students' completion of studies but also school enrolment and daily attendance in public day secondary schools in Makueni County.

Marique et al. (2022) conducted a study on school proximity on students' performance in mathematics in Philippines. The study employed survey research design where survey questionnaires were used to collect data. The target population was 171 respondents and simple random sampling was used to select research participants. From the study, it was concluded that there was a significant relationship between the students' distance to school and their academic performance in mathematics but no significant relationship between the students' mode of transport, house accessibility to the road and their academic performance in mathematics. This past study determined the relationship between performance in mathematics and students' home-school distance while the current study assessed the effect of home - distance on students' academic participation in school measured in terms of enrolment, school attendance and completion of studies. The study was purely quantitative while the current study adopted a mixed methods approach making it more comprehensive.

Baliyan and Khama (2020) carried out a study on how distance to school and study hours after school influenced students' performance in Mathematics and English in senior secondary schools in Botswana. The study was quantitative and correlation research design was employed. Target population was final year students in senior secondary Botswana studying Mathematics and English. Sample size was 168 students who were selected using simple random sampling technique to participate in the study. The study used questionnaires to collect data. Form the study, it was concluded that walking long distance to school indicated that students arrived at school with empty stomachs and often late hence low participation in school activities which affected performance in mathematics. Apart from focusing on a different context, this study was more interested in the link between home-school distance and students' performance in Mathematics and English while the current study investigated the influence of home-school distance on students' academic participation in public day secondary schools in Makueni County as measured in terms of enrolment, school attendance and completion of studies.

The study carried out by Oneaya and Onyango (2021) sought to determine the perception of school stakeholders on the effect of school- home distance on students' academic performance among community secondary schools in Rorya District, Tanzania. The study employed a convergent survey design under the mixed research approach. Quantitative data were collected through a questionnaire while qualitative data were collected through interview guide. Quantitative data was analyzed using descriptive statistics while qualitative data was analyzed using thematic analysis. The study established that long distance travelled by students reduced teacher-students' contact time as well as stomach ulcers, fatigue, headaches and related issues which reduced school attendance and completion rates. The study recommended that community, government authorities and other stakeholders needed to make plans to build school dormitories or hostels to reduce the adverse effects of school-home distance. Though relevant to the current study topic, this existing study was carried out in Tanzania and hence, due to differences in contextual factors, its findings could not automatically be generalized in the case of public day secondary schools in Makueni County.

Muthoka (2015) assessed the institutional factors that influenced students' participation in public secondary schools in Mwingi Central Sub-County, Kitui County, Kenya. The study used a descriptive research survey design, in which data were collected from 18 principals, 36 class teachers and 180 Form 3 and 4 students by means of questionnaires, interviews and direct observation. The study findings demonstrated that distance travelled from home to school by students was a very important concept in educational planning and school mapping as it greatly influenced the participation of learners in schools. From the findings of this study, majority of learners in the sub county were walking long distances to go to school. The study also established that long distances had a great influence on students' participation in these secondary in terms of enrolment and completion rates. According to this study, walking long distances to school resulted to absenteeism or irregular school attendance among students and exposed girl students to sexual harassment which forced some to abandon school. Moreover, some students were reported to engage themselves in indiscipline cases on their way from school. Though relevant to the current study topic, this past study covered a smaller geographical area when compared to the current study that was conducted across Makueni County.

Murunga (2011) carried out a study on students' participation in education in public day secondary schools in Vihiga District, Kenya. The research used descriptive research design. Research participants were; 12 head teachers, 48 Form 4 class teachers and 364 students. The research tools were interviews schedules and questionnaires. The study identified several factors which lead to low students' participation and among them was long home- school distance. According to this study, a large number of secondary schools were located far away from the learners' residence and this had some negative effects on school attendance. The research also revealed that high dropout rates in secondary schools in this district were as a result of long distances covered by the students among other factors. The study used a descriptive research design while the current study employed a concurrent strategy of mixed methods approach to collect both qualitative and quantitative data for comprehensive analysis.

2.6 Parental Level of Education and Students' Academic Participation in Public Secondary Schools

Muhammad (2015) conducted a study on the influence of parents' educational level on secondary school students' academic achievements in District Rajnpor in Pakistan. In this research, descriptive research design was used. The study participants were 200 students which were randomly selected. The research instruments used to collect in this study were; interviews, observation, questionnaires and document analysis. The research findings revealed that educated parents to a greater extent had more influence on their children's participation and performance in school. It was further established that parents with higher level of education showed a lot of interest and care in their children's learning activities and their choice of subjects and careers while in secondary schools. This study unlike the current study did not provide in depth insights in to the relationship between parental level of education and students' academic participation operationalized in terms of enrolment, regular school attendance and completion of studies. The past study also, only relied on the views of students while in the current study; information was obtained from several stakeholders including principals, teachers, PA chairpersons and area chiefs. The current study was also comprehensive as it used a mixed methods approach and provided up to date insights on the relationship between parental level of education and students' academic participation in public day secondary schools particularly in Makueni County.

Onyedikachin and Ezekiel –Hart (2021) did a study on the influence of educational level of parents on students' academic achievement in secondary schools in Abia State, Nigeria. The study used quantitative approach and descriptive survey research design. The study participants were 495 students from junior school and 495 students from senior secondary level. Data was collected using questionnaires which were administered to all the participants. From the study it was concluded that there exist a positive correlation between parents' educational level and the students' academic performance. This study was purely quantitative while in the current study, both qualitative and quantitative methods were used to comprehensively explore the study subject. The past study did not reveal the implications of parental level of education on students' academic participation

in terms of enrolment, school attendance and completion of studies which was the objective in the current study which was conducted in public day secondary schools particularly in Makueni County.

Amuda and Domiya (2016) explored parents' level of education as predictor of academic performance of Normal Curve Equivalent (NCE) Students of College of Education in the North Eastern States of Nigeria. The target population was 13,529 NCE students and survey research design was used. The sample size of the study was selected using random sampling technique and questionnaires were used to collect data. The study findings showed that education level of parents was not a significant predictor of academic performance among the NCE students in the North- Eastern states of Nigeria. This past study applied a single research design and was interested on the effect of parents' level of education on academic performance. On the contrary, the current study focused on the influence of parental level of education on students' academic participation in public day secondary schools in Makueni County as measured by school enrolment, daily school attendance and completion of studies. The current study also adopted a mixed methods approach for comprehensive analysis and targeted principals, teachers, PA chairpersons and area chiefs richer data.

Munyalo (2017) conducted a study on parent -related factors influencing learners' academic performance in Kenya Certificate of Secondary Education in Igembe North Sub-County, Kenya. The study used descriptive research design. The sample size consisted of; 40 principals, 80 class teachers and 320 students who were randomly selected. Interview schedules and questionnaires were used to collect data. From the study findings, it was noted that parents with higher educational achievements were more concerned with their children's learning activities and provided continuous academic guidance and motivation to their children. The study concluded that there is a strong positive relationship between parents' educational achievements and students' participation and performance in education. The past study considered schools in a small geographical area when compared to the current study which focused on schools spread out across Makueni County. Also, this past study focused on academic performance in

KCSE while the current study was interested on determining the influence of parental level of education on students' academic participation assessed in terms of enrolment, school attendance and completion of studies. The existing study also adopted descriptive research design while the current study used a mixed methods approach which ensured that the research topic was comprehensively explored.

Muthoka (2015) did a study on the institutional factors that influenced students' participation in public secondary schools in Mwingi Central Sub-County, Kitui County, Kenya. determined that the level of education of parents greatly influenced their roles in educating their children and participation in educational programmes. According to this study, parental education included educational level and the professional status of the parents and guardians. This in return influenced the household income level, their attitude towards schooling and their knowledge, skills and intellectual capacity required to support their children's learning. From the findings of this research study, it was established that majority of the parents were illiterate and another substantial percentage were primary school leavers with majority of them informally employed. Most of them were peasant farmers and local business people. Their professions also did not give them an opportunity to adequately support secondary education and enhance low participation rates in this sub county. Though relevant to the current study topic, this past study was carried out in a different region and covered a smaller geographical area.

2.7 Home Environment and Students' Academic Participation in Public Secondary Schools

Khan et al (2019) carried out a study on relationship between students' home environment and their academic achievements at secondary school level in Pakistan. The research used descriptive survey research design. Only questionnaires were used to collect data. The research participants were 510 students. From the research, it was concluded that positive home environment was important for the students' full participation in education. The main gaps identified from this study are; using questionnaires only to collect data and using students only as research participants. The current research filled these gaps by combining questionnaires with interview schedules

and documentary analysis and including; principals, class teachers, PA chair persons and area chiefs in the research. The study was also conducted in a different region and did not comprehensively provide information on the effect of home environment on school enrolment regular attendance and completion of studies, the measures of students' academic participation in the current study. The adoption of a mixed methods approach in the current study ensured that the influence of home environment on students' academic participation in public day schools in Makueni County was comprehensively explored based of the views of different stakeholders.

Muhamad et al. (2020) conducted a study on effects of home environment on students' academic achievement at higher level education in Pakistan. Descriptive research survey design was used in this study. The study used 300 respondents which were sampled from 4 provinces of Pakistan. Data analysis was done using descriptive analysis and the information was presented using percentages, bar graphs and frequency tables. Regression analysis was also used to show the correlation between dependent variables and independent variables. The study findings indicated that a weak positive correlation exist between home environment and students' academic achievements. The study concluded that children raised by loving, caring, secure, consistent and stable home environment have greater probability of developing well in socially, psychologically, physically, emotionally and morally hence participate fully in education. Despite its relevance, the past study focused on students pursuing higher education while in the current study, the focus was on students in public day secondary schools. The past study was purely quantitative whereas the current study adopted a mixed methods approach allowing for use of both qualitative and quantitative methods for richer study.

Uwera (2017) conducted research on home environment and students' academic performance in primary schools of Gicumbi District in Rwanda. Descriptive survey research design was used in this study. The sample size consisted of; 60 primary school children, 60 parents and 30 primary school teachers. Descriptive research design and purposive sampling technique were used in this study. Research instruments used were questionnaires and focused group interviews. The research findings showed that there

exist a relationship between students' academic achievements and a number of home factors. It was revealed that, the social relationships between learners and household members, availability of learning materials at home and provision of good time to the learners for revision while at home influenced learners' participation and performance in school. This past study was carried out in primary schools while the current study considered public day secondary schools.

Mwaniki (2016) carried out research on home-based variables influencing enrolment and participation of pupils in rural public primary schools in Narok North Sub County, Narok County, Kenya. Cross- sectional descriptive research design was used. Interview schedule and questionnaires were used to collect data. Target population was 1069 class 7 and 8 pupils and 466 primary school teachers. Through random sampling a sample of 212 respondents was used. From the study it was found that retrogressive cultural variables were a setback to attaining education especially among nomadic pastoralists' communities. This explained low enrolment and high dropout rates in the area since the social climate in the schools was not conducive for the development of the need for belonging and learning. This also explained why pupils frequently absent themselves from schools. While this existing study provided crucial insights on the influence of home environment and students' academic participation, it was conducted in a different region and focused on primary schools whereas the current study was conducted in public day secondary schools in Makueni County. The study also used a descriptive research design and only considered the views of pupils and class teachers while the current study adopted a mixed methods approach and considered the views of principals, teachers, PA chairpersons and area chiefs hence richer analysis.

Nguthari (2013) undertook a study on the effects of drug abuse by parents on school participation by primary pupils in Abothuguchi Division in Meru County, Kenya. Descriptive research design was used in this study. Data collection instrument used were questionnaires. From the study, it was concluded that majority of learners took up the responsibilities of the drunken parents at a very tender age since their parents suffered from hangovers due to drugs. The pupils also overworked in the evening and were tired,

fatigued from work assigned by the drug and substance abusing parents. This study was purely quantitative and only considered the issue of drug abuse among parents while the current study considered other measures of home environment such as family stability and the implications for students' academic participation in public day secondary schools in Makueni County. The current study used both qualitative and quantitative methods and considered the views of diverse stakeholders including principals, teachers, PA chairpersons and chiefs hence a lot of information was collected.

2.8 Summary of Literature Review

From the literature reviewed, it was evident that various studies had been carried out in an attempt to show how the selected family-based determinants influenced students' academic participation in secondary schools. Nonetheless, a number of research gaps were identified in these studies. A contextual gap was evident in the reviewed studies they were carried out in different regions and therefore, generalizing their findings in the context of public secondary schools in Makueni County was limited. For instance, the study by Giro and Chui (2023) was undertaken in Mandera West Sub-County, Utami (2022) focused on schools in Indonesia while Oneya and Onyango (2021) considered schools in Tanzania.

A conceptual gap was also noted in various studies. For instance, the study conducted by Baliyan and Khama (2020) focused on the link between distance to school and students' performance in Mathematics and English in senior secondary schools in Botswana; Munyalo (2017) assessed the connection between parental level of education and students' academic performance in KCSE while Emmanuel and Andala (2021) investigated parental involvement in students' learning activities and their academic performance. In the current study, the focus was on how selected family-based determinants influenced students' academic participation in public day secondary schools in Makueni County operationalized in terms of enrolment, school attendance and completion of studies.

It was also noted that, though a number of reviewed studies such as Murunga (2011), Morgan et al. (2012), Ogur (2014) and Muthoka (2015) were highly relevant reference points for this study, they were conducted several years back and hence, did not provide up to date information regarding the issues under study. Moreover, a methodological gap was depicted in several studies which either used a single research design or were purely qualitative and hence, no statistical tests could be conducted to determine the relationship between variables. The studies by Amunga et al. (2016) and Bunijevac (2017) were based on systematic literature review and hence, no statistical tests were conducted. On the other hand, the studies conducted by Muhamad et al. (2020) and Khan et al (2019) were purely quantitative and hence, did not allow for in-depth exploration of the issues under study. This gap was filled in this current study as a mixed methods approach was used where both qualitative and quantitative data was used to address the research questions.

2.9 Theoretical Framework

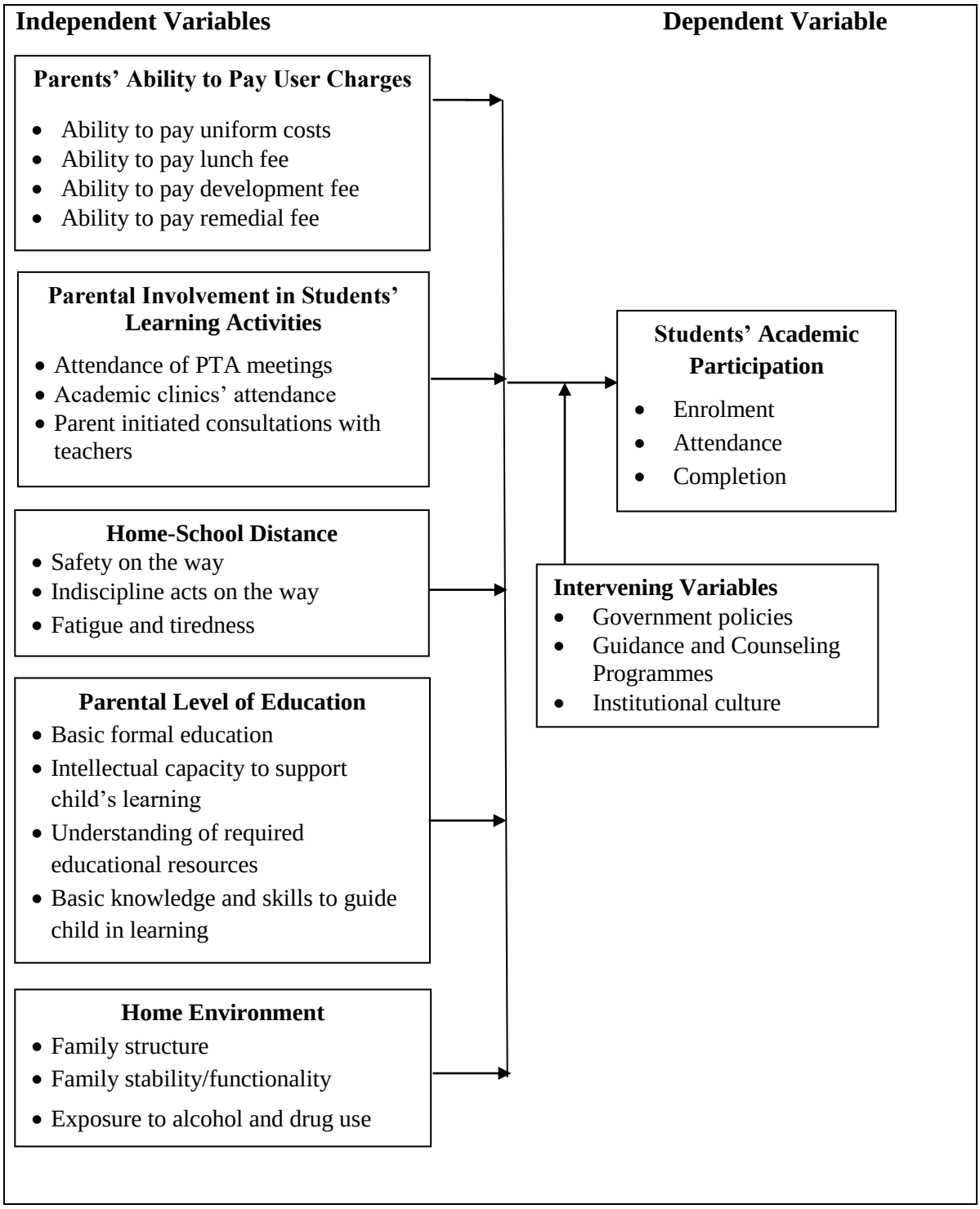
This study was guided by Human Capital Theory which was developed by Schulz in 1961 after he extensively studied economic growth in the USA. Economic growth was attributed to factors of production such as land, labour and capital. According to Schulz (1971), growth in output could be adequately explained by the investment in human capital that takes place inform of formal education, job training, improved health, mobility and migration of workers so that they can respond to the changing job opportunities. It is concerned with knowledge and experiences which are acquired through education and training.

According to Human Capital Theory, investing in education and training leads to economic growth through; increased productivity, social stability, healthier lifestyles, increased lifetime earnings, access to better paying jobs, reduced time spent in unemployment and speedier transition to enhance career prospects (Wahrenburg & Weldi, 2007). The strength of this theory is on the emphasis that investing in education boosts the living standards of people, expands employment opportunities, increases rate of employment and leads to high productivity. The theory is criticized in that education alone cannot determine individuals' earnings for there are other factors such as talents.

Irrespective of the criticism, this theory was the most suitable for this study since it emphasizes that government and individuals should invest in education for future gain inform of economic development. However, parents' ability to pay user charges, parental involvement in students' learning activities, home-school distance, parental level of education and home environment influence students' academic participation in secondary schools hence interfering with human capital development and economic growth. Adequate investment in education can only be realized through; high enrolment, regular attendance and high completion rates. Introduction of FDSE was one of the ways in which the Kenyan government adopted as a measure that assist in developing human capital through participation in secondary education. Therefore, it is also important for the government and individuals to deal with factors which influence students' participation in public day secondary schools in Makueni County so as to ensure high enrolment, regular attendance and high completion.

2.10 Conceptual Framework

The conceptual framework presented in Figure 2.1 was adopted in this study. The framework showed the independent variables, dependent variable and the intervening factors. Parents' ability to pay user charges, parental involvement in students' activities, home-school distance, parental level of education and home environment formed the independent variables of the study. The dependent variable was the students' academic participation in public secondary schools in Makueni County as measured by; enrolment, daily attendance and completion. However, there were other factors which were beyond the scope of this study which could intervene in the relationship between the dependent and the independent variables such as; government policy, institutional culture, guidance and counseling programmes in the schools.



Source: Researcher (2023)

Figure 2.1: Conceptual Framework of the Study

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

The chapter presents the methodology used in this study. It comprises of; introduction, research design, target population, sampling techniques and sample size, research instruments, data collection procedures, data analysis and ethical considerations.

3.2 Research Design

Research design is the conceptual structure within which research is conducted; it constitutes a blue print for the collection, measurement and analysis of data (Abutabenjeh & Jaradat, 2018). This study adopted mixed methods research methodology. This is an approach to inquiry that combines or associates both quantitative and qualitative forms (Vebrianto et al., 2020). Mixed method research methodology involves philosophical assumptions, the use of qualitative and quantitative approaches and mixing of both approaches in a study. According to McKim (2017), mixed method design is useful when either the quantitative or the qualitative approach by itself is inadequate to best understand a research problem or the strengths of both approaches can provide the best understanding.

The specific mixed method employed was concurrent research design in which the researcher converged or merged quantitative and qualitative data so as to provide a richer and comprehensive analysis of the study problem. In this design, the investigator collected both quantitative and qualitative forms of data at the same time and then integrated the information in the interpretation of the overall results (Baran, 2022). Therefore, the researcher used questionnaires to collect mainly quantitative data and used interview schedules to obtain qualitative data and at the same time obtained their specific language and voices about the topic. This proved advantageous since both quantitative data and qualitative data were collected.

3.3 Target Population

The target population refers to the population which the researcher would like to generalize the results of the study. The target population for this study was all the public day secondary schools and all the locations in Makueni County. As at 2022, Makueni County had 250 public day secondary schools (County Director of Education Office, Makueni County, 2022) and 108 locations (KNBS, MAKUENI COUNTY, 2020). While the public day secondary schools in Makueni County acted as the units of analysis, the units of observation consisted of 250 principals, 380 Form 4 class teachers (2022), 250 PA chair persons and 108 area chiefs.

3.4 Sampling Techniques and Sample Size

The sampling frame consisted of 250 public day secondary schools and 108 locations in Makueni County. A sample size of 10% to 30% of the target population was appropriate for analysis for descriptive studies (Mugenda & Mugenda, 2013). The researcher stratified the public day secondary schools into 9 sub-counties. Stratification provided more accurate estimates of target population and ensured that the sampled group was a representative of entire population. Random sampling was used to select 20% of the principals, Form 4 class teachers and PA chair persons from schools in each sub-county and 20% of area chiefs from locations in each sub-county. Random sampling helped to avoid bias. Therefore, the sample size consisted of 50 principals, 76 form 4 class teachers (2022), 50 PA chairperson and 21 area chiefs making a total of 197 research participants.

Table 3.1: Sampling Frame

Sub County	Schools	Principals	Form 4 Class Teachers	PA Chairpersons	Locations	Area Chiefs
Kathonzweni	24	24	39	24	11	11
Kibwezi	36	36	58	36	10	10
Kilungu	11	11	19	11	7	7
Makindu	19	19	30	19	4	4
Makueni	37	37	54	37	13	13
Mbooni East	33	33	45	33	17	17
Mbooni West	30	30	46	30	14	14
Mukaa	29	29	42	29	11	11
Nzaui	31	31	47	31	21	21
Total	**250**	**250**	**380**	**250**	**108**	**108**

Source: County Director of Education Office, Makueni County (2022)

Table 3.2 provided the sample size for the study.

Table 3.2: Sample Size (20% of Target Population)

Sub County	Principals	Form 4 Class Teachers	PA Chairpersons	Chiefs
Kathonzweni	5	8	5	2
Kibwezi	7	12	7	2
Kilungu	2	4	2	1
Makindu	4	6	4	1
Makueni	7	11	7	3
Mbooni East	7	9	7	3
Mbooni West	6	9	6	3
Mukaa	6	8	6	2
Nzaui	6	9	6	4
Total	**50**	**76**	**50**	**21**

3.5 Research Instruments

In this study, questionnaires, interview schedules and document analysis schedule were used to collect data. Two sets of questionnaires were used to collect data from the principals and the Form 4 class teachers. The questionnaires consisted of open and closed ended questions to collect both qualitative and quantitative primary data. Questionnaire is the most suitable method of data collection when the respondents are willing to cooperate

(Kurzhals & Kurzhals, 2021). The questionnaires were administered to the principals and form 4 class teachers. This is because questionnaires are relatively cheaper, free from bias of the interviewer and the respondents have adequate time to give well thought out answers to the questions (Fife-Schaw, 2020).

Questionnaires for the principals and Form 4 class teachers covered the five objectives and were aimed at collecting information that helped in testing the hypotheses. The questionnaires had two main sections where section I revealed demographic information while section II contained questions on parents ability to pay user charges, parental involvement in students' learning activities, home-school distance, parental level of education, home environment and students' academic participation in public day secondary schools in Makueni County. This data was used in testing the hypotheses. The PA chairpersons and area chiefs were interviewed as guided by the interview schedules provided in Appendices IV and V. Interview guides are research instruments with only unstructured (open ended) questions mostly administered on a face-to-face basis (Monday, 2020). They offer advantages in that the researcher can elicit more in-depth response. The open ended nature of the questions posed not only defined the topic under investigation but provided opportunities for both the interviewer and interviewee to discuss some topics in more detail. The interview schedules yielded information that was used in complementing the information that was provided by the principals and the Form 4 class teachers.

Document analysis schedule was used in collecting information or data on enrolment, attendance and completion rates in public day secondary schools in Makueni County. The documents considered were the class registers Form 1 2019, Form 2 2020, Form 3 2021 and Form 4 2022. The information collected from these documents was used in complementing the information collected using the questionnaires and interview schedules.

3.5.1 Validity of Research Instruments

Validity is concerned with establishing whether the research instrument is measuring what it is supposed to measure (Cohen, Manion & Morrison, 2017). To enhance validity, the research instruments were appraised by the supervisors and their feedback were included in the questionnaires and interview schedules. The research instruments were also discussed with the experts in the School of Education to ascertain the relevancy and meaningfulness of the content. After discussions, the necessary structural changes were made to improve the research instruments. Qualitative validity was also enhanced by carefully documenting all the procedures used during the interviews, writing down whatever was stated by the interviewees to avoid misrepresentation and also including negative or discrepant information.

3.5.2 Reliability of Research Instruments

Reliability is a measure of the degree to which a research Instrument yields consistent results or data after repeated trial (Okumu, 2020). A pilot study was done to enable the researcher to test the reliability of the research instruments. Pilot study is a feasibility study designed to test various aspects of methods and procedures planned for the larger, more rigorous or confirmatory study (Lowe, 2019). According to Polit and Beck (2017), a pilot study is conducted to avoid fatal flaw in a study that is costly in time and money. In the pilot study, 10% of the sample projected for the larger study was used (Ismail, Kinchin & Edwards, 2018). The pilot study in this case was undertaken in 5 public day secondary schools in Makueni County and involved 5 principals, 8 Form 4 class teachers, 5 PA chair persons and 2 area chiefs making a total of 20 participants.

The reliability of the questionnaires was assessed using Cronbach Alpha coefficients which are widely used in assessing the internal consistency reliability of the five-point Likert scale items. The results obtained from the pilot test were coded into the SPSS version 24 so that the coefficients of reliability for the different constructs in the questionnaire were generated. Coefficients ≥ 0.7 were regarded as adequate and a measure of construct reliability in line with Tavakol and Dennick (2011). The reliability test results for the different questionnaires are outlined in Table 3.3.

From the findings, all the constructs for the six questionnaires were deemed reliable since the Cronbach Alpha coefficients computed were greater than 0.7. Hence, the questionnaires were used in the final study. Qualitative reliability was ensured through the documentation of all procedures and setting up a detailed official protocol used when conducting the interviews. The responses from the interviews were checked for obvious mistakes and communications from meetings were documented. Triangulation was also undertaken to enhance accuracy and reliability of the findings by combining different methods right from the research design to the data analysis techniques. The findings were further compared with the findings of different independent studies which were independently derived.

Table 3.3: Reliability Test Results

	Construct	**No. of Respondents**	**Number of Items**	**Cronbach Alpha**
Principals' questionnaire	Parents' ability to pay user charges/school levies	5	4	0.731
	Parental involvement in students' learning activities	5	4	0.768
	Home-school distance	5	6	0.855
	Parental level of education	5	4	0.740
	Home environment	5	3	0.912
	Students' academic participation in public day secondary schools in Makueni County	5	3	0.903
Form 4 class teachers' questionnaire	Parents' ability to pay user charges/school levies	8	4	0.748
	Parental involvement in students' learning activities	8	4	0.785
	Home-school distance	8	6	0.737
	Parental level of education	8	4	0.789
	Home environment	8	3	0.722
	Students' academic participation in public day secondary schools in Makueni County	8	3	0.823

3.6 Data Collection Procedures

First the researcher obtained letter from the Director Board of Post Graduate Studies SEKU. The researcher used letter of approval to get a permit from National Commission of Science, Technology and Innovation (NACOSTI) to be provided to the relevant authorities highlighting on the study. The researcher also sought permission from the County Commissioner of Makueni County and from the County Director of Education. The researcher administered the questionnaires in person to the principals and forms 4 class teachers of the selected public day secondary Schools in Makueni County. The questionnaires were collected immediately they were filled. Then the researcher requested for Form 1 2019, Form 2 2020, Form 3 2021 and Form 4 2022 class registers to record the information about learners' school attendance. The researcher with the help of the principals and office of the County Commissioner contacted PA chair persons and chiefs and interviewed them respectively.

3.7 Data Analysis and Presentation

Data analysis is the process of organizing the collected data and putting it together so that the researcher can meaningfully, categorize and synthesize information from the data collecting tools (Taherdoost, 2021). The quantitative data was analyzed using descriptive and inferential statistics with the help of SPSS version 24. Frequencies and percentages were used to summarize the respondents' characteristics while for the main study variables, the mean and standard deviation were computed. Inferential analysis on the other hand comprised of both correlation and regression analysis. The Pearson correlation coefficients (r) were used to find out the correlation between the independent variables and the dependent variable.

Once it was established that the variables were significantly correlated based on the computed significance values, both bivariate and multiple regression analyses were conducted with the aim of determining the individualized and joint influence of the independent variables on students' participation in public day secondary schools in Makueni County. In this case, the regression estimates specifically beta coefficients and corresponding significance or probability (p) values were assessed where the critical p

value was set at 0.05. A calculated *p* value that was less than 0.05 was an indicator that the influence of a particular independent variable on the dependent variable was significant, otherwise insignificant. These bivariate regression estimates were used in hypothesis testing. The following equations represent the bivariate and multiple linear regression models that were fitted to show the individualized and joint relationship between family-based determinants and students' academic participation in public day secondary schools in Makueni County: -

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$

$Y_1 = \beta_0 + \beta_1 X_1 + e$

$Y_2 = \beta_0 + \beta_2 X_2 + e$

$Y_3 = \beta_0 + \beta_3 X_3 + e$

$Y_4 = \beta_0 + \beta_4 X_4 + e$

$Y_5 = \beta_0 + \beta_5 X_5 + e$

Where:

Y = Students' academic participation in public day secondary schools in Makueni County;

Y_1, Y_2, Y_3, Y_4 and Y_5= dependent variables which are measures of students' academic participation in public day secondary schools in Makueni County for each construct of family-based determinants;

X_1 = Parents' ability to pay user charges

X_2= Parental involvement in students learning activities

X_3= Home-school distance

X_4= Parental level of education

X_5= Home environment

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ = Beta coefficients,

β_0= Constant Term,

ε= Error term

In testing the research hypotheses, the beta coefficients, t-statistics and their associated significance (p) values were examined after conducting the bivariate regression analyses

where the individualized effect of each independent variable on the dependent variable was conducted. Multiple regression analysis was conducted to show the joint influence of the independent variables on the dependent variable. ANOVA analysis was done to show the relationship that existed between dependent variable and independent variable was significant. All inferences in this study were made at the 0.05 significance level.

The quantitative findings were presented using frequency tables and graphs. The qualitative data was thematically analyzed where the researcher closely examined the data to identify common themes, topics, ideas and patterns of meaning that came up repeatedly and presented them inform of narrative and appropriate verbatim quotes.

3.8 Ethical Considerations

Informed consent; the researcher sought informed permission of the respondents before including them in the study. The researcher ensured that the people who participated in the study understood the purpose, objectives of the research and freely took part in the research. Anonymity and confidentiality; the identity of the research participants was not captured. The names were not included in the research and the research data was treated anonymously. The researcher ensured that any personal information the participants disclosed could not be connected to them in any way.

Voluntary participation; No participant was forced or coerced to provide information. Research instruments were administered through voluntary informed consent and researchers' personal bias and opinions did not get in the research. Professional conduct; the researcher maintained courteous and professional relationship with the participants in the study. The researcher ensured that communication with people outside the school were appropriately worded and had formal style. Accurate reporting; the researcher presented raw data unchanged and without bias and also the research findings during generalization. Source of data was correctly identified by referencing and citation where appropriate.

CHAPTER FOUR

4.0 RESULTS

4.1 Introduction

This chapter contains the research results that emanated from the descriptive, inferential, content and document analysis that was conducted. The results are organized in such a way that results for a particular objective is presented in one section.

4.2 Response Rate

One of the crucial factors that determine the quality of a research study is the response rate attained. According to Booker, Austin and Balasubramanian (2021), high response rates usually enhance the validity, reliability and generalizability of research results or findings. For that reason, this study sought to determine the successful response rate for all the study respondents namely school principals, Form 4 class teachers, PA chairpersons and area chiefs. The response rates obtained are outlined in Table 4.1.

Table 4.1: Response Rate

Research Instrument	Category of Respondent	Category	Frequency	Percent
Questionnaire	Principals	Returned	50	100.0
		Total	**50**	**100.0**
	Form 4 class teachers	Returned	72	94.7
		Unreturned	4	5.3
		Total	**76**	**100.0**
Interview schedule	PA chair persons	Successful	50	100.0
		Total	**50**	**100.0**
	Area chiefs	Successful	20	95.2
		Unsuccessful	1	4.8
		Total	**21**	**100.0**

Based on the results presented in Table 4.1, it was inferred that the response rates for all the categories of respondents in this study were very adequate as they were above 94.0% and therefore, data analysis and reporting were justified. Several researchers among them Saunders and Townsend (2016) have argued that while a response rate of 50.0% was in

general considered acceptable, response rates that were 60.0% and above were highly desirable.

4.3 Demographic Information of Respondents

It is recommended that when carrying out any research study, researcher should understand the demographic profile of the respondents so as to give responses a context. Among the demographic characteristics explored is the gender, academic/professional qualifications, category of school and period of service in the positions held by the respondents.

4.3.1 Gender of Respondents

The gender of the school principals, Form 4 class teachers, PA chair persons and area chiefs who participated in the study was determined. Assessing the distribution of the respondents by gender was informed by the need to provide a glimpse of the number of men and women who held leadership and management roles in the sampled schools and locations.

Table 4.2: Distribution of Respondents by Gender

Category of Respondent	Gender	Frequency	Percent
	Male	33	66.0
	Female	17	34.0
Principals	**Total**	**50**	**100.0**
	Male	37	51.4
	Female	35	48.6
Form 4 class teachers	**Total**	**72**	**100.0**
	Male	43	86.0
	Female	7	14.0
PA chair persons	**Total**	**50**	**100.0**
	Male	16	70.0
	Female	4	30.0
Area chiefs	**Total**	**20**	**100.0**

The results presented in Table 4.2 revealed that majority (66.6%) of the principals were male while 34.0% were female. It was also noted that 51.4% of the Form 4 class teachers,

the majority, were male while 48.6% were female. Majority of the PA chairpersons, 86.6%, were male while the rest, 14.0% were female. The results also show that majority of the area chiefs (70.0%) were male while 30.0% were female. The above findings demonstrated that there were significant gender disparity in the leadership and management of public day secondary schools in Makueni County as the positions of principal, PA chairperson and Form 4 class teachers were dominated by men.

4.3.2 Academic Qualifications of Respondents

The study also determined the academic/professional qualifications of the sampled principals and Form 4 class teachers. This was deemed crucial as it was understood that with higher academic qualifications, a teacher was better positioned to take up management roles and also able to devise various strategies for enhancing students' participation in learning activities, for instance, through guidance and discipline.

Table 4.3: Distribution of Respondents by their Academic/Professional Qualifications

Category of Respondent	Academic Qualification	Frequency	Percent
	Diploma	1	2.0
	Degree	40	80.0
	Masters	9	18.0
Principals	**Total**	**50**	**100.0**
	Diploma	4	5.6
	Degree	65	90.3
	Masters	3	4.2
Form 4 class teachers	**Total**	**72**	**100.0**

The study based on the results displayed in Table 4.3 established that majority of the sampled principals (80.0%) had obtained bachelor's degree, 18.0% had a masters degree while 2.0% held diploma certificates. The findings also revealed that majority of the Form 4 class teachers (90.3%) had a bachelor's degree, 4.2% had attained a masters degree while 5.6% had diploma certificates. These findings were an indication that the positions of principals and Form 4 class teachers in the sampled public day secondary schools in Makueni County were held by bachelor's degree holders or teachers with

requisite academic qualifications needed in effectively and efficiently discharging their duties. Hence, they were in a position to positively enhance students' academic participation in learning activities based on their professional qualifications.

4.3.3 Period of Service in the Positions Held by Respondents

The period for which the respondents had served in the respective positions held was also assessed. This was done so as to gauge whether the respondents had the necessary experience needed in articulating the issues explored in this study. The findings are presented in Table 4.4.

Table 4.4: Distribution of Respondents by their Period of Service in the Positions Held

Position	Period of Service	Frequency	Percent
	Less than 3 years	9	18.0
	4-6 years	10	20.0
	7-9 years	11	22.0
	Over 10 years	20	40.0
Principals	**Total**	**50**	**100.0**
	1 year	8	16.0
	2 years	19	38.0
	3 years	14	28.0
	4 years	9	18.0
PA Chairperson	**Total**	**50**	**100.0**

The study findings as outlined in Table 4.4 revealed that 18.0% of the sampled principals had served in this position for less than 3 years, 20.0% had been principals for 4-6 years while 22.0% and 40.0% of the principals had served in this position for 7-9years and over 10 years respectively. Focusing on the PA chairpersons, 16% had served in the position for a year, 38.0% for 2 years while 28.0% and 18.0% had held the position for 3years and 4 years respectively. Thus, it can be concluded that these categories of respondents had gained the necessary experience that enabled them to respond to the research questions asked regarding how family-based issues affected the participation of students in learning activities within public day secondary schools.

4.3.4 Period of Working in the School among Principals and Form 4 Class Teachers

The results displayed in Table 4.5 pertains to the number of years the sampled principals and Form 4 class teachers had worked in their respective schools. Seeking this information was necessary since it helped reveal the principals' and Form 4 class teachers' capacity to respond to questions asked with regards to the influence of family-based factors on students' participation in learning activities in their respective schools.

Table 4.5: Distribution of Principals and Form 4 Class Teachers by Period of Stay in Schools

Category of Respondent	Period Working at the School	Frequency	Percent
	Less than 3 years	14	28.0
	4-6 years	22	44.0
	7-9 years	10	20.0
	Over 10 years	4	8.0
Principals	**Total**	**50**	**100.0**
	Less than 3 years	17	23.6
	4-6 years	39	54.2
	7-9 years	6	8.3
	Over 10 years	10	13.9
Form 4 class teachers	**Total**	**72**	**100.0**

From Table 4.5, it can be seen that 28.0% of the sampled principals had worked in their respective schools for less than 3 years, 44.0% for 4-6 years while 20.0% and 8.0% of these principals had served in these schools for 7-9years and over 10years respectively. It was also established that 23.6% of the Form 4 class teachers had stayed in their current schools for less than 3 years, 54.2%, the majority for 4-6years while 8.3% and 13.9% of these teachers had been in their respective schools for 7-9years and over 10years respectively. Therefore, it was inferred that the sampled principals and Form 4 class teachers had been in their respective schools for a reasonable period of time which enhanced their capacity to highlight the particular influence that family-based factors had on students' participation in learning activities in their respective schools based on their experiences within the schools.

4.3.5 Category of School

The study further examined the category of schools from which the sampled principals and Form 4 class teachers were drawn from. The findings are presented in Figure 4.1. According to these findings, the majority of the principals (66.0%) and Form 4 class teachers (76.4%) were day/boarding public schools. The rest of the principals (34.0%) and Form 4 class teachers (23.6%) were based in purely day public schools.

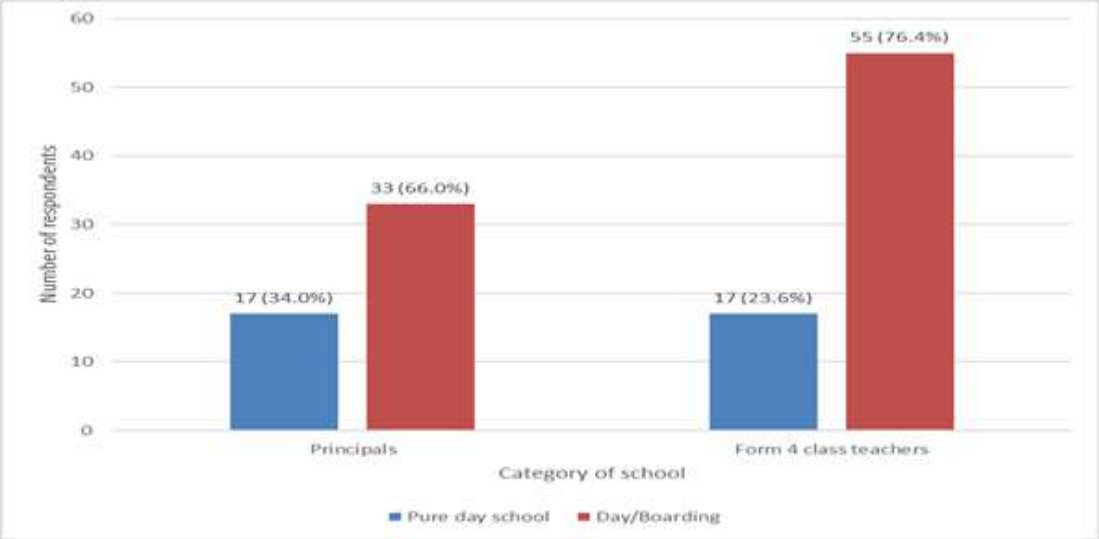


Figure 4.1: Distribution of Respondents by Category of School

4.4 Parents' Ability to Pay User Charges and Students' Academic Participation in Public Day Secondary Schools in Makueni County

The first objective of the study was to determine the influence of parents' ability to pay user charges on students' academic participation in public day secondary schools in Makueni County. In a bid to achieve this objective, parents' ability to pay user charges/school levies in the sampled schools was first assessed based on the responses of the principals, Form 4 class teachers, PA chairpersons and area chiefs.

4.4.1 User Charges Levies Paid by Parents

The study assessed the kind of user charges which parents in public day secondary schools in Makueni County paid for their children to remain in school. The views of the PA chairpersons were considered. Their responses are outlined in Table 4.6.

Table 4.6: User Charges Paid by Parents

User Charges/School Levy	Frequency	Percent
Lunch fee	50	100.0
Remedial fee	30	60.0
Uniform fee	22	44.0
Development fee	18	36.0
PTA dues	7	14.0
Prize giving fee	2	4.0
Identity card fee	2	4.0
Teacher motivation	1	2.0

The results presented in Table 4.6 showed that all the PA chairpersons reported that lunch fees were charged in the said schools. Remedial fee, uniform fee and development fee were mentioned by 60.0%, 44.0% and 36.0% of the PA chairpersons. Other school levies highlighted by a number of the PA chairpersons were PTA dues (14.0%), prize giving fee (4.0%), identity card fees (4.0%) and teacher motivation charges (2.0%).

4.4.2 Approximate Annual User Charges in the Sampled Schools

The study determined the approximate user charges/school levies that the sampled schools charged annually. The particular charges/levies considered were school uniform fee, lunch fee, development fee, remedial fee and any other charges. Seeking such information was seen necessary as it aided in evaluating the parents' ability to pay. The results based on the principals' responses are as presented in Table 4.7.

Table 4.7: Approximate Annual User Charges in the Sampled Schools

User Charges	N	Range	Min	Max	Mean	SD
School uniform fee	23	10800	1200	12000	5930.43	2845.50
Lunch fee	50	15000	1500	16500	9657.80	4619.28
Development fee	13	9000	1000	10000	3692.31	2496.15
Remedial fee	27	3500	1000	4500	2555.56	1288.51

The findings given in Table 4.7 showed that in the 23 schools that charged school uniform fee, the fee ranged from KShs. 1200 to 12000 where the average was KShs. 5930.43 with a standard deviation of 2845.50. Regarding the lunch fee, the study noted

that the minimum fee charged in the 50 sampled schools was KShs. 1500 while the maximum was KShs. 16500. The average lunch fees charged among these schools was KShs. 9657.8 with a standard deviation of 4619.283. The range of development fees charged in 13 out of the 50 sampled schools was KShs. 9000 where the average was KShs. 3692.31 with a standard deviation of KShs. 2496.15. For remedial fees, the minimum and maximum fee charged in the 27 schools with such levies was KShs. 1000 and KShs. 4500 respectively. The average remedial fee charged among these schools was KShs. 2555.56 while the standard deviation was KShs. 1288.51. In 2 of the sampled schools, KShs. 1000 prize giving levy was charged, in other two (2) schools, KShs. 200 and KShs.250 was charged to cater for identity cards and NEMIS.

4.4.3 Parents' Ability to Pay User Charges on Time

The principals and the Form 4 class teachers also reacted to various statements regarding parents' ability to pay user charges or school levies by indicating the extent they agreed or disagreed with the statements based on a five-point Likert scale. The mean of responses for the different statements (items) and also the composite mean for the construct were interpreted using a scale interval where a mean value of (1.000-1.499) indicated strongly disagree, (1.500-2.499) indicated disagree, (2.500-3.499) indicated neutral, (3.500-4.499) indicated agree while (4.500-5.000) was an indication of strongly agree. This interpretation was applied for all the constructs in this study. The separate responses of the principals are presented in Table 4.8.

Table 4.8: Principals' Responses on Parents' Ability to Pay User Charges and their Influence on Students' academic participation

Statement	Valid N	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
Most parents pay school uniform fee in time in this school	23	4.30%	34.80%	8.70%	43.50%	8.70%	3.174	1.154
Most parents pay development fee in time in this school	13	7.70%	69.20%	15.40%	0.00%	7.70%	2.308	0.947
Most parents pay lunch contribution fee in time in this school	50	24.00%	44.00%	16.00%	14.00%	2.00%	2.260	1.046
Most parents pay remedial fee in time in this school	27	33.30%	40.70%	14.80%	11.10%	0.00%	2.037	0.980
Composite Mean and Standard Deviation Valid N=50							**2.255**	**1.018**

From the results given in Table 4.8, it was evident that the principals on average held a neutral view regarding whether most parents in their school paid school uniform fees in time as depicted by a mean value of 3.174. On the other hand, the principals on average disagreed that most parents in their school paid development, lunch and remedial fees in time as supported by the mean values equal to 2.308, 2.260 and 2.037 respectively. The composite mean value of 2.255 for the construct meant that on average, the principals disagreed with most of the statements presented on parents' ability to pay user charges/school levies. Table 4.9 shows the Form 4 class teachers' reaction to the four (4) items on the parents' ability to pay user charges/school levies construct.

Table 4.9: Form 4 Class Teachers' Responses on Parents' Ability to Pay User Charges and Their Influence on Students' academic participation

	Valid N	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
Most parents pay school uniform fee in time in this school	67	20.90%	38.80%	17.90%	19.40%	3.00%	2.448	1.118
Most parents pay lunch contribution fee in time in this school	72	16.70%	55.60%	12.50%	13.90%	1.40%	2.278	0.953
Most parents pay remedial fee in time in this school	71	35.20%	42.30%	11.30%	8.50%	2.80%	2.014	1.035
Most parents pay development fee in time in this school	69	34.80%	52.20%	8.70%	4.30%	0.00%	1.826	0.766
Composite Mean and Standard Deviation Valid N=72							**2.138**	**0.756**

The study, based on the findings outlined in Table 4.9, found that the Form 4 class teachers disagreed that most parents in their schools, paid school uniform fee, lunch contribution fee, remedial fee and development fee in time as demonstrated by the means of responses of 2.448, 2.278, 2.014 and 1.826 respectively. The composite mean value of 2.138 was an indication that the sampled Form 4 class teachers were on average, in disagreement with the statements presented on parents' ability to pay user charges/school levies. The views of the principals and Form 4 class teachers were reiterated by the area chiefs who unanimously observed that students in the public day secondary schools in their areas were frequently sent home to collect school fees. Some of the responses of the area chiefs were as follows: -

> "Yes, students are seen going home almost every month to collect fees" Area Chief 2 … "Yes, especially small schools" Area Chief 3 … "Yes, it has been a tradition for schools in this area to send students home" Area Chief 5 … "Yes, in this area, parents have to be reminded to pay fees" Area Chief 13 … "Yes, the day schools in this area have children from low economic background. Hence, the parents do not pay school fees in time" Area Chief Area Chief 14

Regarding the frequency of sending students home to collect school fees per term, one of area chiefs indicated that this was done once, 7 (35.0%) reported twice per term while the rest, 12 (60.0%) in number, argued that students were sent home to collect school fees in the said schools more than twice per term. Some of the area chiefs explained that: -

> "Almost every month, in this area parents are not committed to paying school fees" Area Chief 8 …. "Almost every end of the month" Area Chief 10 …. "I think more than twice a term. It is also my concern because some day schools are sending them home even on a weekly basis" Area Chief 17

According to the majority of the area chiefs, 15 (75.0%) in number, low incomes or poverty was the main reason as to why students were sent home to collect school fees as the parents experienced difficulties in paying the required school fees on time. Two of the chiefs highlighted that: -

> "Parents are willing to pay but most of them have no or very little income" Area Chief 1 …. "Most parent are poor and hence, find it hard to pay in time" Area Chief 12

The rest of the area chiefs argued that some students were send home to collect school fees due to parents' laxity or ignorance to pay school fees on time, only doing so when the students were sent home.

4.4.4 Perceived Link between Parents' Ability to Pay User Charges and Students' Academic Participation

The views of the different categories of respondents regarding the implications of parents' ability to pay user charges/school levies on students' academic participation in

public day secondary schools in Makueni County were further sought. The principals' and form 4 class teachers' views regarding the extent parents' ability to pay influenced students' academic participation in terms of enrolment, regular school attendance and completion of studies are presented in Figure 4.2.

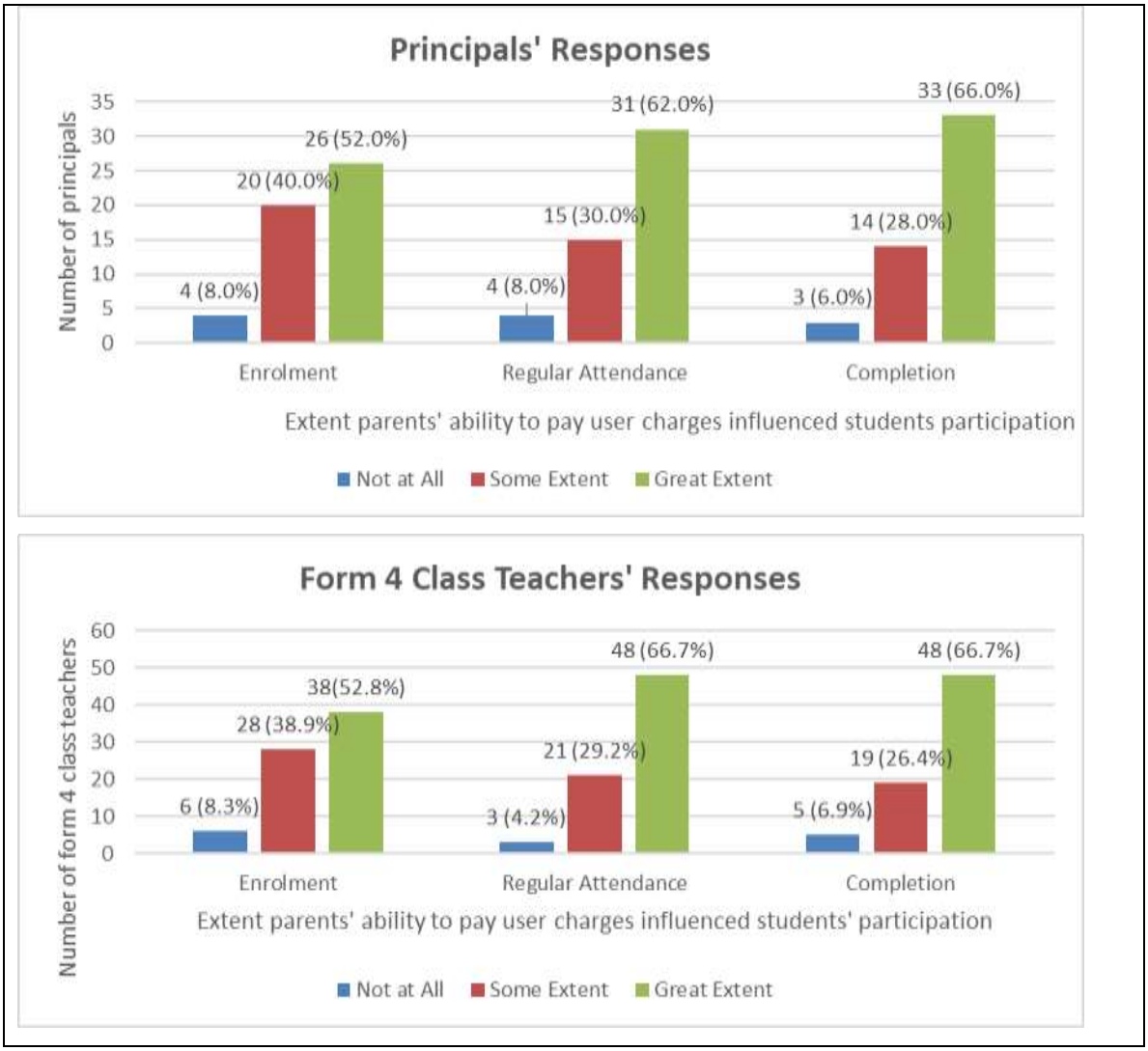


Figure 4.2: Parents' Ability to Pay User Charges and Enrolment, Regular School Attendance and Completion of Studies

The study findings displayed in Figure 4.2 demonstrated that 8.0% of the principals argued that parents' ability to pay user charges/school levies did not at all influence students' enrolment in the surveyed schools, 40.0% said it influenced to some extent while the majority (52.0%) asserted that parents' ability to pay user charges/school levies

did influence students' enrolment in these schools to a great extent. Looking at the Form 4 class teachers' responses, 8.3% pointed out that parents' ability to pay user charges/school levies had no influence on students' enrolment in their school, 38.9% stated that it did influence to some extent while the majority of these teachers (52.8%) observed that students' enrolment in the targeted schools was influenced by parents' ability to pay user charges/school levies to a great extent.

Regarding regular school attendance, 8.0% of the principals were of the view that parents' ability to pay user charges/school levies did not have any influence, 30.0% noted that there was some influence while 62.0% of these principals, the majority, reported great influence. The study results also show that 4.2% of the Form 4 class teachers underlined that regular school attendance was not at all influenced by parents' ability to pay user charges/school levies, 29.2% reported that it did influence to some extent while 66.7% of the teachers, the majority, found that parents' ability to pay user charges/school levies greatly influenced students' regular school attendance.

According to 6.0% of the principals, parents' ability to pay user charges/school levies did not at all influence students' completion rates, 28.0% asserted that there was some influence while majority (66.0%) noted that the influence was great. From the Form 4 class teachers' perspective, 6.9% believed that parents' ability to pay user charges/school levies did not influence students' completion rates, 26.4% indicated it influenced to some extent while 66.7% of the teachers who were also the majority, argued that parents' ability to pay user charges/school levies to a great extent influenced students' completion rates in the public day secondary schools in Makueni County. The responses of the principals and Form 4 class teachers on whether dropout cases due to fees problems had been reported in the sampled public day secondary schools in Makueni County are provided in Figure 4.3.

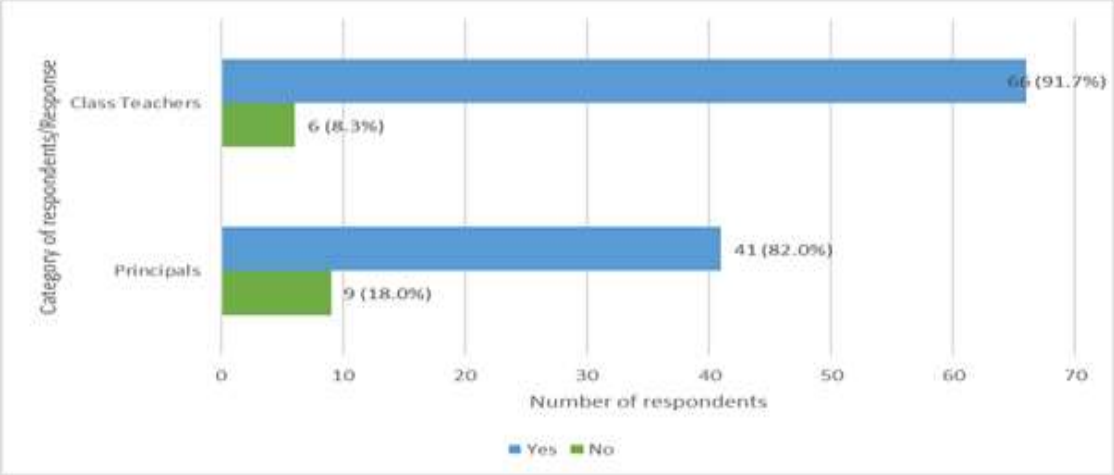


Figure 4.3: Reported Dropouts Cases Due to Fees Problems

The findings displayed in Figure 4.2 showed that the majority of the principals (82.0%) indicated that dropout cases due to fees problems had occurred in their schools while 8.3% asserted that there were no such cases in their schools. It was also found that majority of the Form 4 class teachers (91.7%) underscored that there were dropout cases in their schools as a result of fee problems while 8.3% stated that their schools did not record such cases. From the responses of the interviewed PA chairpersons, the majority of them (74.0%) reiterated that students' participation in public day secondary schools in Makueni County particularly school attendance and completion was to a great extent affected by parents' ability to pay such user charges. Their arguments revealed that most students were forced to miss school or classes after being send home to collect school fees while others accumulated huge fee balances which caused them to drop out of school. The failure to pay school fees on time according to the PA chairpersons was attributed majorly to lack of adequate incomes and in some cases, parents' ignorance. Some of the PA chairpersons' responses were recoded as follows: -

> "To high extent, the principals are forced to send some students home to collect schools' fees thus causing them to miss classes" PA Chairperson 13 … "To a very great extent, some students are sent home for fees until they drop out of school" PA Chairperson 9 … "Very much, most parents face economic challenges in keeping their children in school" PA Chairperson 41 … "To a great extent, some students are sent home to collect fees, others drop out" PA Chairperson 6 …. "To

a great extent, sometimes the teachers introduce meal cards so that only those that have paid take meal" PA Chairperson 2 …. "To a high extent, most parents are not working or have very low income, no food at home and hence, payment of school fees is a problem to them" PA Chairperson 26 … "To a very high extent, parents pay with difficulties especially remedial fee" PA Chairperson 29

Majority of the area chiefs (75.0%) were of the view that school lunch contributions and development fees to a great extent influenced students' participation in public day secondary schools. The larger proportion of these chiefs, 9 (45.0%) stated that uniform fees influenced students' participation only to some extent. The area chiefs unanimously asserted that there were some learners in their communities who left or dropped out of school before completing Form 4 due to lack of school fees.

4.4.5 Correlation Analysis

As part of the inferential analysis in this study, correlation analysis was conducted to determine if there was correlation between parents' ability to pay user charges/school levies and students' academic participation in public day secondary schools in Makueni County. Pearson correlation analysis was applied in this case where the direction, strength and significance of the correlation were examined. With regards to the significance of the correlation between the independent variable and the dependent variable, significance or probability value (*p* value) were evaluated where a *p* value less than 0.05 indicated that the correlation was significant, otherwise, insignificant. This rule of thumb was applied across the study. The results obtained are provided in Table 4.10.

Table 4.10: Correlation between Parents' Ability to Pay User Charges and Students' Academic Participation

		Students' Academic Participation	Parents' Ability to Pay User Charges/School Levies
Students' Academic Participation	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	122	
Parents' Ability to Pay User Charges/School Levies	Pearson Correlation	.724**	1
	Sig. (2-tailed)	.000	
	N	122	122

** Correlation is significant at the 0.01 level (2-tailed).

The correlation test results presented in Table 4.10 showed that the correlation between parents' ability to pay user charges/school levies and students' academic participation in public day secondary schools in Makueni County was positive, strong and significant as illustrated by (r=0.724, p=.000, p< .05).

4.4.6 Regression Analysis and Hypothesis Testing

Having determined that parents' ability to pay user charges/school levies was significantly correlated with students' academic participation in public day secondary schools in Makueni County, bivariate linear regression analysis was conducted to determine the isolated influence of this independent variables on the dependent variable. The bivariate regression analysis results particularly the regression estimates (β coefficient and associated p value) were used in testing the formulated research hypothesis. The combined responses of the principals and Form 4 class teachers were considered in this case and all the inferences were made at the 0.05 level of significance. This criterion was applied across the study.

The following null hypothesis was tested: -

Ho1: There is no statistically significant influence between parents' ability to pay user charges and students' academic participation in public day secondary schools in Makueni County.

Following the bivariate analysis that was conducted, three outputs highlighted in Table 4.11 were generated.

Table 4.11: Parents' Ability to Pay User Charges and Students' Academic Participation

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.724a	0.524	0.520	0.590846

a Predictors: (Constant), Parents' ability to pay user charges/school levies

ANOVAa

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	46.12	1	46.12	132.11	.000b
	Residual	41.892	120	0.349		
	Total	88.012	121			

a Dependent Variable: Students' academic participation in public day secondary Schools in Makueni County

b Predictors: (Constant), Parents' ability to pay user charges/school levies

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.572	0.156		10.087	0.000
	Parents' ability to pay user charges/school levies	0.616	0.054	0.724	11.494	0.000

a Dependent Variable: Students' academic participation in public day secondary schools in Makueni County

4.4.6.1 Model Summary

The model summary results contained in the first output in Table 4.11 revealed that a R Square or coefficient of determination of 0.524 was obtained. This meant that 52.4% of the variance in students' academic participation in the public day secondary schools in Makueni County was attributed to changes in parents' ability to pay user charges/school levies. The rest of variance in students' academic participation in these schools, 47.6%, was thus attributed to other factors that were not included in this regression model.

4.4.6.2 Significance of the Model

The ANOVA results in the second output in Table 4.11 were used in assessing whether the model fitted to show the relationship that existed between parents' ability to pay user charges/school levies and students' academic participation in the public day secondary schools in Makueni County was significant. The main intention was to determine if the model used fit the data utilize or in other words, how well the model would predict a future set of observations. For that reason, the F statistic obtained and the corresponding significance (*p*) value were examined where a calculated *p* value less than 0.05 indicated that the model was significant and vice versa. According to the results, F (1, 120) = 132.11 and p=0.000. These results demonstrated that the model used in showing the relationship between parents' ability to pay user charges/school levies and students' participation in the public day secondary schools in Makueni County was significant since $p<0.05$. Therefore, using this regression model, it was possible to predict the level of students' participation in the said schools when the values of parents' ability to pay user charges/school levies are provided.

4.4.6.3 Regression Estimates

The final output in Table 4.11 contains the computed regression estimates key among them the beta coefficient and the associated *p* value. The beta coefficient was used to quantify the influence that parents' ability to pay user charges/school levies had on students' academic participation in the public day secondary schools in Makueni County. The *p* value on the other hand, was used to assess whether influence was significant or not. As shown, β = 0.616 and p = .000. These values meant that parents' ability to pay

user charges/school levies positively and significantly influenced students' academic participation in these schools since $p<0.05$. When holding all other factors constant, one unit increase in parents' ability to pay user charges/school levies would result to increased students' academic participation in the public day secondary schools in Makueni County by 0.616 units. Since the *p* value obtained was less than 0.05, the null hypothesis that parents' ability to pay user charges has no statistically significant influence on students' academic participation in public day secondary schools in Makueni County was rejected. Therefore, it was inferred that in deed, parents' ability to pay user charges/school levies has statistically significant influence students' academic participation in public day secondary schools in Makueni County. Based on the regression estimates generated, the following optimal model was fitted;

$$\mathbf{Y= 1.572 + 0.616\ X_1}$$

Where **Y**= Students' academic participation in public day secondary schools in Makueni County and $\mathbf{X_1}$ is Parents' ability to pay user charges/school levies.

4.5 Parental Involvement in Students' Learning Activities and Students' Academic Participation in Public Day Secondary Schools in Makueni County

The second objective of this study was to establish the influence of parental involvement in students learning activities on students' academic participation in public day secondary schools in Makueni County. Towards achieving this objective, the level of parental involvement in students' learning activities in the sampled was first determined by relying on the views of the sampled principals, Form 4 class teachers, PA chairpersons and area chiefs.

4.5.1 Teachers' Frequency of Meeting Parents to Discuss Issues on Students' Learning Activities

The principals and Form 4 class teachers were asked to indicate how often they met with parents to discuss school matters concerning the learning activities of students. Their responses are provided in Figure 4.4.

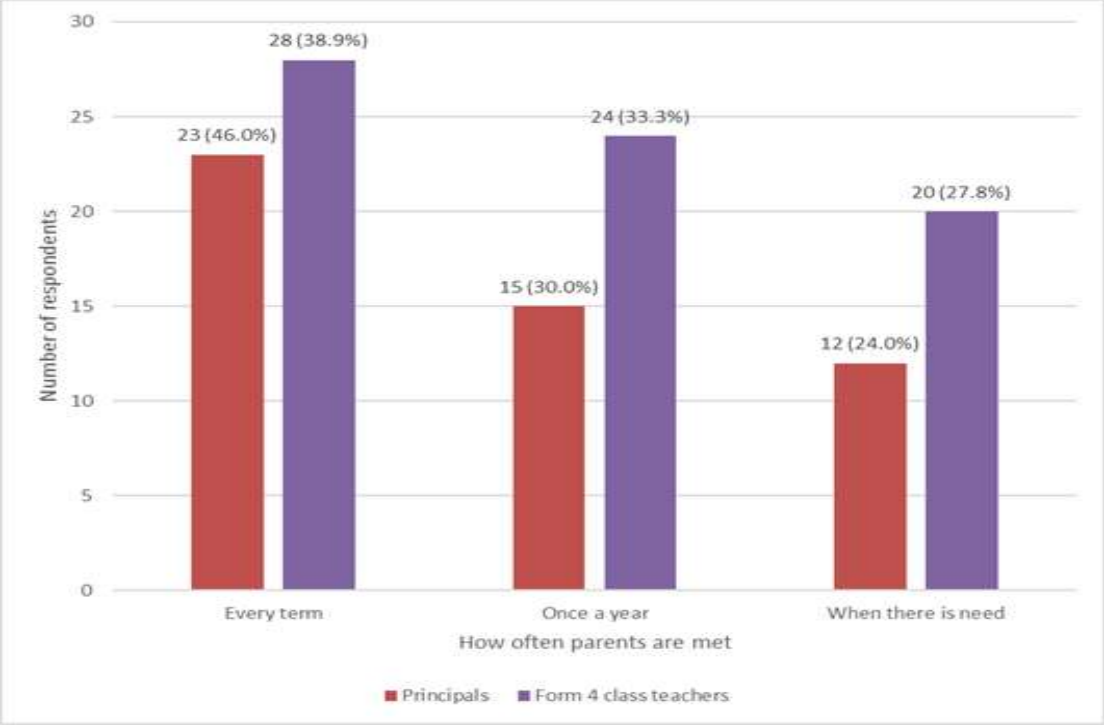


Figure 4.4: How Often Teachers Meet Parents to Discuss Students' Learning Activities

The findings presented in Figure 4.4 showed that 46.0% of the principals indicated that they met with parents every term to discuss school matters concerning students' learning activities, 30.0% met parents once a year while 24.0% of the principals stated that they met parents whenever a need rose. From the Form 4 class teachers' responses, 38.9% noted that the parents were met every term, 33.3% stated once a year while 27.8% reported that the parents were met whenever there was a need.

From the interviews with the PA chairpersons, 40.0% of them stated that PA meetings in their schools were held every term, 28.0% asserted that such meetings were held once in a year while the rest, 32.0%, reported that these meetings were organized when a need arose. Regarding academic clinics, majority of the PA chairpersons, 52.0%, indicated that the clinics were held when there was need while 18.0% and 34.0% of the chairpersons observed that academic clinics were held every term and once in a year respectively. The majority of the PA chairpersons, 82.0%, argued that parents in their schools did not make

consultations with teachers about their children's progress. The arguments posed by some of the PA chairpersons were as follows: -

> "No, parents usually come to school when called by school administration" PA Chairperson 4 … "Not at all. Parents have left everything to teachers" PA Chairperson 21… "Not at all; once parents enroll their children, they sit to wait for results" PA Chairperson 26 … "No; most parents are not concerned about their children's education" PA Chairperson 28 … "Not at all; They only remember school when called by school administration or child is send home" PA Chairperson 36 … "Not at all. Even when students are sent home for fees, they do not come" PA Chairperson 49

The PA chairpersons who noted that parents in their schools rarely consulted teachers regarding their children's progress argued that parents made the consultations only during Academic or Parents' Day. The very few parents who consulted about their children's progress as highlighted by PA chairpersons 10, 17, 19 and 34 had class teachers' contacts through which they made calls and enquired about children's progress and general welfare.

4.5.2 Percentage of Parents' Who Attend School Meetings

The study also assessed the average percentage of parents who attended school meetings organized to discuss students' learning activities. This was one of the ways of assessing the level of parental involvement in students' learning activities. The principals' views are given in Table 4.12.

Table 4.12: Principals' Responses on the Average Percentage of Parents Who Attend School Meetings

School Meetings	N	Min	Max	Mean	Std. Deviation
PTA meeting	50	30	100	71.6	18.233
Academic clinics	50	25	99	69.9	18.903
Consultations with teachers	50	2	100	46.1	30.091
Valid N (listwise)	50				

The results outlined in Table 4.12 showed that on average, 71.6%, 69.9% and 46.1% of parents attended PTA meetings, academic clinics and consultations with teachers in the sampled public day secondary schools in Makueni County respectively. Table 4.13 contains results pertaining to Form 4 class teachers' responses on the average percentage of parents who attended school meetings organized to discuss students' learning activities.

Table 4.13: Form 4 Class Teachers' Responses on the Average Percentage of Parents Who Attend School Meetings

School Meetings	N	Min	Max	Mean	Std. Deviation
PTA meeting	72	25	100	69.7	18.312
Academic clinics	72	20	99	67.2	18.153
Consultations with teachers	72	2	95	37.0	23.487
Valid N (listwise)	72				

It was established, as shown in Table 4.13, that on average, the sampled Form 4 class teachers reported that 69.7%, 67.2% and 37.0% of parents attended PTA meetings, academic clinics and consultations with teachers regarding students' learning activities in their schools respectively.

Majority of the interviewed PA chairpersons, 76.0%, observed that parents in their schools responded well to PA meetings where many reported attendance rates of more than 70%. The few who reported poor attendance decried that about 30%, 40% or less than 50% of the parents attended such meetings when called upon. In reference to the latter findings, one of the PA chairpersons argued that some parents never stepped in school after their children reported to Form 1. With regards to academic clinics, 60.0% of the interviewed PA chairpersons observed that parents' attendance was good (mostly over 60%) while the rest held a contrary opinion. Furthermore, the majority of the interviewed PA chairpersons, 82.0%, noted that parents in their schools did not make deliberate efforts to consult with teachers regarding their children's progress unless when called by the school administration. Some of the chiefs argued that: -

"Most of them do not participate; they ignore what is going on in school." Area Chief 2 … "No, most of them are very ignorant about their children's learning activities" Area Chief 4 … "Very minimal consultations, parents have left everything about schools to teachers" Area Chief 1… "To a very small extend. They have to be forced, majority of them" Area Chief 15

4.5.3 Measures of Parental Involvement in Students' Learning Activities

The principals and Form 4 class teachers further reacted to four items in the parental involvement in students' learning activities construct by stating the extent they agreed or disagreed with the statements based on a five-point Likert scale. The principals' responses are provided in Table 4.14.

Table 4.14: Principals' Responses on Measures of Parental Involvement in Students' Learning Activities

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
Most parents attend academic clinics	4.00%	14.00%	8.00%	64.00%	10.00%	3.620	0.987
Most parents attend PTA meetings	10.00%	16.00%	10.00%	54.00%	10.00%	3.380	1.176
Most parents consult teachers on matters concerning their children's education	8.00%	34.00%	16.00%	36.00%	6.00%	2.980	1.134
Some parents visit school frequently to know about the progress of their children in learning activities	14.00%	32.00%	14.00%	40.00%	0.00%	2.800	1.125
Composite Mean and Standard Deviation						**3.195**	**0.840**
Valid N=50							

The findings outlined in Table 4.14 revealed that on average, the principals agreed that most parents in their schools attended academic clinics as demonstrated by the mean of

responses of 3.620. On the other hand, the principals on average held a neutral view regarding whether most parents attended PTA meetings and also consulted teachers on matters concerning their children's education as illustrated by the means of responses of 3.380 and 2.980 respectively. On average, the principals as well held a neutral view regarding whether some parents visited school frequently to know about the progress of their children in learning activities given the mean of responses of 2.800. The overall mean of 3.195 meant that on average, the principals held a neutral view regarding the statements presented on parental involvement in students' learning activities. The Form 4 class teachers' reaction to the four (items) in the parental involvement in students' learning activities construct is depicted by the findings presented in Table 4.15.

Table 4.15: Form 4 Class Teachers' Responses on Measures of Parental Involvement in Students' Learning Activities

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
Most parents attend academic clinics	2.80%	13.90%	6.90%	69.40%	6.90%	3.639	0.909
Most parents attend PTA meetings	4.20%	20.80%	11.10%	55.60%	8.30%	3.431	1.046
Most parents consult teachers on matters concerning their children's education	16.70%	44.40%	16.70%	18.10%	4.20%	2.486	1.100
Some parents visit school frequently to know about the progress of their children in learning activities	26.40%	45.80%	9.70%	18.10%	0.00%	2.194	1.030
Composite Mean and Standard Deviation						**2.938**	**0.709**
Valid N=50							

As shown in Table 4.15, the study established that on average, the Form 4 class teachers agreed that most parents attended academic clinics as shown by 3.639. On the other hand, these class teachers held a neutral view regarding whether most parents attended PTA meetings given a mean of responses of 3.431. The Form 4 class teachers further disagreed that most parents consulted teachers on matters concerning their children's education and that some parents visited school frequently to know about the progress of their children in learning activities as supported by means of responses of 2.486 and 2.194 respectively. The composite mean value of responses of 2.938 for the construct suggested that on average, the Form 4 class teachers had a neutral view as it pertained to the statements presented on parental involvement in students' learning activities.

4.5.4 Perceived Link between Parental Involvement in Students' Learning Activities and Students' Academic Participation

The study further sought the general views of the respondents pertaining to the link between parental involvement in students' learning activities and students' academic participation in the public day secondary schools in Makueni County. Figure 4.5 showed the extent parental involvement in students' learning activities influenced students' enrolment, regular school attendance and completion of studies from the perspective of the principals and Form 4 class teachers.

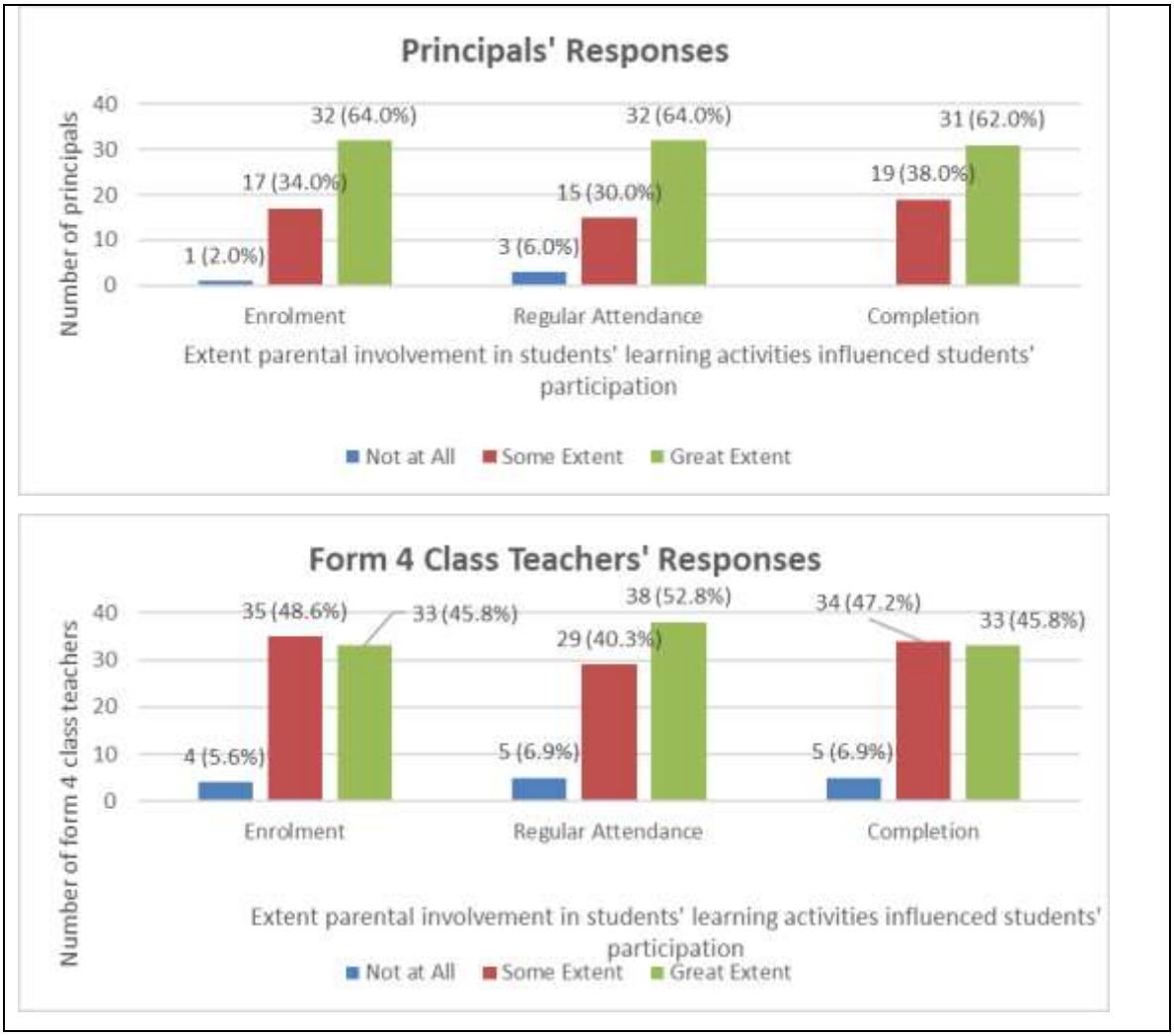


Figure 4.5: Parental Involvement in Students' Learning Activities and Enrolment, Regular School Attendance and Completion of Studies

The findings presented in Figure 4.5 showed that, 2.0% of the principals argued that parental involvement in students' learning activities did not at all influence students' enrollment in school, 34.0% stated that it did influence to some extent while the majority, 60.0%, reported that parental involvement in students' learning activities influenced students' enrollment in school to a great extent. The findings also revealed that, 6.0% of the principals argued that parental involvement in students' learning activities did not in any way influence regular school attendance, 30.0% noted that it did influence to some extent while the majority of the principals, 64.0%, held that regular school attendance was greatly influenced by parental involvement in students' learning activities. It was

further observed that 38.0% of the principals asserted that parental involvement in students' learning activities to some extent influenced students' completion of studies while 62.0%, the majority, indicated great influence.

Considering the views of the Form 4 class teachers, 5.6% of the were of view that parental involvement in students' learning activities did not at all influence students' enrollment in school, 48.6% believed it did influence to some extent while 45.8% noted that parental involvement in students' learning activities greatly influenced students' enrollment in school. The study findings revealed that 6.9% of the Form 4 class teachers argued that parental involvement in students' learning activities did not at all influence regular school attendance, 40.3% asserted that it influenced to some extent while 52.8%, the majority, stated that parental involvement in students' learning activities to a great extent influenced regular school attendance. According to 6.9% of the Form 4 class teachers, parental involvement in students' learning activities did not at all influence students' completion of studies, 47.2% indicated that it did influence to some extent while 45.8% of these teachers asserted that parental involvement in students' learning activities greatly influenced completion rates.

Analysis of the responses from the interviewed area chiefs revealed that 85.0% of them observed that in deed, there were some students who left or dropped out of school before completing their studies due to lack of parental involvement in their learning activities.

4.5.5 Correlation Analysis

The correlation test results presented in Table 4.16 were used to determine the nature of the correlation that existed between parental involvement in students' learning activities and students' academic participation in public day secondary schools in Makueni County.

Table 4.16: Correlation between Parental Involvement in Students' Learning Activities and Students' Academic Participation

		Students' Academic Participation	Parental Involvement in Students' Learning Activities
Students' Academic Participation	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	122	
Parental Involvement in Students' Learning Activities	Pearson Correlation	.699**	1
	Sig. (2-tailed)	.000	
	N	122	122

** Correlation is significant at the 0.01 level (2-tailed).

The results presented in Table 4.16 revealed that parental involvement in students' learning activities and students' academic participation in public day secondary schools in Makueni County were positively, strongly and significantly correlated as demonstrated by (r=.699, p=.000, p< .05).

4.5.6 Regression Analysis and Hypothesis Testing

Bivariate regression analysis was conducted to reveal the relationship that existed between parental involvement in students' learning activities and students' academic participation in public day secondary schools in Makueni County. By determining the relationship between these two variables, it was possible to establish the influence that parental involvement in students learning activities had on students' academic participation in the said schools. To guide the analysis, the following null hypothesis was formulated and tested: -

H_O2: There is no statistically significant influence between parental involvements in students' learning activities on students' academic participation in public day secondary schools in Makueni County.

Table 4.17 contains the regression results obtained after mean of responses for students' academic participation in public day secondary schools were regressed against the mean

of responses of parental involvement in students' learning activities for the principals and Form 4 class teachers combined.

Table 4.17: Parental Involvement in Students' Learning Activities and Students' Academic Participation

Model Summary						
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**		
1	.699a	0.489	0.485	0.612098		
a Predictors: (Constant), Parental involvement in students' learning activities						
ANOVAa						
Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	43.052	1	43.052	114.908	.000b
	Residual	44.96	120	0.375		
	Total	88.012	121			
a Dependent Variable: Students' academic participation in public day secondary Schools in Makueni County						
b Predictors: (Constant), Parental involvement in students' learning activities						
Coefficientsa						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**		
		B	**Std. Error**	**Beta**	**t**	**Sig.**
1	(Constant)	1.081	0.210		5.143	0.000
	Parental involvement in students' learning activities	0.723	0.067	0.699	10.72	0.000
a Dependent Variable: Students' academic participation in public day secondary schools in Makueni County						

4.5.6.1 Model Summary

From the model summary results in Table 4.17, it was evident that parental involvement in students' learning activities explained a considerable proportion of the variance in students' academic participation in public day secondary schools in Makueni County. The computed R Square equal to 0.489 was a demonstration that changes in parental

involvement in students' learning activities on its own, explained 48.9% of the variance in the students' academic participation in these schools. The rest of the variance in students' academic participation in public day secondary schools in Makueni County, 51.1%, was linked to other factors that were not considered in this analysis.

4.5.6.2 Significance of the Model

The ANOVA results outlined in Table 4.17 were used to determine whether the model used to show the link between parental involvement in students' learning activities and students' academic participation in the public day secondary schools in Makueni County was significant. The results revealed that F (1, 120) = 114.908 and p=0.000. Since the computed p value was less than 0.05, it was inferred that the model used was significant or adequate and that using the fitted model, students' academic participation in public day secondary schools in Makueni County could be predicted when the values of parental involvement in students' learning activities are given.

4.5.6.3 Regression Estimates

The regression estimates in Table 4.17 showed that parental involvement in students' learning activities had a positive significant influence on students' academic participation in public day secondary schools in Makueni County as supported by β = 0.723 and p = .000 where p<0.05. These findings suggested that a unit increase in parental level of involvement in students' learning activities would result to increased student academic participation in public day secondary schools in Makueni County by 0.723 when all other factors were held constant. As highlighted above, the p value that was computed was less than 0.05. As result, the null hypothesis that parental involvement in students' learning activities has no statistically significant influence on students' academic participation in public day secondary schools in Makueni County was rejected. It was therefore inferred that parental involvement in students' learning activities had a statistically significant influence on students' academic participation in public day secondary schools in Makueni County.

Using the computed regression estimates, the following model was fitted: -

$Y = 1.081 + 0.723 X_2$

Where; **Y**= Students' academic participation in public day secondary schools in Makueni County, **X_2**= Parental involvement in students' learning activities

4.6 Home-School Distance and Students' Academic Participation in Public Day Secondary Schools in Makueni County

The third objective of the study was to determine the influence of home-school distance on students' participation in public day secondary schools in Makueni County. Before testing the relationship between these variable, the home-school distance in the study context was evaluated by considering the information provided by the principals, Form 4 class teachers and the PA chairpersons.

4.6.1 Distance between School Location and the Nearest Town

The study determined how far the sampled schools were from the nearest town. The responses of the principals and Form 4 class teachers are summarized in Table 4.18.

Table 4.18: Distance between School Location and the Nearest Town (Kilometres)

	N	Range	Min	Max	Mean	SD
Distance between school and nearest town (principals)	50	24.95	0.05	25	4.70	6.60
Distance between school and nearest town (Form 4 class teachers')	72	24.80	0.20	25	7.44	7.10

Based on the principals' responses as revealed by the findings presented in Table 4.18, the average distance of the sampled schools from the nearest town was 4.70km where the schools located nearer to town were 50m away while those located far away were located 25km away. The standard deviation of 6.60km meant that there was great variability in the distance between the location of the sampled schools and the nearest towns. Focusing on the Form 4 class teachers' responses, the average distance between the sampled schools and the nearest towns was 7.44km. The schools located nearer to towns were

200m away while the furthest were located 25km away. The standard deviation also pointed to greater variability in the distance between the location of the sampled schools and the nearest towns.

4.6.2 Approximate Distance Covered by the Furthest Student to Reach School

The study investigated the approximate number of kilometers that the furthest student covered to reach school. Figure 4.6 provides the responses of the principals and Form 4 class teachers.

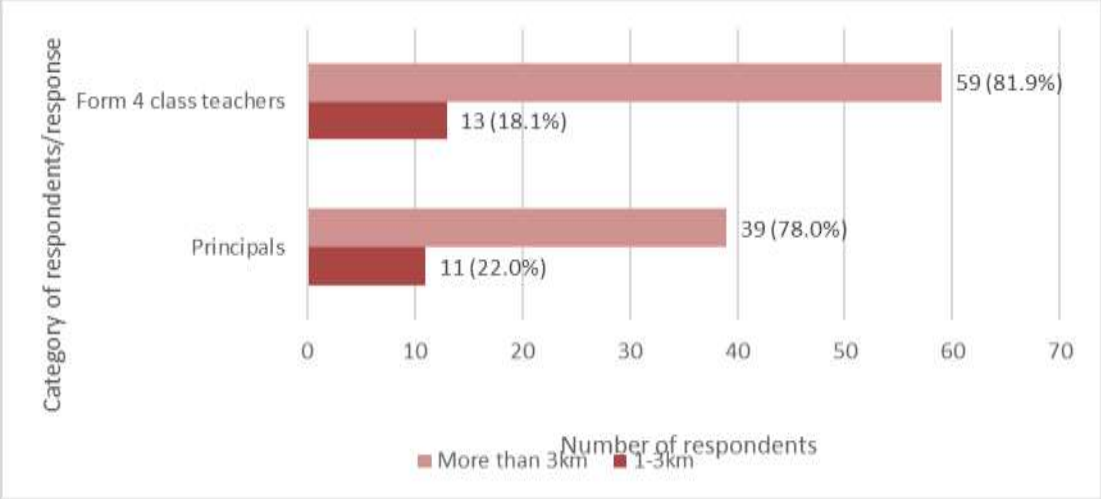


Figure 4.6: Approximate Distance Covered by the Furthest Student to Reach School

The results presented in Figure 4.6 revealed that, the distance covered by the furthest student to reach school was more than 3km according to the majority of the principals (78.0%) and Form 4 class teachers (81.9%). The rest of the principals (22.0%) and Form 4 class teachers (18.1%) indicated that the furthest student to reach school covered a distance of 1-3km. The majority of the interviewed PA chairpersons, 72.0%, observed that the approximate distance covered by the majority of the students to reach school was more than 3km. The rest, 28.0% in number, reported that students in their schools covered approximately 1 to 3km to reach school. For the area chiefs, 35.0% of them indicated that students covered approximately 1-3km to reach school while 65.0%, the majority, asserted that, the distance covered by the students was more than 3km.

4.6.3 Means of Transport Used by Students to Reach School

The study also assessed the various means of transport used by students to reach the sampled schools. The responses of the principals and Form 4 class teachers are as outlined in Table 4.19.

Table 4.19: Percentage of Students Using Various Means of Transport to Reach School

Category of Respondent	Means of Transport	N	Min	Max	Mean	Std. Deviation
Principals	Walking	50	10	100	85.5	19.6
	Bicycles	25	1	40	12.5	11.9
	Motorbikes	17	1	20	3.9	4.6
	Matatus	13	1	50	10.3	13.8
Form 4 class teachers	Walking	68	10	100	85.5	20.1
	Bicycles	47	1	40	9.4	8.0
	Motorbikes	29	1	30	6.1	8.2
	Matatus	19	1	61	16.0	18.1

The findings presented in Table 4.19 showed that on average, 85.5% of the students in the sampled public day secondary schools in Makueni County reached school by walking as stated by both the principals and Form 4 class teachers. On average, the students reaching these schools using bicycles were 12.5% according to the principals and 9.4% based on the class teachers' responses. The students who used motorbikes were 3.9% and 6.1% on average based on the principals' and Form 4 class teachers' responses respectively. The principals indicated that on average, 10.3% of the students reached school by boarding matatus while the Form 4 class teachers believed that on average, 16.0% of the students in their schools reached school using matatus. From the interviews conducted with the PA chairpersons and area chiefs, most students in the public secondary schools in Makueni County walked to school with a few using bicycles and motorbikes. Some of the PA chairpersons' responses were recorded as follows: -

> "Majority of students walk on foot; some students are not safe on the way" PA Chairperson 2 … "Our learners walk to school and a few use bicycles" PA Chairperson 5 … "Almost all students walk to and from school" PA Chairperson

17 … “Majority walk, some use bicycles and others motorbikes” PA Chairperson 50

4.6.4 Safety of Students on their Way to School

The safety of students from the sampled public day secondary school in Makueni County on their way to school was also explored from the viewpoint of the PA chairpersons and the area chiefs. Majority of the PA chairpersons, 94.0%, decried that these students were not safe. The main arguments posed in support of this observation was that, besides students arriving in school tired, some students indulged in alcohol, drug and substance abuse, indiscipline acts, others were harmed by wild animals and hostile people while others especially girls, were taken advantage sexually resulting to unwanted pregnancies. Some of the PA chairpersons explained that,

> “Our learners are not safe on the way. Drug addicts influence them on the way” PA Chairperson 8 … “Students are not safe. Some girls misbehave on the way. Some also boys engage in drugs” PA Chairperson 11 … “Those who came from far are not safe. Attacks from wild animals, hostile people and drug addicts create insecurity” PA Chairperson 12 … “Some students even walk 7km to attend the school. They arrive tired are not safe” PA Chairperson 16 … “Our girls are not safe since we get reports that sometimes, some girls spent nights in local markets” PA Chairperson 21 … “Students are not safe at all. Drugs and early marriages are witnessed among them” PA Chairperson 38 … “Some students are forced to use any means of transport including free lifts from motorbike riders some of whom take advantage of them” PA Chairperson 49 … “The students are not safe on the way. We have girls who become pregnant and boys using drugs due to bad company on the way” PA Chairperson 50

According to 45.0% of the area chiefs, the students were not safe at all, 35.0% stated that the students were somehow safe while 15.0% believed that the students were safe on their way to school. Just like the PA chairpersons, the area chiefs who decried that students in the sampled schools were not safe on their way to school reiterated the issue of exposure to drug and substance abuse, engagement in indiscipline acts leading some to drop out of

school, and girls who became pregnant after they were taken advantage by idle strangers along the way. Those who indicated that the students were somehow safe observed that only isolated cases of indiscipline had been reported.

4.6.5 Measures of Home-School Distance

The principals and Form 4 class teachers were further presented with six (6) items related to home school distance for which they were expected to indicate the degree of their agreement or disagreement with them on a five-point Likert scale. The reaction of the principals to these items is reflected in the results outlined in Table 4.20.

Table 4.20: Principals' Responses on Measures of Home-School Distance

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
Walking long distances subject students to tiredness and fatigue.	0.00%	10.00%	2.00%	44.00%	44.00%	4.220	0.910
Walking long distances exposes students to insecurity.	2.00%	6.00%	14.00%	38.00%	40.00%	4.100	0.931
The movement of students to/from school encourage drug and substance abuse in day secondary schools	4.00%	4.00%	6.00%	52.00%	34.00%	4.080	0.966
Due to long distances, some students arrive at school late.	4.00%	12.00%	6.00%	52.00%	26.00%	3.840	1.076
Most students in this school walk long distances to school	2.00%	16.00%	10.00%	46.00%	26.00%	3.780	1.075
Use of motorbikes/matatus exposes students to harassments	8.00%	18.00%	24.00%	36.00%	14.00%	3.300	1.165
Composite Mean and Standard Deviation Valid N=50						**3.887**	**0.675**

As shown in Table 4.20, the principals on average agreed that walking long distances not only subjected students to tiredness and fatigue, but also exposed them to insecurity as supported by the means of responses of 4.220 and 4.100 respectively. On average, the principals also agreed that the movement of students to/from school encouraged drug and substance abuse in day secondary schools, that due to long distances, some students arrived at school late and that most students in their schools walked long distances to school as demonstrated by the means of responses of 4.080, 3.840 and 3.780 respectively. The principals nevertheless, on average had a neutral view regarding whether the use of motorbikes/matatus exposed students to harassments. The composite mean value of responses of 3.887 for this construct suggested that on average, the principals agreed with the statements presented on home-school distance. Table 4.21 contains the results that show how the Form 4 class teachers reacted to the statements presented on home-school distance.

Table 4.21: Form 4 Class Teachers' Responses on Measures of Home-School Distance

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
The movement of students to/from school encourage drug and substance abuse in day secondary schools	0.00%	1.40%	6.90%	33.30%	58.30%	4.486	0.692
Walking long distances subject students to tiredness/fatigue	1.40%	9.70%	1.40%	52.80%	34.70%	4.097	0.937
Due to long distances, some students arrive at school late	1.40%	8.30%	13.90%	40.30%	36.10%	4.014	0.986
Walking long distances exposes students to insecurity	0.00%	12.50%	15.30%	38.90%	33.30%	3.931	0.998
Most students in this school walk long distances to school	4.20%	12.50%	5.60%	48.60%	29.20%	3.861	1.104
Use of motorbikes/ matatus exposes students to harassments	12.50%	15.30%	36.10%	30.60%	5.60%	3.014	1.094
Composite Mean and Standard Deviation Valid N=72						**3.901**	**0.587**

The study results outlined in Table 4.21 revealed that on average, the Form 4 class teachers agreed that the movement of students to/from school encouraged drug and substance abuse in day secondary schools, that walking long distances subjected students to tiredness and fatigue and that due to long distances, some students arrived at school late as supported by the means of responses of 4.486, 4.097 and 4.014 respectively. The study also established that the Form 4 class teachers on average agreed that walking long

distances exposed students to insecurity and that most students in their schools walked long distances to school as demonstrated by the means of responses of 3.931 and 3.861 respectively. The Form 4 class teachers nonetheless on average indicated that the use of motorbikes/matatus exposed students to harassments given the mean value of 3.014. The overall mean value of 3.901 for the construct was an indication that the Form 4 class teachers on average agreed with the statements presented on home-school distance.

4.6.6 Perceived Link between Home – School Distance and Students' Academic Participation

The study further sought the views of principals and class teachers concerning the link between home school distance and students' academic participation in public day secondary schools in Makueni County in terms of enrolment, regular attendance and completion of studies by seeking the views of the principals and Form 4 class teachers. Their responses are provided in Figure 4.7.

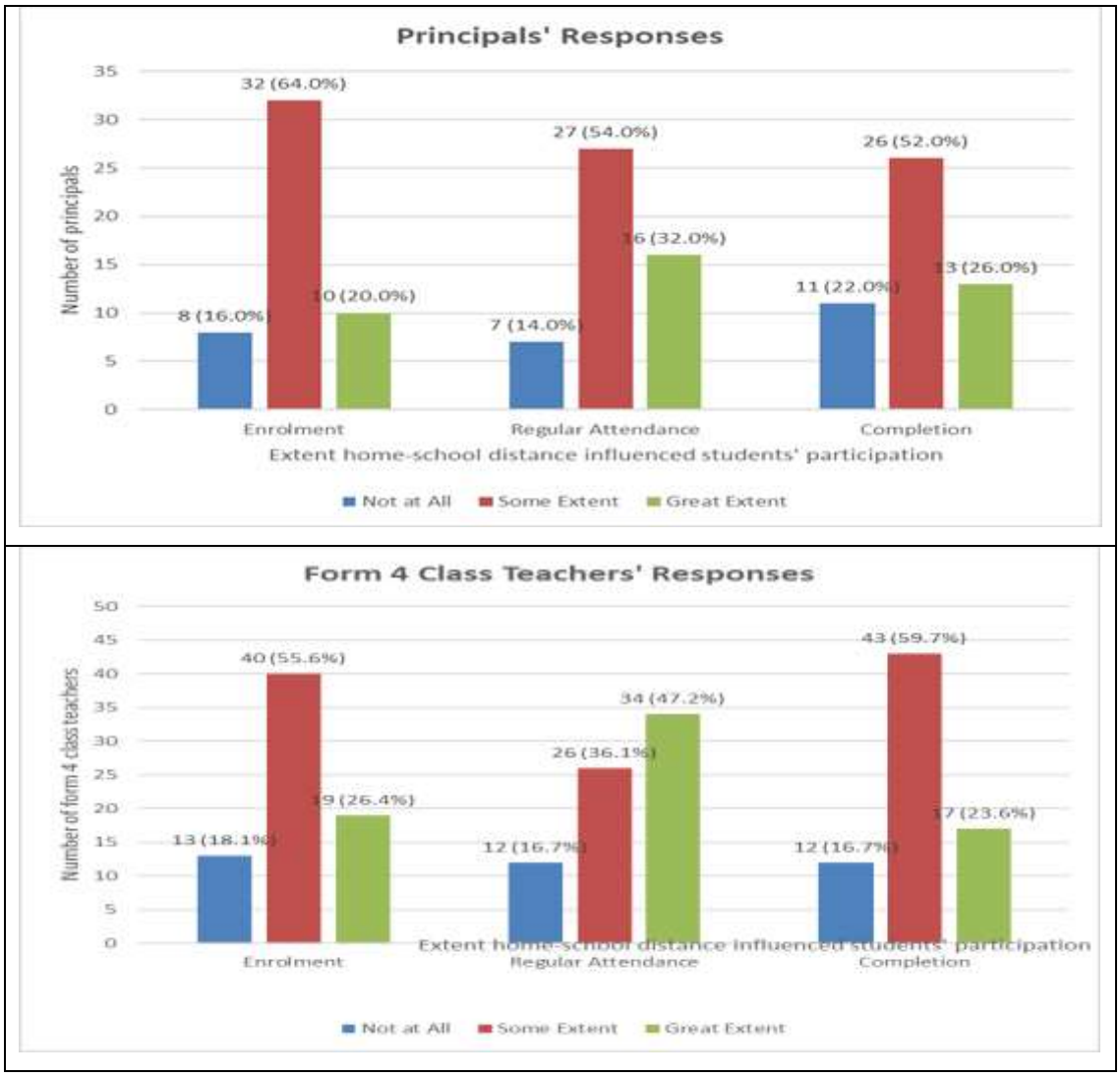


Figure 4.7: Home-School Distance and Enrolment, Regular School Attendance and Completion of Studies

As shown in Figure 4.7, the study found that 16.0% of the principals asserted that home-school distance did not influence students' enrolment in the surveyed schools at all, 64.0%, the majority stated that home-school distance to some extent influenced students' enrolment in these schools while 20.0% reported great influence. Pertaining to regular school attendance, 14.0% of the principals indicated that it was not at all influenced by home school distance, 54.0%, the majority, argued that it was influenced to some extent while 32.0% of the respondents believed that home school distance influenced regular school attendance in the sampled schools. The study results also showed that 22.0%

home school distance did not influence completion of studies among students, 52.0%, the majority, argued that home school distance to some extent influenced completion rates while 26.0% of the respondents noted that home school distance greatly influenced the completion of studies in the said schools.

Assessment of the Form 4 class teachers' responses showed that 18.1% of these teachers pointed out that home school distance had no influence on students' enrolment in the sampled schools, 55.6%, the majority argued that there was some influence while 26.4% of the class teachers noted that home school distance to a great extent influenced students' enrolment in to school. Pertaining to regular school attendance, 16.7% of the sampled Form 4 class teachers stated that it was noted influenced by home school distance, and 36.1% indicated that it was influenced to some extent while 47.2% of these class teachers argued that home school distance influenced regular school attendance to a great extent. It was observed that 16.7% of the Form 4 class teachers held the view that home school distance did not influence completion of studies, 59.7%, the majority, argued that home school distance influenced completion of studies to some extent while 23.6% of these class teachers asserted that home school distance to a great extent influenced completion of studies among students.

The majority of the PA chairpersons, 94.0%, observed that students' regular school attendance in the public day secondary schools in Makueni County was to a great extent affected by home-school distance as some students arrived in school late. Moreover, majority of the PA chairpersons, 70.0%, asserted that completion of studies in the said schools was influenced by home-school distance citing cases of drug and substance abuse and indiscipline acts along the way and which were induced by peer pressure.

4.6.7 Correlation Analysis

Pearson's correlation test was conducted to determine the correlation between parental involvement in students' learning activities and students' academic participation in public day secondary schools in Makueni County. The correlation results obtained are contained in Table 4.22.

Table 4.22: Correlation between Home-School Distance and Students' Academic Participation

		Students' Academic Participation	Home-School Distance
Students' Academic Participation	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	122	
Home-School Distance	Pearson Correlation	-.665**	1
	Sig. (2-tailed)	.000	
	N	122	122

** Correlation is significant at the 0.01 level (2-tailed).

Based on the findings presented in Table 4.22, the study established that the correlation between home-school distance and students' academic participation in public day secondary schools in Makueni County was negative, strong and significant given (r=-.665, p=.000, p< .05).

4.6.8 Regression Analysis and Hypothesis Testing

The individualized influence of home-school distance on students' academic participation in public day secondary schools in Makueni County was determined by conducting a bivariate regression analysis. The mean of responses for students' academic participation in public day secondary schools in Makueni County were regressed against the mean of responses of home-school distance for all the principals and Form 4 class teachers combined. The following null hypothesis was formulated and tested: -

H_o3: There is no statistically significant influence between home-school distance and students' academic participation in public day secondary schools in Makueni County.

The results emanating from the bivariate regression analysis between home-school distance and students' academic participation in the public day secondary schools in Makueni County are provided in Table 4.23.

Table 4.23: Home-School Distance and Students' Academic Participation

Model Summary						
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**		
1	.665a	0.442	0.437	0.639915		
a Predictors: (Constant), Home-school distance						
ANOVAa						
Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	38.873	1	38.873	94.929	.000b
	Residual	49.139	120	0.409		
	Total	88.012	121			
a Dependent Variable: Students' academic participation in public day secondary Schools in Makueni County						
b Predictors: (Constant), Home-school distance						
Coefficientsa						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**		
		B	**Std. Error**	**Beta**	**t**	**Sig.**
1	(Constant)	4.635	0.153		30.271	0.000
	Home-school distance	-0.417	0.043	-0.665	-9.743	0.000
a Dependent Variable: Students' academic participation in public day secondary schools in Makueni County						

4.6.8.1 Model Summary

Looking at the model summary results outlined in Table 4.23, the R Square obtained was 0.442. This coefficient of determination proved that home-school distance explained a significant proportion of the variance in students' academic participation in the public day secondary schools in Makueni County. According to the results, a change in home-school distance was attributed to 44.2% variance in students' academic participation in the public day secondary schools in Makueni County. The rest of the variance in students' participation in these schools (55.8%) can be attributed to other factors that were left out in this analysis.

4.6.8.2 Significance of the Model

Using the ANOVA results in the second output in Table 4.23, the significance of the model used in assessing the relationship between home-school distance and students' academic participation in public day secondary schools in Makueni County was determined. The results showed that F (1, 120) = 94.929 and p=0.000. The computed p value less than 0.05 influenced the inference that the model used in this case was significant and hence, when values of home-school, distance were provided, it was possible to use the model to predict the level of students' academic participation in the public day secondary schools in Makueni County.

4.6.8.3 Regression Estimates

Home-school distance and students' academic participation in public day secondary schools in Makueni County were found to be inversely and significantly related as illustrated by the computed β = -0.417 and p = .000. These findings meant that home-school distance had a negative significant influence on students' academic participation in these schools since the calculated p value was less than 0.05. According to these results, when all other factors were held constant, a unit increase in home-school distance would result to decreased students' academic participation in these schools by 0.417 units. Consequently, the null hypothesis that home-school distance did not significantly influence students' academic participation in public day secondary schools in Makueni County was rejected. Therefore, it was inferred that home-school distance significantly influenced students' academic participation in public day secondary schools in Makueni County. With increased home-school distance, students' academic participation in these schools would considerably decline. The following model was fitted using the regression estimates obtained: -

$$\mathbf{Y= 4.635 - 0.417X_3}$$

Where; **Y**= Students' academic participation in public day secondary schools in Makueni County, $\mathbf{X_3}$= Home-school distance

4.7 Parental Level of Education and Students' Academic Participation in Public Day Secondary Schools in Makueni County

The fourth objective of this study was to establish the influence of parental level of education on students' participation in public day secondary schools in Makueni County. The parental level of education in these schools was first determined based on the views of the principals, Form 4 class teachers, PA chairpersons and area chiefs.

4.7.1 Education Level of Majority of the Parents in the School

The principals and Form 4 class teachers were asked to indicate the level of education attained by the majority of the parents in their schools.

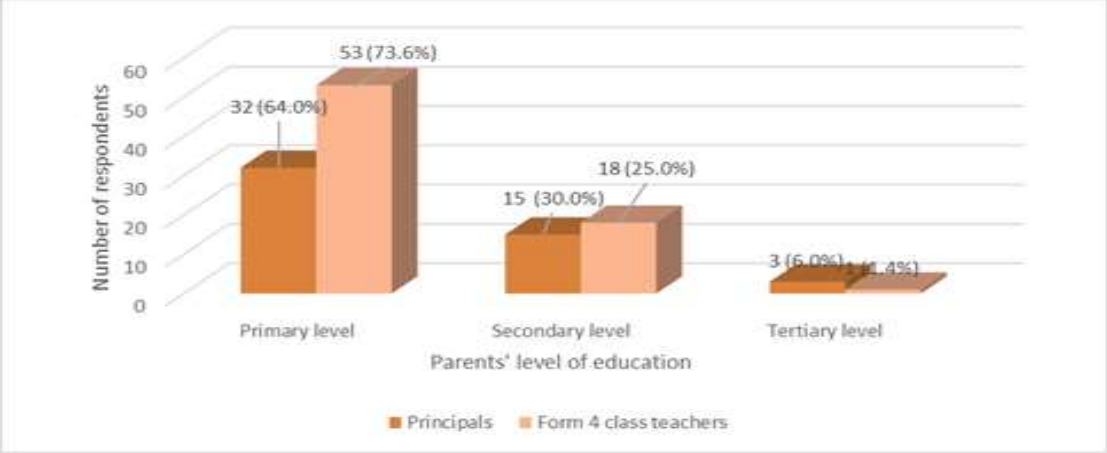


Figure 4.8: Education Level of Majority of the Parents in the Sampled Schools

From the results displayed in Figure 4.8, it was evident that majority of the principals (64.0%) of the principals indicated that the majority of the parents in their schools had attained primary level education, 30.0% noted that majority of the parents had secondary education while 6.0% reported that the majority of the parents in their schools had obtained tertiary education. In the same vein, the majority of the Form 4 class teachers (73.6%) stated that the majority of the parents in their schools had attained primary level education, 25.0% asserted that these parents had secondary education while 1.4% indicated that majority of the parents in their schools had attained tertiary level education. The majority of the interviewed PA chairpersons (66.0%) indicated that most parents in their schools had primary level education while the rest indicated secondary level

education. Some of the PA chairpersons who asserted that most parents in their schools had primary level education explained that,

> "Primary level, in this school, very few parents have Form 4 certificate." PA Chairperson 16 … "Primary level. This school is situated in an interior location and hence, parents are not exposed" PA Chairperson 18 … "Primary level. We face challenges when choosing PA representatives since Form 4 certificate is required" PA Chairperson 28 … "Primary level. This has led to majority of the parents not consulting with teachers to know progress of the students" PA Chairperson 32 … 'Primary level. Only very few parents have attained secondary education" PA Chairperson 34 … "Majority are primary school graduates. Therefore, they are straining to have their children attain secondary level education" PA Chairperson 49

4.7.2 Measures of Parental Level of Education

The principals and Form 4 class teachers reacted to four (4) items in the parental level of education construct where they indicated the extent they agreed with the statements based on a five-point Likert scale. Table 4.24 contains principals' responses.

Table 4.24: Principals' Responses on Measures of Parental Level of Education

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
Most parents have basic formal education	12.00%	20.00%	16.00%	42.00%	10.00%	3.180	1.224
Most parents have the intellectual capacity to support their children to be comfortable and to adjust to their learning development	4.00%	48.00%	16.00%	28.00%	4.00%	2.800	1.030
Most parents understand better the proper educational resources/materials needed by their children	10.00%	30.00%	38.00%	20.00%	2.00%	2.740	0.965
Most parents have the basic knowledge and skills to guide and counsel their children in learning activities	22.00%	40.00%	16.00%	18.00%	4.00%	2.420	1.144
Composite Mean and Standard Deviation						**2.785**	**0.537**
Valid N=50							

On average, as shown in Table 4.24, the principals held a neutral view regarding whether most parents in their schools had basic formal education and whether the parents had the intellectual capacity to support their children to be comfortable and to adjust to their learning development as revealed by the means of responses of 3.180 and 2.800 respectively. The principals also on average neither agreed nor disagreed that most parents in their schools understood better the proper educational resources/materials needed by their children given a mean value of 2.740. Further, the principals disagreed that most parents in their schools had the basic knowledge and skills needed in guiding and counseling their children in their learning activities as depicted by the mean value of 2.420. The responses of the sampled Form 4 class teachers are outlined in Table 4.25.

Table 4.25: Form 4 Class Teachers' Responses on Measures of Parental Level of Education

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
Most parents have basic formal education	6.90%	30.60%	15.30%	43.10%	4.20%	3.069	1.092
Most parents have the intellectual capacity to support their children to be comfortable and to adjust to their learning development	4.20%	31.90%	37.50%	26.40%	0.00%	2.861	0.861
Most parents understand better the proper educational materials needed by their children	9.70%	37.50%	34.70%	12.50%	5.60%	2.667	1.007
Most parents in this school have the basic knowledge and skills to guide and counsel their children in their learning activities	19.40%	45.80%	11.10%	23.60%	0.00%	2.389	1.056
Composite Mean and Standard Deviation						**2.747**	**0.501**
Valid N=72							

From Table 4.25, it was noted that on average, the Form 4 class teachers as well held a neutral view regarding to whether most parents in their schools had basic formal education, whether these parents had the intellectual capacity to support their children to be comfortable and to adjust to their learning development and whether the parents understood better the proper educational resources/materials needed by their children as illustrated by the mean values of 3.069, 2.861 and 2.667 respectively. The findings also showed that these sampled Form 4 class teachers on average disagreed that most parents in their schools had the basic knowledge and skills needed in guiding and counseling their children in their learning activities as demonstrated by the mean value of 2.389. The

overall mean value of 2.747 suggested that on average, the sampled Form 4 class teachers held a neutral view regarding the statements presented on parental level of education.

4.7.3 Perceived Link between Parental Level of Education and Students' Academic Participation

The study further sought the respondents' views regarding whether parental level of education influenced students' academic participation in the public day secondary schools in Makueni County in terms of enrolment, regular attendance and completion of studies. The principals' and Form 4 class teachers' responses are as provided in Figure 4.9.

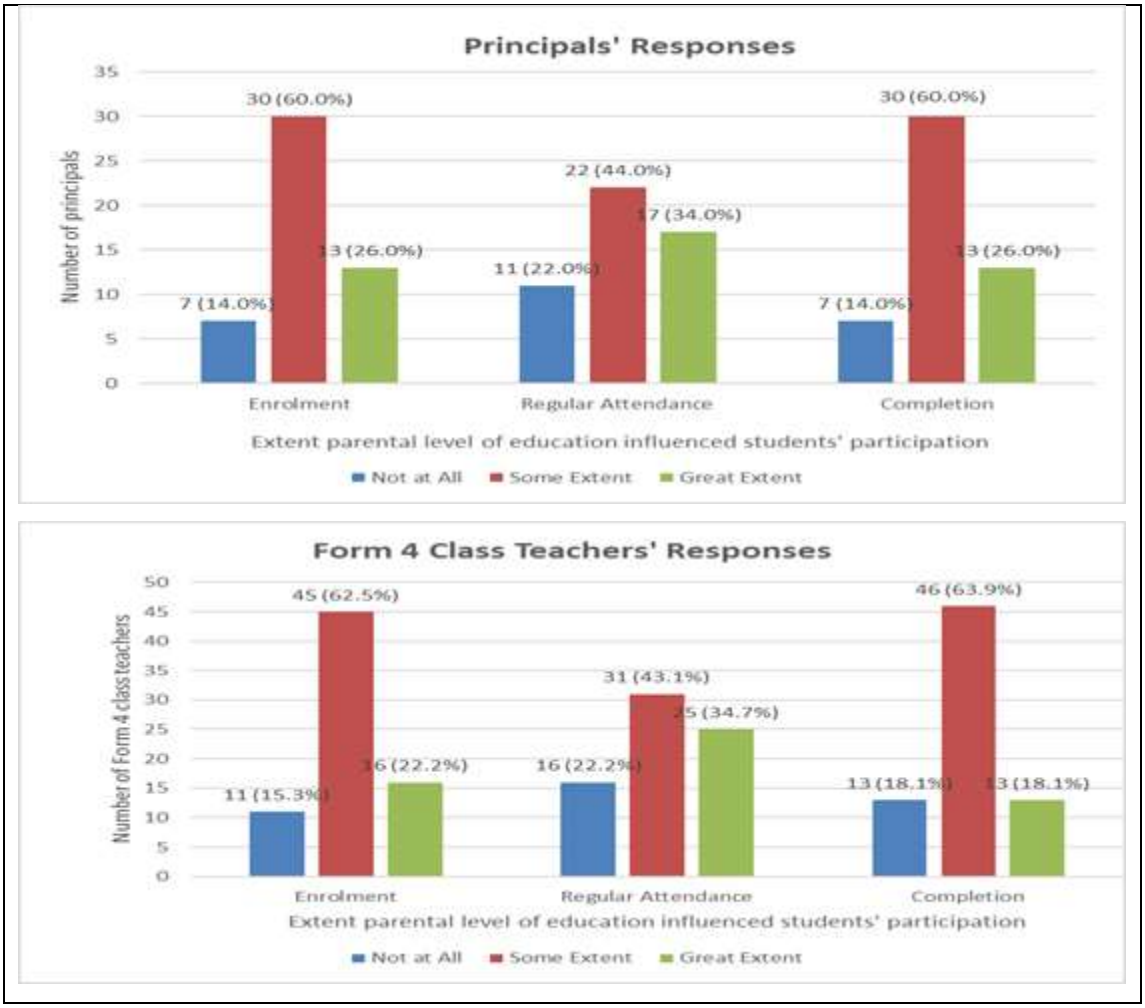


Figure 4.9: Parental Level of Education and Enrolment, Regular School Attendance and Completion of Studies

The study results displayed in Figure 4.9 showed that 14.0% of the principals noted that parental level of education did not influence students' enrolment in school, 60.0%, the majority, indicated that enrolment was to some extent influenced by parental level of education while 26.0% argued that parental level of education to a great extent influenced students' enrolment in school. 22.0% of the principals asserted that parental level of education had no influence on regular school attendance, 44.0% noted that regular school attendance was to some extent influenced by parental level of education while 34.0% of the principals were of the view that parental level of education to a great extent influenced regular school attendance among students. According to 14.0% of the principals, parental level of education did not at all influence completion of studies among students, 60.0%, the majority, indicated that parental level of education to some extent influenced completion of studies while 26.0% of the principals reported that completion of studies was to a great extent influenced by parental level of education.

The responses of the Form 4 class teachers showed that 15.3% of these teachers noted that parental level of education did not influence students' enrolment in school, 62.5%, the majority, indicated that enrolment was to some extent influenced by parental level of education while 22.2% argued that parental level of education to a great extent influenced students' enrolment in school. The study also established that 22.2% of the Form 4 class teachers asserted that parental level of education had no influence on regular school attendance, 43.1% noted that regular school attendance was to some extent influenced by parental level of education while 34.7% of the Form 4 class teachers argued that parental level of education to a great extent influenced regular school attendance among students. It was further found that 18.1% of the Form 4 class teachers stated that parental level of education did not at all influence completion of studies among students, 63.9%, the majority, indicated that parental level of education to some extent influenced completion of studies while 18.1% of the principals reported that completion of studies was to a great extent influenced by parental level of education.

The analysis of the PA chairpersons' responses showed that majority of them, 62.0% and 86.0%, argued that student enrolment and regular attendance in the public day secondary

schools in Makueni County were to a great extent influenced by parental level of education. A larger proportion of these PA chairpersons, 46.0%, indicated that completion of studies among students in these schools was influenced to a great extent by parental level of education. Some of their responses are quoted as follows,

> "Majority of parents who do not take their children to high school are educated up to the primary level" PA Chairperson 38 … "Yes, very much, students who have not enrolled in secondary schools are from parents who are illiterate (not attained secondary level)" PA Chairperson 40 … "Yes, very much. Parents with low level of education caused their children to be absent from school with no remarkable reason" PA Chairperson 24 … "Yes, most of the students whose attendance and completion are affected, have parents who have attained primary level education" PA Chairperson 26 … "To a very great extent. Some are given responsibilities instead of going to school, for example, herding cattle" PA Chairperson 32 … "Yes, due to low academic level of parents some students drop out of school and they do not question them" PA Chairperson 30

From the interviews with area chiefs, majority of them, 75.0% and 90.0%, stated that parental level of education to a great extent influenced student enrolment and regular school attendance in the public day secondary schools in Makueni County. A considerable number of the area chiefs, 55.0%, noted that parental level of education also influenced students' completion of studies to a great extent in the said schools. Further analysis showed that 7 (35.0%) of the area chiefs observed that there were some learners in their communities who left or dropped out of school before completing Form 4 due to low parental level of education.

4.7.4 Correlation Analysis

To determine the correlation between parental level of education and students' academic participation in public day secondary schools in Makueni County, Pearson's correlation was conducted. The results obtained are presented in Table 4.26.

Table 4.26: Correlation between Parental Level of Education and Students' Academic Participation

		Students' Academic Participation	Parental Level of Education
Students' Academic Participation	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	122	
Parental Level of Education	Pearson Correlation	.651**	1
	Sig. (2-tailed)	.000	
	N	122	122

** Correlation is significant at the 0.01 level (2-tailed).

As revealed in Table 4.26, the correlation between parental level of education and students' participation in public day secondary schools in Makueni County was not only positive and strong but also significant as confirmed by (r=.651, p=.000, p< .05).

4.7.5 Regression Analysis and Hypothesis Testing

The study sought to establish the influence of parental level of education on students' academic participation in public day secondary schools in Makueni County. Bivariate regression analysis was carried out to show the individualized influence of parental level of education on students' academic participation in these schools. The mean of responses for students' academic participation in public day secondary schools in Makueni County were regressed against the mean of responses of parental level of education for all the principals and Form 4 class teachers. The following is the null hypothesis that was formulated and tested in this case.

H_o4: There no statistically significant influence between parental level of education and students' academic participation in public day secondary schools in Makueni County.

Table 4.27 outlines the results obtained following the bivariate regression analysis between parental level of education and students' academic participation in the public day secondary schools in Makueni County.

4.7.5.1 Model Summary

The first output in Table 4.27 contains the model summary results. As shown, the R Square value was 0.424 suggesting that 42.4% of the variance in students' academic participation in public day secondary schools in Makueni County was attributed to changes in parental level of education. The rest of the variance in students' academic participation in these schools (57.6%) was thus linked to factors that not considered in this analysis. It can therefore be argued that parental level of education explained a considerable proportion of the variance in students' participation in the said schools.

Table 4.27: Parental Level of Education and Students' Academic Participation

Model Summary						
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**		
1	.651a	0.424	0.419	0.65015		
a Predictors: (Constant), Parental level of education						
ANOVAa						
Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	37.288	1	37.288	88.215	.000b
	Residual	50.723	120	0.423		
	Total	88.012	121			
a Dependent Variable: Students' academic participation in public day secondary Schools in Makueni County						
b Predictors: (Constant), Parental level of education						
Coefficientsa						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**		
		B	**Std. Error**	**Beta**	**t**	**Sig.**
1	(Constant)	1.070	0.240		4.464	0.000
	Parental level of education	0.735	0.078	0.651	9.392	0.000
a Dependent Variable: Students' academic participation in public day secondary schools in Makueni County						

4.7.5.2 Significance of the Model

The ANOVA results presented in Table 4.27 led to the inference that the regression model that was fitted to show the relationship between parental level of education and students' academic participation in public day secondary schools in Makueni County was significant. This inference was based on these results, F (1, 120) = 88.215 and p=0.000 where p<0.05. These results implied that when the values of parental level of education were provided, this regression model could be used in predicting the students' academic participation in the public day secondary schools in Makueni County.

4.7.5.3 Regression Estimates

From the regression estimates in Table 4.27, parental level of education positively and significantly influenced students' academic participation in public day secondary schools in Makueni County as supported by β = 0.735 and p = .000 where p<0.05. These results implied that holding all other factors constant, increased parental level of education by one unit would translate to increased students' academic participation in these schools by 0.735 units. With calculated p<0.05, the null hypothesis that parental level of education had no statistically significant influence on students' academic participation in public day secondary schools in Makueni County was rejected. Accordingly, it was inferred that parental level of education had a statistically significant influence on students' academic participation in public day secondary schools in Makueni County. The optimal model fitted in this case using the regression estimates obtained is given as follows: -

$$\mathbf{Y= 1.070 + 0.735X_4}$$

Where **Y**= Students' academic participation in public day secondary schools in Makueni County, $\mathbf{X_4}$=Parental level of education

4.8 Home Environment and Students' Academic Participation in Public Day Secondary Schools in Makueni County

The firth objective of the study was to establish the influence of home environment on students' academic participation in public day secondary schools in Makueni County. The home environment from where these students came from was first assessed by

relying on the responses of the principals, Form 4 class teachers, PA chairpersons and area chiefs.

4.8.1 Measures of Home Environment

The students' home environment was first explored by asking the principals and Form 4 class teachers to give their views on three (3) items that were used as measures of home environment. Their responses were based on a five-point Likert scale where they indicated their degree of agreement or disagreement with the statements. The principals' responses are provided in Table 4.28.

Table 4.28: Principals' Responses on Measures of Home Environment

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
Most students in this school are from stable and functional families	2.00%	12.00%	32.00%	32.00%	22.00%	3.600	1.030
Most students in this school live with both parents	6.00%	6.00%	38.00%	38.00%	12.00%	3.440	0.993
Most students in this school have parents/ guardians who do not use alcohol and drugs	2.00%	12.00%	38.00%	42.00%	6.00%	3.380	0.855
Composite Mean and Standard Deviation						**3.473**	**0.618**
Valid N=50							

The findings outlined in Table 4.28 showed that the principals on average agreed that most students in their schools were from stable and functional families as revealed by the mean of responses of 3.600. On the other hand, the principals on average held a neutral view on whether most students in their schools lived with both parents and also whether

their parents/guardians did not use alcohol and drugs. This finding was supported by the means of responses of 3.440 and 3.380 respectively. The overall mean of 3.475 for the home environment construct meant that on average, the principals held a neutral view regarding the statements presented to them on home environment. The reaction of the sampled Form 4 class teachers on the various statements presented as measures of home environment is depicted by the findings presented in Table 4.29.

Table 4.29: Form 4 Class Teachers' Responses on Measures of Home Environment

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
Most students in this school are from stable and functional families	4.20%	15.30%	15.30%	45.80%	19.40%	3.611	1.095
Most students in this school live with both parents	1.40%	13.90%	34.70%	40.30%	9.70%	3.431	0.901
Most students in this school have parents/ guardians who do not use alcohol and drugs	0.00%	16.70%	34.70%	41.70%	6.90%	3.389	0.848
Composite Mean and Standard Deviation						**3.477**	**0.592**
Valid N=72							

The study based on the study results outlined in Table 4.29 established that on average, the sampled Form 4 class teachers agreed that most students in their schools were from stable functional families as demonstrated by the mean value of 3.611. They however had a neutral view pertaining to whether most students in their schools lived with both parents and whether their parents/guardians did not use alcohol or drugs as revealed by the means of responses of 3.431 and 3.389 respectively. The composite mean value of 3.477

suggested that on average, the sampled Form 4 class teachers had a neutral view on the statements presented on home environment.

4.8.2 Perceived Link between Home Environment and Students' Academic Participation

The study sought to determine if there was perceived association between home environment and students' academic participation in the public day secondary schools in Makueni County by seeking the views of the principals and Form 4 class teachers on the extent home environment influenced student enrolment, their regular school attendance and completion of studies. The views provided by these respondents are provided in Figure 4.10.

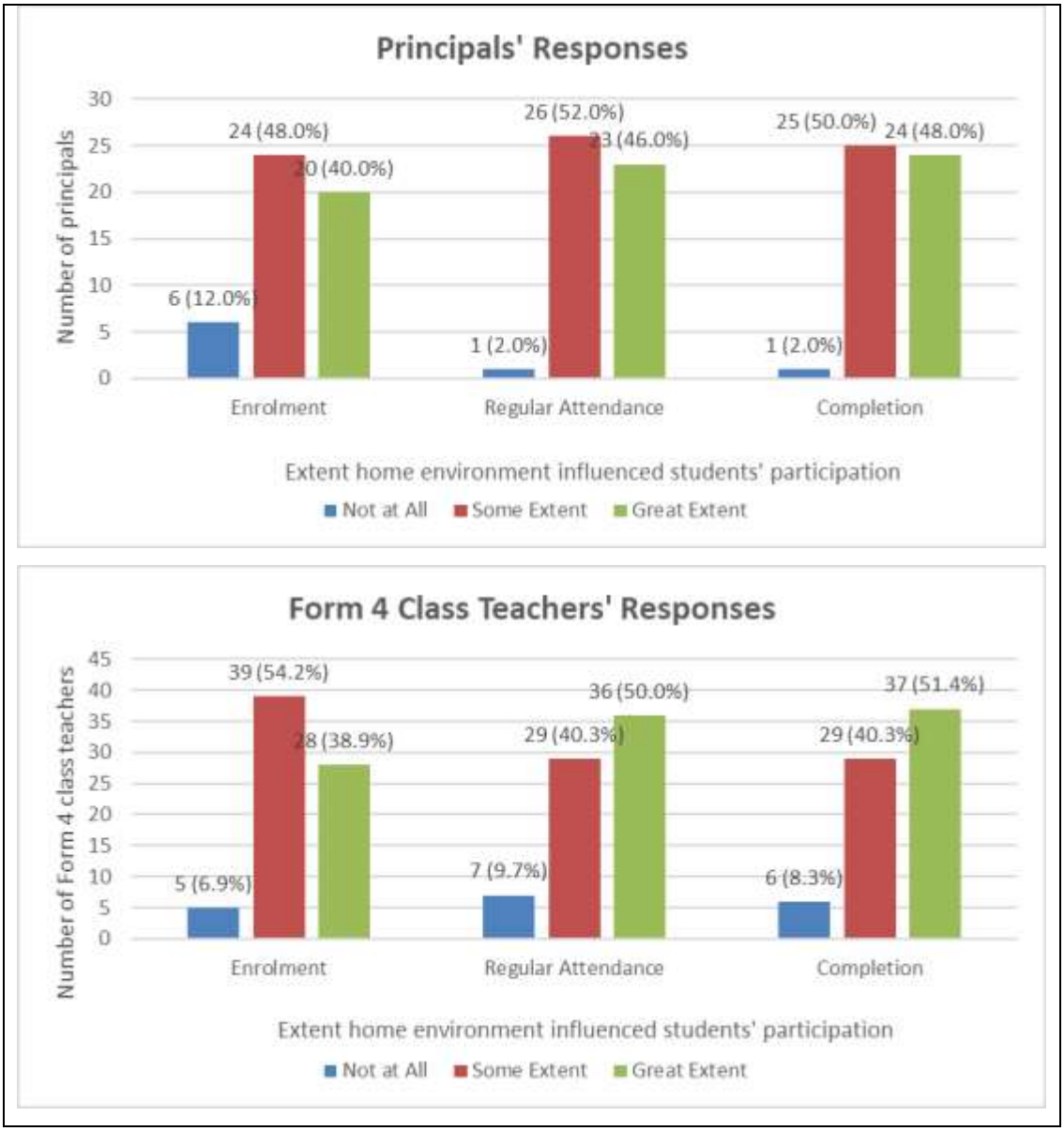


Figure 4.10: Home Environment and Enrolment, Regular School Attendance and Completion of Studies

The study findings presented in Table 4.10 revealed that 12.0% of the principals argued that home environment did not at all influence students' enrolment in the surveyed schools, 48.0% said it influenced to some extent while 40.0% asserted that home environment to a great extent influenced students' enrolment in these schools. Focusing on the Form 4 class teachers, 6.9% pointed out that home environment had no influence on students' enrolment in their school, 54.2% stated that it did influence to some extent

while 38.9% of these teachers observed that students' enrolment in the targeted schools was influenced by home environment to a great extent.

Pertaining to regular school attendance, 2.0% of the principals were of the view that home environment did not have any influence, 52.0%, the majority, noted that there was some influence while 46.0% of these principals, reported great influence. The study results also show that 9.7% of the Form 4 class teachers underlined that regular school attendance was not at all influenced by home environment, 40.3 % reported that it did influence to some extent while 50.0% of the teachers, found that home environment greatly influenced students' regular school attendance.

According to 2.0% of the principals, home environment did not at all influence students' completion rates, 50.0% asserted that there was some influence while 48.0% of the principals noted that the influence was great. From the Form 4 class teachers' perspective, 8.3% believed that home environment did not influence students' completion rates, 40.3% indicated it influenced to some extent while 51.4% of the teachers who were also the majority, argued that home environment to a great extent influenced students' completion rates in the public day secondary schools in Makueni County.

4.8.3 Correlation Analysis

The correlation test results presented in Table 4.30 were used to determine the nature of the correlation that existed between home environment and students' academic participation in public day secondary schools in Makueni County.

Table 4.30: Correlation between Home Environment and Students' Academic Participation

		Students' Academic Participation	Home Environment
Students' Academic Participation	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	122	
Home Environment	Pearson Correlation	.681**	1
	Sig. (2-tailed)	.000	
	N	122	122

** Correlation is significant at the 0.01 level (2-tailed).

From the findings presented in Table 4.30, home environment and students' participation in public day secondary schools in Makueni County were positively and significantly correlated. The correlation between the two variables was also found to be strong as supported by the (r=.681, p=.000, p< .05).

4.8.4 Regression Analysis and Hypothesis Testing

Bivariate regression analysis was further undertaken to determine the influence that home environment had on students' academic participation in public day secondary schools in Makueni County. The mean of responses for students' participation were regressed against the mean of responses of home environment for all the principals and Form 4 class teachers. The following null hypothesis was formulated and tested: -

H_o5: There is no statistically significant influence between home environment and students' academic participation in public day secondary schools in Makueni County.

The results that emanated from the bivariate regression analysis between home environment and students' participation in the public day secondary schools in Makueni County are outlined in Table 4.31.

4.8.4.1 Model Summary

From the model summary results presented in Table 4.31, it was inferred that home environment explained a significant proportion of the variance in students' academic participation in Makueni County. The R Square equal to 0.463 obtained demonstrated

that 46.3% of the variance in students' academic participation in public day secondary schools in Makueni County was attributed to variance in home environment. The rest of the variance in students' academic participation in these schools (53.7%) was explained by other factors not taken in to account in this regression analysis.

Table 4.31: Home Environment and Students' Academic Participation

Model Summary						
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**		
1	.681a	0.463	0.459	0.627458		
a Predictors: (Constant), Home environment						
ANOVAa						
Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	40.767	1	40.767	103.548	.000b
	Residual	47.244	120	0.394		
	Total	88.012	121			
a Dependent Variable: Students' academic participation in public day secondary schools in Makueni County						
b Predictors: (Constant), Home environment						
Coefficientsa						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**		
		B	**Std. Error**	**Beta**	**T**	**Sig.**
1	(Constant)	0.767	0.251		3.056	0.003
	Home environment	0.764	0.075	0.681	10.176	0.000
a Dependent Variable: Students' academic participation in public day secondary schools in Makueni County						

4.8.4.2 Significance of the Model

The study established that the model fitted to show the relationship between home environment and students' academic participation in the public day secondary schools in Makueni County was significant based on the ANOVA results provided in Table 4.31. According to the results, F (1, 120) = 103.548 and p=0.000 where p<0.05. These findings suggested that it was possible to predict the level of students' academic participation in

public day secondary schools in Makueni County using this regression model when the values of home environment were provided.

4.8.4.3 Regression Estimates

Based on the regression estimates in Table 4.31, it was inferred that home environment had a positive significant influence on students' academic participation in public day secondary schools in Makueni County given β = 0.764 and p = .000 where p<0.05. Holding all other factors constant, a unit increase in favourable home in environment would lead to increased students' academic participation in these schools by 0.764 units. The calculated p value of 0.000 led to the rejection of the null hypothesis that home environment had no statistically significant influence on students' academic participation in public day secondary schools in Makueni County. An inference was therefore made that home environment had a statistically significant influence on students' academic participation in public day secondary schools in Makueni County. The optimal model fitted once the regression estimates had been computed is shown below: -

$$\mathbf{Y= 0.767 + 0.764X_5}$$

Where **Y**= Students' academic participation in public day secondary schools in Makueni County, $\mathbf{X_5}$=Home environment.

4.9 Students' Academic Participation in Public Day Secondary Schools in Makueni County

The study further assessed students' academic participation in public day secondary schools in Makueni County. Students' academic participation was evaluated in terms of students' enrolment in school, regular school attendance and completion of studies.

4.9.1 Measures of Students' Academic Participation in Public Day Secondary Schools

The principals and Form 4 class teachers reacted to three (3) items in the students' academic participation construct where they stated the extent they agreed or disagreed with them on a five-point Likert scale. The principals' responses are provided in Table 4.32.

Table 4.32: Principals' Responses on Measures of Students' Academic Participation in Public Day Secondary Schools in Makueni County

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
Most students complete their studies in time in this school	2.00%	18.00%	10.00%	56.00%	14.00%	3.620	1.008
Most students in this school attend classes regularly	4.00%	24.00%	8.00%	54.00%	10.00%	3.420	1.090
Students enroll in this school to almost maximum capacity	10.00%	30.00%	8.00%	40.00%	12.00%	3.140	1.262
Composite Mean and Standard Deviation						**3.393**	**0.890**
Valid N=50							

From the results outlined in Table 4.32, the principals on average agreed that most students in their schools completed their studies in time as demonstrated by the mean of responses of 3.620. On the other hand, the principals on average had a neutral stand regarding whether most students in their schools attended classes regularly and whether student enrolment was almost maximum capacity as revealed by the mean values of 3.420 and 3.140 respectively. The composite mean value of 3.393 for the construct was a demonstration that on average, the principals held a neutral view as it relates to students' participation in public day secondary schools in Makueni County. The responses of the Form 4 class teachers pertaining to students' participation in the sampled schools are outlined in Table 4.33.

Table 4.33: Form 4 Class Teachers' Responses on Measures of Students' Academic Participation in Public Day Secondary Schools in Makueni County

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	SD
Most students complete their studies in time in this school	1.40%	22.20%	8.30%	54.20%	13.90%	3.569	1.032
Most students in this school attend classes regularly	1.40%	34.70%	5.60%	51.40%	6.90%	3.278	1.064
Students enroll in this school to almost maximum capacity	19.40%	37.50%	6.90%	33.30%	2.80%	2.625	1.215
Composite Mean and Standard Deviation						**3.157**	**0.818**
Valid N=50							

Based on the study results presented in Table 4.33, it was inferred that the Form 4 class teachers on average agreed that most students in their schools completed their studies in time as illustrated by the mean value of 3.569. On the contrary, these class teachers on average held a neutral view on whether most students in their schools attended classes regularly and whether students enrolled in the schools to almost maximum capacity as shown by the mean values of 3.278 and 2.625 respectively. The overall mean value of 3.157 suggested that on average, the Form 4 class teachers held a neutral view regarding students' participation in the sampled public day secondary schools in Makueni County. Looking at the responses of the principals and Form 4 class teachers above, it can be deduced that on average, there was average students' participation in the public day secondary schools in Makueni County.

4.9.2 Student Enrolment in the Sampled Schools

Student enrolment in the sampled public day secondary schools in Makueni County was evaluated using data obtained from academic registers as provided by the principals.

Enrolment across Form 1, 2, 3 and 4 was assessed and the results are presented in Table 4.34.

Table 4.34: Number of Students Enrolled in Schools

Class	Category	N	Range	Min	Max	Mean	SD
	Boys	49	112	10	122	43	23
Form 1 (2019)	Girls	49	107	8	115	42	24
	Boys	49	176	10	186	40	27
Form 2 (2020/2021)	Girls	48	118	7	125	40	24
	Boys	49	165	9	176	40	28
Form 3 (2021/2022)	Girls	48	115	5	120	38	24
	Boys	49	190	9	199	38	29
Form 4 (2022)	Girls	48	97	8	105	35	21

From Table 4.34, it was noted that the average number of boys enrolled in Form 1, 2, 3 and 4 was 43, 40, 40 and 38 respectively. The range of boys enrolled in Form 1, 2, 3 and 4 in these schools was 112, 176, 165 and 190 respectively. Across all classes, the standard deviations were less than the average, an indication that there was less variability in the number of boys enrolled in the sampled schools. The average number of girls enrolled in the sampled schools in Form 1, 2, 3 and 4 was 42, 40, 38 and 35 respectively with the computed standard deviations revealing that there was less variability in the number of girls enrolled in these schools. The range of girls enrolled in Form 1, 2, 3 and 4 in these schools was 107, 118, 115 and 97 respectively.

4.9.3 Regular School Attendance

The study also determined the number of students who attended school on a regular basis in the sampled public day secondary schools in Makueni County as captured in the attendance registers provided by the principals. The results are in Table 4.35.

Table 4.35: Number of Students who Attended School on a Regular Basis

Class	Category	N	Range	Min	Max	Mean	SD
Form 1 (2019)	Boys	49	105	10	115	41	22
	Girls	49	103	7	110	40	23
Form 2 (2020/2021)	Boys	49	175	9	184	40	28
	Girls	48	117	6	123	38	24
Form 3 (2021/2022)	Boys	49	162	9	171	39	28
	Girls	48	105	5	110	37	23
Form 4 (2022)	Boys	49	188	9	197	38	29
	Girls	48	97	8	105	34	21

The results provided in Table 4.35 showed the average number of Form 1, 2, 3 and 4 boys who attended school on a regular basis in the sampled schools was 41, 40, 39 and 38 respectively. The standard deviations less than the means across all the four classes meant that there was less variability in the number of boys who attended school on a regular basis in the sampled schools. The range of the number of Form 1, 2, 3 and 4 boys who attended school on a regular basis in the sampled schools was 105, 175, 162 and 188 respectively. The study results also showed that the average number of girls who regularly attended school in the sampled schools in Form 1, 2, 3 and 4 was 40, 38, 37 and 34 respectively. The standard deviations obtained revealed that there was less variability in the number of girls who regularly attended school in these schools. The range of Form 1, 2, 3 and 4 girls who attended school on a regular basis in these schools was 103, 117, 105 and 97 respectively.

4.9.4 Student Termination from School

The number of students terminated from school in the sampled public day secondary schools in Makueni County as recorded in academic registers was investigated.

Table 4.36: Number of Students Terminated from School

Class	Category	N	Range	Minimum	Max	Mean	SD
Form 1 (2019)	Boys	49	9	0	9	2	2
	Girls	49	13	0	13	2	3
Form 2 (2020/2021)	Boys	49	9	0	9	2	2
	Girls	48	8	0	8	2	2
Form 3 (2021/2022)	Boys	49	6	0	6	2	2
	Girls	48	5	0	5	2	2
Form 4 (2022)	Boys	49	5	0	5	1	1
	Girls	48	9	0	9	1	2

The results provided in Table 4.36 showed that the average number of Form 1, 2 and 3 boys and girls terminated from the sampled schools was 2 while in Form 4, an average of one boy and girl was terminated from school. The range of the number of Form 1, 2, 3 and 4 boys terminated in the sampled schools was 9, 9, 6 and 5 respectively while for the girls, the range was 13, 8, 5 and 9 respectively. The main reasons for termination of students from school across all the classes were evaluated and the cross-cutting reasons cited in this case are outlined in Table 4.37.

4.9.5 Reasons for Students Termination from School

The main reasons for students' termination from school across all the classes were evaluated and the cross- cutting reasons cited in this case outlined in table 4. 27.

Table 4.37: Reasons for Students' Termination from School

Reason	Frequency	Percent
Lack of school fees/accumulated fees arrears	35	70.0
Unwanted pregnancies	13	26.0
Dropping out to work	10	20.0
Poor performance/inability	9	18.0
Drug and substance abuse	8	16.0
Indiscipline acts due to peer pressure	7	14.0
Transfers	6	12.0
Unfavourable home environment	5	10.0
Lack of parental concern	4	8.0
Disappearing or escaping from school	3	6.0

The findings as outlined in Table 4.37 showed that majority of the principals (70.0%) indicated that students were terminated from school due to lack of school fees or accumulated school arrears. A considerable number of principals, 26.0%, 20.0%, 18.0%, 16.0% and 14.0% also cited unwanted pregnancies, dropping out to work, poor performance/inability, drug and substance abuse and indiscipline acts due to peer pressure as major reasons for students' termination from school respectively. Other reasons cited for students' termination from public day secondary schools in Makueni County were transfers (12.0%), unfavourable home environment (10.0%), poor parental concern (8.0%) and disappearance or escaping from school (6.0%). It can therefore be argued that, accumulated fees arrears were the major reason for students' termination from school across Form 1, 2, 3 and 4 in public day secondary schools in Makueni County.

4.9.6 Approximate Number of Students Whose School Attendance and Completion was Affected by Reason

Table 4.38 contains descriptive statistics that show the approximate number of students, both boys and girls, whose school attendance and completion was affected by parents' inability to pay school fees, lack of parental involvement, long home-school distance, low parental education, unfavourable home environment, alcohol, drugs and substance abuse and teenage pregnancies.

Table 4.38: Number of Students' whose School Attendance and Completion was Affected by Reason

Reason		Gender	N	Min	Max	Mean	SD
Parents' inability to pay school fees	School Attendance	Boys	47	0	60	11	15
		Girls	42	0	60	11	14
	Completion	Boys	40	0	60	7	12
		Girls	39	0	60	9	15
Lack of parental involvement	School Attendance	Boys	34	0	60	9	14
		Girls	34	0	50	8	12
	Completion	Boys	30	0	45	7	11
		Girls	31	0	49	7	12
Long home-school distance	School Attendance	Boys	30	0	40	6	10
		Girls	29	0	50	6	12
	Completion	Boys	26	0	50	5	11
		Girls	27	0	51	6	12
Low parental education	School Attendance	Boys	28	0	55	9	13
		Girls	29	0	40	7	10
	Completion	Boys	26	0	60	8	15
		Girls	27	0	50	8	12
Unfavourable home environment	School Attendance	Boys	31	0	48	9	12
		Girls	33	0	50	9	12
	Completion	Boys	28	0	45	7	12
		Girls	31	0	45	7	12
Alcohol, drugs and substance abuse	School Attendance	Boys	37	0	50	8	10
		Girls	27	0	60	6	14
	Completion	Boys	34	0	37	5	8
		Girls	27	0	45	5	11
Teenage pregnancies	School Attendance	Girls	40	0	50	8	11
	Completion	Girls	36	0	40	7	10

As shown in Table 4.38, the average number of boys whose regular school attendance in the sampled public day secondary schools was affected by parents' inability to pay school fees, lack of parental involvement, long home-school distance, low parental education, unfavourable home environment, alcohol and drugs and substance abuse were 11, 9, 6, 9, 9 and 8 respectively. Regular school attendances for an average of 11, 8, 6, 7, 9, 6 and 8 girls were affected by the above stated reasons as well, respectively. With regards to completion of studies, the findings showed that an average of 7, 7, 5, 8, 7 and 5 boys

were not able to complete their studies due to the above stated reasons respectively. The average number of girls who did not complete school due to parents' inability to pay school fees, lack of parental involvement, long home-school distance, low parental education, unfavourable home environment, alcohol, drugs and substance abuse and teenage pregnancies was 9, 7, 6, 8, 7, 5 and 7 respectively. The computed standard deviations in all the cases were an indication that there was variability in the approximate number of both boys and girls whose school attendance and completion was affected by the above stated reasons.

4.9.7 Suggested Measures to Improve Students' Academic Participation in Secondary Schools

Measures to improve students' academic participation in the public day secondary schools in Makueni County from the standpoint of the principals, Form 4 class teachers and area chiefs were sought. The measures suggested by the principals are summarized in Table 4.39.

Table 4.39: Measures to Improve Students' Academic Participation as Suggested by Principals

Suggested Measures	Frequency	Percent
Offering guidance and counseling to students to deter them from indiscipline acts, being taken advantage and negative peer pressure along the way to and from school	26	52.0
Offering full scholarships to more bright needy students.	21	42.0
Retaining needy bright students irrespective of due arrears.	18	36.0
Sensitization of parents on payment of school fees in time.	17	34.0
Sensitize parents on the need to participate in their children's learning activities.	13	26.0
Work with local administrators, C.D.F offices and well-wishers to secure more scholarships and bursaries for needy students.	7	14.0
Allow parents to pay lunch fees in kind and other user charges in installments.	5	10.0
Frequent meetings with parents on students' learning progress.	4	8.0
Build more boarding facilities to encourage boarding.	3	6.0
Minimize sending students home to collect fees by making arrangements with parents using class teachers.	2	4.0
Involvement of parents in academic audits.	1	2.0
Have a welfare kitty to support needy students meet some costs.	1	2.0

The findings presented in Table 4.39 showed that offering guidance and counseling to students to deter them from engaging in indiscipline acts, being taken advantage and

succumbing to negative peer pressure on their way to and from school, was proposed by 52.0% of the principals. Offering full scholarships to more bright needy students (42.0%), retaining needy bright students irrespective of outstanding arrears (36.0%), sensitizing parents on the need for paying school fees in time (34.0%) and also participating in their children's learning activities (26.0%), working with local administration, C.D.F offices and well-wishers to secure more scholarships and bursaries for needy students (14.0%) as well as allowing parents to pay lunch fees in kind and other user charges in installments (10.0%) were other measures suggested by the principals. About 8.0% of the principals called for frequent meetings with parents on students' learning progress, 6.0% suggested the building of more boarding facilities to enhance the number of boarders, 4.0% emphasized on minimizing the sending of students home to collect fees by making arrangements with parents using class teachers while 2.0% of the principals called for the involvement of parents in academic audits and having a welfare kitty to support needy students meet some costs. The measures to improve students' academic participation in the targeted schools as proposed by the Form 4 class teachers are outlined in Table 4.40.

Table 4.40: Measures to Improve Students' Academic Participation as Suggested by Form 4 Class Teachers

Suggested Measures	Frequency	Percent
Guide and counsel students to prevent them from falling in wrong hands along the way to and from school	42	58.0
Allow payment of school fees in installments	26	36.0
Sensitize parents on the need for education and participating in their children's learning activities	22	30.0
Partner with sponsors to support needy students	17	24.0
Involve parents/guardians in all school activities	14	20.0
Not often sending students home by allowing parents to visit school and negotiate on fees payment pledges	14	20.0
Encourage parents to apply for bursaries	13	18.0
Waiving of fee balances to retain students in school	12	16.0
Accepting fee payments in kind	9	12.0
Set aside a welfare kitty for needy students	3	4.0
More fundraising events to facilitate the construction of boarding facilities	1	2.0
More academic clinics	1	2.0
Constantly engage parents whenever a student is absent	1	2.0

As shown in Table 4.40, the greater number of the Form 4 class teachers (58.0%) reiterated that active guidance and counseling to students was necessary to prevent them from falling in to traps such as indiscipline acts along the way, to and from school due to long distances covered. Other measures proposed by the Form 4 class teachers included allowing the payment of school fees in installments (36.0%), increased sensitization of parents/guardians on the importance of education and their participation in their children's learning activities (30.0%), sponsoring some of the needy students in conjunction with well-wishers (24.0%), involving parents/guardians in all school activities (20.0%) and also allowing them to visit school and negotiate on fees payment pledges so that students are not frequently send home (20.0%). Encouraging parents to apply for bursaries, waiving of fee balances to retain students in school, accepting fee payments in kind, setting aside a welfare kitty for needy students and carrying out more fundraising events to facilitate the construction of more boarding facilities were improvement measures suggested by 18.0%, 16.0%, 12.0%, 4.0% and 2.0% of the Form 4 class teachers respectively. More academic clinics and constantly engaging parents whenever students were absent were improvement measures proposed by 2.0% of these class teachers. The views of the area chiefs are summarized in Table 4.41.

Table 4.41: Measures to Improve Students' Academic Participation as Suggested by Area Chiefs

Suggested Measures	Frequency	Percent
Increase government capitation	17	85.0
Abolish user charges in schools	13	65.0
Sensitize parents on the importance of education to their children and the need to support their learning activities	11	55.0
Encourage students to pursue education	8	40.0
Start feeding programmes	7	35.0
Build more day secondary school near the community	6	30.0
Encourage community members to support day secondary schools	2	10.0

The results outlined in Table 4.41 demonstrated that majority of the area chiefs, 85.0%, called for increased government capitation to cover costs like development fees.

Abolishing user charges (65.0%), sensitizing parents on the importance of education to their children and the need to support their learning activities (55.0%), encouraging students to pursue education (40.0%), implementing feeding programmes (35.0%), building more day secondary schools with adequate teachers near the community (30.0%) as well as encouraging community members to support day secondary schools (10.0%) were measures also recommended by a significant number of area chiefs.

4.9.8 Measures Government Can Implement to Encourage Completion of Studies

The study further enquired from the respondents the measures which the government could implement in order to encourage 100% completion rates in the public day secondary schools in Makueni County.

Table 4.42: Government Measures to Improve Completion Rates as Suggested by Principals

Suggested Measures	Frequency	Percent
Increase bursary schemes and government capitation (FDSE) to cover lunch, uniforms for instance	45	90.0
Abolish all user charges by allocating more funds to schools/ fully fund secondary education including uniforms	42	84.0
Ensure timely release of FDSE funds	39	78.0
Implementing school feeding program to help students who may not be able to pay for lunch	30	60.0
Invest in infrastructural development within schools	3	6.0

From the results provided in Table 4.42, majority of the principals (90.0%) highlighted the need for increased bursary schemes and government capitation (FDSE), for instance, to cover lunch and uniforms. Abolishing all user charges by allocating more funds to schools (84.0%), ensuring timely release of FDSE funds (78.0%) and implementing school feeding programme to help students who may not be able to pay for lunch (60.0%) were also recommended by the majority of the principals as well. Investing in infrastructural development within schools was suggested by 6.0% of the principals. The measures suggested by the Form 4 class teachers are given in Table 4.43.

Table 4.43: Government Measures to Improve Completion Rates as Suggested by Form 4 Class Teachers

Suggested Measures	Frequency	Percent
Ensure full funding of secondary education and provision of basic items to students	68	94.4
Increase government capitation to avoid students dropping due to fees challenges	62	86.1
Invest in student feeding programmes by paying for lunch for both day scholars and boarders	40	55.6
Increasing sponsorships for needy students	33	45.8
Boost bursary schemes	24	33.3

The findings outlined in Table 4.43 revealed that the majority of the Form 4 class teachers (94.4%) argued that the government needed to fully fund secondary education alongside the provision of basic items to students. A majority of these class teachers (86.1%) also called for increased government capitation to avoid students dropping out of school due to fees challenges. Investing in student feeding programmes by paying for lunch for both day scholars and boarders (55.6%), increasing sponsorships for needy students (45.8%) and also boosting bursary schemes (33.3%) were other measures suggested by a considerable number of the Form 4 class teachers. The measures proposed by the area chiefs are further outlined in Table 4.44.

Table 4.44: Government Measures to Improve Completion Rates as Suggested by Chiefs

Suggested Measures	Frequency	Percent
Increased funding to day schools by government to cover development costs alongside other necessities	18	90.0
Sensitize parents/guardians especially that illiterate on the importance of education	15	75.0
More bursaries for needy students	12	60.0
Full scholarship for needy students	11	55.0
Involve parents in the learning activities of their children	6	30.0
Source more well-wishers to support needy students	5	25.0
Upgrade and construct more day schools in rural areas	4	20.0
Provide means of transport for the student to avoid daily interaction with idlers on the way home	1	5.0

It was evident from Table 4.44 that majority of the area chiefs (90.0%) indicated that the government needed to increase funding to day secondary schools to cover development costs alongside other necessities. Majority of the chiefs (75.0%) also argued that there was need for the government to sensitize parents/guardians especially the illiterate on the importance of education for their children. Giving out more bursaries (60.0%) and full scholarships (55.0%) for needy students, ensuring that parents were involved in the learning activities of their children (30.0%), sourcing more well-wishers to support needy students (25.0%), upgrading and constructing more day schools in rural areas (20.0%) as well as providing means of transport where possible for students to avoid daily interaction with idlers on the way home (5.0%) were measures also highlighted by the chiefs.

4.10 Family Based Determinants and Students' Academic Participation in Public Day Secondary Schools in Makueni County

Multivariate regression analysis was conducted to determine the combined or joint influence of family-based determinants on students' academic participation in public day secondary schools in Makueni County. The results from this regression analysis are outlined in Table 4.45.

Table 4.45: Joint Influence of Family Based Factors on Students' Academic Participation

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.884a	0.782	0.773	0.406589

a Predictors: (Constant), Home environment, home-school distance, parental level of education, parental involvement, parents' ability to pay user charges

ANOVAa

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	68.835	5	13.767	83.278	.000b
	Residual	19.176	116	0.165		
	Total	88.012	121			

a Dependent Variable: Students' academic participation in public day secondary schools in Makueni County

b Predictors: (Constant), Home environment, home-school distance, parental level of education, parental involvement, parents' ability to pay user charges

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	1.171	0.293		3.995	0.000
	Parents' ability to pay user charges	0.239	0.05	0.282	4.764	0.000
	Parental involvement in students' learning activities	0.220	0.061	0.213	3.608	0.000
	Home school distance	-0.169	0.034	-0.269	-5.013	0.000
	Parental level of education	0.166	0.065	0.147	2.546	0.012
	Home environment	0.256	0.063	0.228	4.045	0.000

a Dependent Variable: Students' academic participation in public day secondary schools in Makueni County

4.10.1 Model Summary

The findings presented in Table 4.45 demonstrated that changes in family-based factors namely parents' ability to pay user charges, parental involvement in students' learning

activities, home-school distance, parental level of education and home environment jointly explained 78.2% of the variance in students' academic participation in public day secondary schools in Makueni County as supported by the obtained R Square of 0.782. The rest of the variance in students' academic participation in these schools (21.8%) was linked to other factors that were not included in this study. Hence, it can be inferred that changes in family-based determinants considered in this study explained a significant proportion of the variance in students' academic participation in public day secondary schools in Makueni County.

4.10.2 Significance of the Model

The ANOVA results outlined in Table 4.45 revealed that the multiple regression model used in showing the relationship that existed between the family-based determinants under study and students' academic participation in the public day secondary schools in Makueni County was significant as confirmed by F (1, 120) = 83.278 and p=0.000 where $p<0.05$. These results suggested that parents' ability to pay user charges, parental involvement in students' learning activities, home-school distance, parental level of education and home environment satisfactorily predicted students' academic participation in the said schools. Therefore, it was possible to predict students' academic participation in the public day secondary schools in Makueni County when the values of parents' ability to pay user charges, parental involvement in students' learning activities, home-school distance, parental level of education and home environment were provided.

4.10.3 Regression Estimates

The regression estimates from the multiple regression analysis conducted as presented in Table 4.45 revealed that parents' ability to pay user charges/school levies positively and significantly influenced students' academic participation in public day secondary schools in Makueni County given (β=0.239, p=0.000, $p<0.05$). These results implied that holding all other factors constant, a unit increase in parents' ability to pay user charges/school levies would result to increased students' academic participation in these schools by 0.239 units. Parental involvement in students' learning activities was also found to have a significant positive influence on students' academic participation in public day secondary

schools in Makueni County as (β=0.220, p=0.000, p<0.05). When all the other factors were held constant, a unit increase in parental involvement in students' learning activities would result to increased students' academic participation in these schools by 0.220 units. The study results showed that home-school distance had an inverse significant influence on students' academic participation in public day secondary schools in Makueni County as illustrated by (β=-0.169, p=0.000, p<0.05). Holding all the other factors constant, a unit increase in home-school distance would translate to decreased students' academic participation in these schools by 0.169 units. It was also observed that parental level of education positively and significantly influenced students' academic participation in public day secondary schools in Makueni County as demonstrated (β=0.166, p=0.012, p<0.05). A unit increase in parental level of education would increase students' academic participation in these schools by 0.166 units when all other factors are held constant. The study findings further indicated that students' participation in public day secondary schools in Makueni County was positively and significantly influenced by home environment as (β=0.256, p=0.000, p<0.05). These findings implied that when all other factors were held constant, a unit increase in favourable home environment would result in increased students' academic participation in these schools by 0.256 units. Therefore, it can be inferred that family-based determinants considered in this study significantly influenced students' academic participation in public day secondary schools in Makueni County. The following optimal multiple regression model was fitted using the regression estimates obtained: -

$$\mathbf{Y = 1.171 + 0.239X_1 + 0.220X_2 - 0.169X_3 + 0.166X_4 + 0.256X_5}$$

Where:

Y = Students' academic participation in public day secondary schools in Makueni County, X_1 = Parents' ability to pay user charges/school levies, X_2 = Parental involvement in students' learning activities, X_3 = Home school distance, X_4 = Parental level of education, X_5= Home environment.

4.11 Model Assumptions

Before carrying out inferential analysis, a number of diagnostic tests were undertaken for the purposes of checking or ensuring that various assumptions of ordinary linear

regression model were upheld. The diagnostic tests conducted in this case included the tests of normality, multicollinearity test and linearity tests.

4.11.1 Test for Normality

In research, normality tests are applied in determining whether a dataset is drawn from a normal distribution. Several statistical tests or procedures such as correlation, regression analysis and t-tests require that the data used is normally distributed. Test for normality is deem crucial since when the data used contains significant outliers, the relationships being tested as well as the significance tests are usually distorted. Such distortions adversely affect the accuracy of inferences made in a research study. In this study, the Kolmogorov-Smirnov test was applied in checking if the data on parents' ability to pay user charges/school levies, parental involvement in students' learning activities, home-school distance, parental level of education and home environment and students' academic participation in public day secondary schools in Makueni County were drawn from normal distributions. Under this test, the null hypothesis that the data was from a normal distribution was not rejected if the computed Kolmogorov-Smirnov significance or *p*-values for the study variables were greater than 0.05. The results obtained are outlined in Table 4.46.

Table 4.46: Tests for Normality

	Kolmogorov-Smirnova			**Shapiro-Wilk**		
Variables	**Statistic**	**Df**	**Sig.**	**Statistic**	**df**	**Sig.**
Parents' ability to pay user charges/school levies	0.145	122	0.171	0.953	122	0.326
Parental involvement in students' learning activities	0.110	122	0.081	0.966	122	0.274
Home-school distance	0.161	122	0.242	0.869	122	0.137
Parental level of education	0.132	122	0.069	0.957	122	0.121
Home environment	0.140	122	0.133	0.955	122	0.325
Students' academic participation in public day secondary schools in Makueni County	0.121	122	0.158	0.967	122	0.164

The results in Table 4.46 above suggested that the dataset for all the study variables were drawn from normal distributions as the computed significance values were greater than 0.05.

4.11.2 Multicollinearity Test

Multicollinearity is a condition that occurs when two or more explanatory variables in a multiple regression model are highly intercorrelated resulting to skewed or misleading results when one decides to establish how well a particular explanatory/independent variable explains or predicts the dependent variable in a statistical model. Hence, when carrying out linear regression analysis, the multicollinearity assumption must be met. In this study, multicollinearity test using Variance Inflated Factor values was conducted with the intention of ensuring that the independent variables namely parents' ability to pay user charges/school levies, parental involvement in students' learning activities, home-school distance, parental level of education and home environment were not highly correlated so that their effect on students' academic participation in public day secondary schools in Makueni County would be precisely determined. VIF values ranging between 1 and 5 showed that the data used did not suffer the problem of multicollinearity as asserted by several scholars among them Shrestha (2020). The findings are presented in Table 4.47.

Table 4.47: Multicollinearity Test Results

Variables	Tolerance (1/VIF)	VIF
Parents' ability to pay user charges/school levies	0.547	1.829
Parental involvement in students' learning activities	0.536	1.864
Home-school distance	0.652	1.534
Parental level of education	0.571	1.750
Home environment	0.646	1.548

The results outlined in Table 4.47 showed that the computed VIF values for parents' ability to pay user charges/school levies, parental involvement in students' learning activities, home-school distance, parental level of education and home environment were 1.829, 1.864, 1.534, 1.750 and 1.548 respectively. Since these values were in the range of

1 to 5, it was inferred that the data used in this study did not suffer the multicollinearity problem. Hence, it was possible to determine the precise influence of each of these independent variables on students' academic participation in public day secondary schools in Makueni County.

4.11.3 Tests of Linearity

Linearity tests were there is a linear relationship between the dependent variable and the independent variables. The significance of deviations from linearity was considered in this case where *p* values associated with the deviations from linearity greater than 0.05 indicated that linear relationships existed between the independent and dependent variables. The linearity test results are contained in Table 4.48.

Table 4.48: Linearity Test Results

			Sum of Squares	Df	Mean Square	F	Sig.
Students' Academic Participation * Parents' Ability to Pay User Charges/School Levies	Between Groups	(Combined)	51.802	18	2.878	8.186	0.000
		Linearity	46.12	1	46.12	131.188	0.000
		Deviation from Linearity	5.682	17	0.334	0.951	0.518
	Within Groups		36.21	103	0.352		
	Total		88.012	121			
Students' Academic Participation * Parental Involvement in Students' Learning Activities	Between Groups	(Combined)	49.464	14	3.533	9.807	0.000
		Linearity	43.052	1	43.052	119.504	0.000
		Deviation from Linearity	6.413	13	0.493	1.369	0.186
	Within Groups		38.547	107	0.360		
	Total		88.012	121			
Students' Academic Participation * Home-School Distance	Between Groups	(Combined)	49.685	22	2.258	5.834	0.000
		Linearity	38.873	1	38.873	100.41	0.000
		Deviation from Linearity	10.812	21	0.515	1.330	0.175
	Within Groups		38.327	99	0.387		
	Total		88.012	121			
Students' Academic Participation * Parental Level of Education	Between Groups	(Combined)	45.498	14	3.25	8.179	0.000
		Linearity	37.288	1	37.288	93.848	0.000
		Deviation from Linearity	8.21	13	0.632	1.589	0.099
	Within Groups		42.514	107	0.397		
	Total		88.012	121			
Students' Academic Participation * Home Environment	Between Groups	(Combined)	46.419	9	5.158	13.889	0.000
		Linearity	40.767	1	40.767	109.778	0.000
		Deviation from Linearity	5.652	8	0.706	1.902	0.066
	Within Groups		41.592	112	0.371		
	Total		88.012	121			

The results presented in Table 4.48 indicated that linear relationships existed between parents' ability to pay user charges/school levies, parental involvement in students' learning activities, home-school distance, parental level of education in students' learning activities, home environment and students' academic participation in public day secondary schools in Makueni County since the deviations from linearity in all cases were not significant as the associated *p* values were greater than 0.05.

4.11.4 Homoscedascity Test

Homoscedasticity is one of the assumptions of linear regression and holds that the dependent variable gives similar amounts of variance across the range of regression values for an independent variable. The study conducted the homoscedasticity test for pairs of variables using the Levene statistic for the test of homogeneity of variances. The findings are presented in Table 4.49.

Table 4.49: Homoscedascity Test Results

Independent Variable	Levene Statistic	df1	df2	Sig.
Parents' ability to pay user charges/school levies	1.631	14	104	0.083
Parental involvement in students' learning activities	1.220	12	106	0.279
Home-school distance	1.337	16	105	0.189
Parental level of education	1.839	6	109	0.098
Home environment	1.859	9	112	0.065

From the results provided in Table 4.49, the significance (*p*) values associated with the Levene Statistic in all cases were greater than 0.05, it was inferred that the variance was homogenous.

CHAPTER FIVE

5.0 DISCUSSION OF RESULTS

5.1 Introduction

This chapter contains a discussion of the major study findings in relation to existing studies. The study findings were compared with those of past empirical studies to check whether there was consistency or not. The chapter was organized in line with the specific objectives of the study.

5.2 Parents' Ability to Pay User Charges and Students' Academic Participation in Public Day Secondary Schools in Makueni County

The objective of the study was to determine the influence of parents' ability to pay user charges on students' academic participation in public day secondary schools in Makueni County. The study established that public day secondary schools in Makueni County charged various user charges ranging from lunch fee to teacher motivation charges as shown in Table 4.6. Lunch fee was the most common school levy charged across all the sampled schools while remedial fee, uniform fee and development fee in that order were the other most outstanding user charges in these schools. This finding was consistent with the observation made by Wainaina (2016) that the Government of Kenya adopted a cost sharing approach under the Free Day Secondary Education policy where it paid capitation directly to schools while the rest of the costs were to be met by parents/guardians as user charges, forming an extra cost incurred by the household. According to the study results presented in Tables 4.6 and 4.7, the major user charges imposed in these schools were lunch, remedial, uniform and development fees and the amounts charged in these schools were comparable. The finding agreed with the finding by Amuga (2016) that majority of public secondary schools in Kenya had all of the above types of user charges and this caused the cost of education to increase.

Based on the principals' and Form 4 class teachers' responses outlined in Tables 4.8 and 4.9, it was also observed that on average, most parents in the sampled public day secondary schools in Makueni County struggled to pay various school levies on time.

The views of the principals and Form 4 class teachers were reiterated by the area chiefs' unanimous observation that most students in the sampled schools were frequently sent home to collect school fees, mainly more than twice per term (see Pg. 61). This state of affairs was largely linked to the low incomes or poor economic background of many of the parents and in some cases parents' own ignorance on the need to pay the relevant user charges in time as noted by the area chiefs. These findings were consistent with the observations made by Lumosi (2022) and also Giro and Chui (2023) that hidden costs or extra cost of secondary education that parents and guardians had to cater for were a burden to some parents and could lead to exclusion of students from school.

Parents' ability to pay user charges was perceived by the majority of the principals and Form 4 class teachers' to influence students' enrolment, regular school attendance and completion of studies in public day secondary schools in Makueni County to a great extent as revealed in Figure 4.2. A considerable number of cases where students dropped out of school due to lack of school fees were reported by the majority of the principals and Form 4 class teachers as shown in Figure 4.3. This position was also held by the majority of the PA chairpersons and area chiefs who explained that drop out was occasioned by constant missing of classes after being sent home to collect school fees on a frequent basis or being terminated from school due to accumulation of huge fee balances (see Pg. 64). These findings mirrored those of a study by Miako (2012) which linked students' non-attendance of school to parents' failure to pay user charges, the students failed to participate in key school activities. The findings also supported Morgan et al. (2012) observation that user charges could result to exclusion of children whose parents did not pay for school fees leading to absenteeism and non-participation in school. The study findings further agreed with Giro and Chui (2023) finding that parents and guardians' inability to pay other basic levies necessary in covering meals, PTA and uniforms among others, resulted to low students' participation in public secondary schools as a considerable number of students were forced to drop out of school.

The correlation analysis conducted revealed that significant, positive and strong correlation existed between parents' ability to pay user charges and students' academic

participation in public day secondary schools in Makueni County as shown in Table 4.10. The regression analysis results presented in Table 4.11 further confirmed that in deed, parents' ability to pay user charges positively and in a significant way, influenced students' academic participation in public day secondary schools in Makueni County. This resulted to the rejection of the null hypothesis that parents' ability to pay user charges had no statistically significant influence on students' academic participation in public day secondary schools in Makueni County. It was therefore inferred that parents' ability to pay user charges had a statistically significant influence on students' academic participation in public day secondary schools in Makueni County.

The above findings agreed with the finding by Kingori (2015) that hidden costs in education (user charges) particularly school meals charges, PTA levies, development and school uniform fees affected students' participation in public day secondary schools by disrupting school daily attendance as students were always send home to collect school fees while others were forced to drop out so as to earn some income. The findings were also consistent with Wainaina (2016) finding that parents' ability to pay user charges significantly affected students' participation in public secondary schools in terms of daily attendance as a substantial number of students were absent from school due to fees problems while others could not complete their school work. The study findings further agreed with Wanjala (2017) argument that implementation of government-subsidized fees did not fully encourage students to enroll in school due to the inability of parents to pay high school fees levied by school heads.

5.3 Parental Involvement in Students' Learning Activities and Students' Academic Participation in Public Day Secondary Schools in Makueni County

The second objective of this study was to establish the influence of parental involvement in students' learning activities on students' academic participation in public day secondary schools in Makueni County. From the responses of the principals and Form 4 class teachers contained in Figure 4.4 as well as the views of PA chairpersons (see Pg. 69-70); it was evident that the administrations of public day secondary schools in Makueni County organized meetings where teachers met with parents to discuss issues

that pertained to students' learning activities. This meant that parents in these schools had platforms or opportunities through which they could participate in their children's learning activities such as attendance of PTA meetings, consultations and communication with teachers and participation in academic workshops of their children. The above findings agreed with Emmanuel and Andala (2021) observation that parents' involvement in education activities of their children involved participating in parent meetings, the annual academic days, parenting seminars and also various groups such as the PTA. The frequency with which these meetings were held was varied across schools where the larger proportion of these schools organized such meetings every term while in the other cases, these meetings were held once a year or whenever a need arose (Figure 4.4). These findings concurred with Kibali (2016) observation that majority of the parents (87%) were involved in their children's academic progress 2-3 times a year and 13% were involved once a year.

The study observed that the most embraced platforms through which parents could discuss issues touching on their children's learning activities with teachers were academic clinics and PTA meetings while consultations with teachers were the least embraced by parents. This observation was affirmed by the greater percentage of parents who attended academic clinics and PTA meetings in these schools when compared to the percentage that took the personal initiative to consult teachers on their children's learning progress as revealed by principals' and Form 4 class teachers' responses in Tables 4.12 and 4.13 as well as PA chairpersons' and area chiefs' sentiments recorded in Pg. 71. The responses of principals and Form 4 class teachers outlined in Tables 4.14 and 4.15 also affirm the above observation since they revealed that parents in the sampled schools gave greater priority to academic clinics and paid very little attention to visiting school frequently to know about their children's progress in learning activities. For that reason, it was inferred that parental involvement in students' learning activities in the public day secondary schools in Makueni County was largely steered by the schools' administrations rather than the parents themselves. This argument was on the finding that most parents only remembered about school and their children's progress whenever called by school administration or when the children were sent home.

The above findings agreed with the observation made by Orange et al (2022) that most parents did not engage in communication with the school to inquire about their children's academic progress and wellbeing leading to dropout cases. The findings however, contradicted Hartas (2015) finding that in OECD countries nearly all the parents were reported to routinely visit their children's schools to enquire of their progress and often conversed with their children about how they were doing in school and other topics relevant to school life. This contradiction in findings can be attributed to the fact that parental involvement in students' learning activities could differ across contexts based on the level of awareness creation undertaken and extent parents valued their involvement in their children's academic achievements.

The study also noted that generally, parental involvement in students' learning activities had a certain influence on students' enrolment, regular school attendance and their completion of studies as per the arguments of the principals and Form 4 class teachers displayed in Figure 4.5 and the comments of the area chiefs in Page 75. These findings agreed with those of Bunijevac (2017) that parents' participation in activities organized by schools such as parent-teacher conferences significantly impacted students' completion rates as it encouraged children to attend school regularly thus limiting absenteeism and drop out from school.

The correlation analysis results outlined in Table 4.16 showed that parental involvement in students' learning activities and students' participation in public day secondary schools in Makueni County were positively, strongly and significantly correlated. The regression analysis results in Table 4.17 further showed that students' participation in these schools was positively and significantly influenced by parental involvement in students' learning activities and as result, the null hypothesis that parental involvement in students' learning activities had no statistically significant influence on students' academic participation in public day secondary schools in Makueni County was rejected. It was thus inferred that parental involvement in students' learning activities had a statistically significant influence on students' participation in public day secondary schools in Makueni County. These findings were in agreement with the conclusion made by Onyedikachim and

Ezekiel-Hart (2021) which revealed that enhanced parental involvement in educational process increased completion rates, led to realization of better school attendance besides increasing students' motivation to be self-driven in their academic pursuit. The findings also supported Garcia et al (2019) argument that parental involvement in terms of being aware of and involvement in children's school work and a commitment to consistent communication with educators about student progress was among the major factors that contributed students' participation and attainment in academics.

5.4 Home-School Distance and Students' academic Participation in Public Day Secondary Schools in Makueni County

The third objective of the study was to determine the influence of home-school distance on students' academic participation in public day secondary schools in Makueni County. The study found that on average, the sampled public day secondary schools in Makueni County were located far from towns, approximately more than 4km away as shown in Table 4.18. Moreover, students in these schools on average covered relatively long distances to reach school as revealed by responses of the principals and Form 4 class teachers in Figure 4.6 and the views expressed by PA chairpersons in Page. 80. The study also observed that majority of the students in these schools walked to school with a few using bicycles, motorbikes and matatus as shown in Table 4.19. These findings agreed with the observation by Williams (2011) that many day scholars walk for several hours to get to school.

The study also established that walking long distances to and from school subjected students to tiredness and fatigue, forcing some students to reach school late based on principals' and Form 4 class teachers' views outlined in Tables 4.20 and 4.21. This finding concurred with Muruga (2011) who concluded that long home- school distance is a factor that leads to low participation among the students. In addition, covering long distances to reach school compromised the safety of students attending public day secondary schools in Makueni County as some students were influenced to indulge in alcohol, drug and substance abuse and other indiscipline acts due to peer pressure. Other students suffered harm inflicted by wild animals and hostile people along the way. It was

also noted that the safety of girls in these schools was greatly affected as they were highly exposed to sexual predators who took advantage of some, leading to unwanted pregnancies. The above findings are drawn from the views of the principals and Form 4 class teachers' views outlined in Tables 4.20 and 4.21 and also the arguments of PA chairpersons and area chiefs expressed in Pages 81 and 82. Due to the above safety concerns, some students dropped out of school while others were terminated from school as revealed by the data collected from academic registers as shown in Tables 4.37 and 4.38.

The above findings were consistent with Oneya and Onyango (2021) argument that long distance travelled by students resulted to fatigue and headaches. The findings also agreed with Nikitas, Wang and Knamiller (2019) view that students walking long distances to schools may face additional parental concerns about safety and were also consistent with Baliyan and Khama (2020) assertion that travelling or walking long distances to school also distracted students in a way that encouraged early pregnancies in girls and juvenile delinquent behaviours in boys.

The study further discovered that home-school distance to some extent influenced student enrolment, regular school attendance and completion of studies. The correlation test results shown in Table 4.22 confirmed a significant inverse correlation between home-school distance and students' participation in public day secondary schools in Makueni County. The regression analysis results presented in Table 4.23 further revealed that in deed, home-school distance negatively and significantly influenced students' participation in the said schools. This finding can be explained by the earlier observation that due to walking long distance to school, most students arrived in school late, tired and fatigued, others engaged in alcohol drug and substance abuse and other indiscipline acts while some girls were taken advantage of sexually resulting to unwanted pregnancies. Consequently, some students missed classes; others were dropped out of school while some were terminated from school, an indication of constrained students' academic participation. The null hypothesis that home-school distance had no statistically significant influence on students' academic participation in public day secondary schools

in Makueni County was thus rejected. An inference was therefore made that home-school distance had a statistically significant influence students' academic participation in public day secondary schools in Makueni County.

The above findings were consistent with the finding by Dickerson and Mcintosh (2010) that home-school distance affected participation in education and later outcomes whereby, covering long distances to reach school lowered the chance of students completing school on time. The study findings also agreed with Marique et al. (2013) observation that long distances to reach school resulted to absenteeism and cases of dropping out of school due to spending long hours on the road to get there, and home again. The findings also agreed with Evans et al. (2019) argument that reducing the distance covered by students to reach school by building schools strategically near communities considerably enhanced students' regular school attendance and retention rates. The findings further agreed with the finding by Oneya and Onyango (2021) that covering long distances to reach school reduced school attendance and completion rates among students.

5.5 Parental Level of Education and Students' Academic Participation in Public Day Secondary Schools in Makueni County

The fourth objective of this study was to establish the influence of parental level of education on students' participation in public day secondary schools in Makueni County. It was discovered that majority of the parents in the public day secondary schools in Makueni County had primary level education as alluded by the majority of the principals and class teachers whose responses are captured in Figure 4.8. This argument was also held by the interviewed PA chairpersons (see Pg.91). The study noted that, on average, most of these parents had moderate intellectual capacity to support their children's learning development and understanding of the suitable educational materials needed by their children. On the contrary, most of the parents in the mentioned schools lacked the basic knowledge and skills needed in guiding and counseling their children in their learning activities. These findings were based on the views of both the principals and the Form 4 class teachers as shown in Tables 4.24 and 4.25. The findings of this study agreed

with an observation made by Muthoka (2015) in a neighbouring county that a significant percentage of parents and guardians in public day secondary schools were primary school leavers and as a result, could not provide their children with adequate support in their learning as they lacked the necessary knowledge, skills and intellectual capacity.

It was also established that both the principals and Form 4 class teachers believed that student enrolment, regular school attendance and completion of studies in public day secondary schools in Makueni County were to some extent influenced by parental level of education as shown in Figure 4.9. Similar position was held by the PA chairpersons and area chiefs (see Pg. 94 and 95) who for instance noted that parents who had not gone to secondary schools were likely not to enroll their children to such schools, others encouraged absenteeism for no solid reasons, other parents also forced their children to engage in responsibilities such as cattle herding while others did not question their children when they escaped or dropped out of school. The above finding was in agreement with the observation by Muhamad (2015) that parents with higher academic qualifications had more influence on their children's participation and performance. The finding also agreed with Munyalo (2017) finding that there existed a positive relationship between parent's level of education and the student's participation in education as parents with higher levels of education appreciated the importance of their children's education and hence, were able to support their children to enroll and stay in school since they had better chances of getting opportunities to earn income, enabling them to pay school fees.

The correlation analysis as revealed in Table 4.26 demonstrated that the correlation between parental level of education and students' participation in learning activities was not only positive and strong, but also significant. The regression analysis shown in Table 4.27 further affirmed that students' academic participation in public day secondary schools in Makueni County was positively and significantly influenced by parental level of education. This led to the rejection of the null hypothesis that parental level of education did not significantly influence students' academic participation in public day secondary schools in Makueni County. An inference was thus made that parental level of education significantly influenced students' academic participation in public day

secondary schools in Makueni County. These findings were consistent with the assertion by Onyedikachim and Ezekiel-Hart (2021) that parents' educational achievements were highly related with students' participation in learning in terms of school attendance and completion as well. Educated parents always had the right attitude towards education and provided the necessary learning materials, support, motivation and guidance that their children needed to stay focused in their studies. The findings also agreed with the finding by Muhammad (2015) that parents with high level of education to a greater extent influenced on their children's participation in school as they showed more interest and care in their children's academic attainments. Nonetheless, the finding contradicted the finding by Amuda and Domiya (2016) that parents' level of education was not a significant predictor of students' participation in education.

5.6 Home Environment and Students' Academic Participation in Public Day Secondary Schools in Makueni County

The firth objective of the study was to establish the influence of home environment on students' academic participation in public day secondary schools in Makueni County. Based on the responses of the principals and Form 4 class teachers in Table 4.28 and 4.29, the study noted that on average, most of the students in public day secondary schools in Makueni County were from a moderately favourable home environment. While the responses of the principals and Form 4 class teachers demonstrated that most students in these schools were from stable and functional families, whether most of these students lived with both parents or had parents/guardians who did not use alcohol and drugs could not be ascertained with certainty. Considering students home environment in terms of family structure, family stability/functionality and exposure to alcohol and drug use when assessing their academic participation in terms of enrollment, regular class attendance and completion of studies was deemed crucial by both the principals and class teachers as revealed in Figure 4.10.

The above findings resonated with the observation by Mwaniki (2016) that the type of family from where a student came from affected drop out cases citing psychological instability and lack of concentration in school among students from single parent

families, lack of moral support and parental care by orphaned students, lack of self-esteem and inability to cope in school by students from grandparents' families and lack of role models and motivation by students from broken families. The study argued that students from grandparents' families lacked parental care and support while orphan students were frequently sent home for fee and were most absent. The study findings also agreed with Nguthari (2013) observation that drug abuse by parents adversely affected students' participation in school as majority of learners took up the responsibilities of the drunken parents at a very tender age as their parents suffered from hangovers due to drugs. The students also overworked in the evening and were tired, fatigued from work assigned by the drug and substance abusing parents, condition that negatively impacted their performance and in worst case scenario, their completion of studies.

From the correlation results presented in Table 4.30, it was inferred that home environment was positively, strongly and significantly correlated with students' participation in public day secondary schools in Makueni County. The regression estimates in Table 4.31 also confirmed that home environment had a positive significant influence on students' participation in these schools implying that creating a favourable home environment would enhance students' participation in public day secondary schools in Makueni County. Thus, the null hypothesis that home environment had no statistically significant influence on students' academic participation in public day secondary schools in Makueni County was rejected. It was therefore inferred that home environment had a statistically significant influence on students' academic participation in public day secondary schools in Makueni County. The above findings agreed with the argument by Khan et al. (2019) that, positive home environment was important for students' full participation in education. The findings also agreed with the assertion by Muhamad et al. (2020) that children raised in a loving, caring, secure, consistent and stable home environment had greater probability of developing well socially, psychologically, physically, emotionally and morally which enhanced their full participation in education.

CHAPTER SIX

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter presents the conclusions made in line with the study objectives. The recommendations for practice and policy are also provided based on the study findings. Suggestions for further areas of research are also highlighted in this chapter.

6.2 Conclusions

Based on the study findings, the study concluded that parents' ability to pay user charges positively and significantly influenced students' academic participation in the public day secondary schools in Makueni County.

It was also concluded that parental involvement in students' learning activities had a positive significant influence on students' academic participation in the public day secondary schools in Makueni County.

The study concluded that home-school distance negatively but significantly influenced students' academic participation in the public day secondary schools in Makueni County. Another conclusion made in this study was that parental level of education positively and significantly influenced students' academic participation in the public day secondary schools in Makueni County.

The study also concluded that home environment had a positive and significant influence on students' academic participation in the public day secondary schools in Makueni County.

Finally, it is concluded that family- based determinants considered in this study significantly influenced students' academic participation in public day secondary schools in Makueni County.

6.3 Recommendations

Various recommendations to different stakeholders in the day secondary education were made in line with the study findings.

6.3.1 Parents' Ability to Pay User Charges and Students' Academic Participation in Public Day Secondary Schools in Makueni County

The study recommends that:-

i. The government through the Ministry of Education should continuously review the FDSE policy to support increased budgetary allocations so that FDSE covers some of the user charges imposed by school heads such as lunch, remedial, uniform and development fees.

ii. The government through the Ministry of Education should in the long term pursue the abolishment of all the user charges imposed in public day secondary schools to enable the participation of students from poor background in academic activities.

iii. The government through the Ministry of Education working with development partners and willing well-wishers, should boost the coverage of scholarships and bursaries schemes so that needy students can adequately participate in academic activities.

iv. The government through the Ministry of Education can also implement low-cost feeding programmes and provide school uniforms for students in these schools to minimize the cases where students miss school due to lunch and uniform school fees arrears.

v. The government through the Ministry of Interior and National Coordination should instruct area chiefs to gather and provide information on needy students to the Sub County and CDF officers for consideration for bursaries. This will help reduce cases of school drop outs.

vi. School principals should allow the payment of user charges in installments and where possible, in-kind payments and instead of them frequently sending students home to collect school fees, they could contact parents/guardians for them to visit school and negotiate on fees payment pledges.

vii. Where possible, school principals can assist very needy students to get scholarships and also set up welfare kitties in schools.

6.3.2 Parental Involvement in Students' Learning Activities and Students' Academic Participation in Public Day Secondary Schools in Makueni County

The study recommends that: -

i. School principals working with teachers and Boards of Management should organize more frequent academic clinics and PTA meetings where parents/guardians can not only enquire and track their children's learning progress, but also be sensitized on the need for their children's education and importance of actively participating in their children's learning activities.
ii. School principals and teachers should emphasize and cultivate a strong culture where parents/guardians take personal initiative to visit or contact schools to make follow up on their children's learning progress without waiting for the official meetings organized by the school.
iii. The government through the Ministry of Education, working together with school principals, teachers and local administrations such as area chiefs, should carry out sensitization campaigns, for instance, through public barazas, to enlighten parents/guardians on the need for supporting their children's education by participating in their children's learning activities.

6.3.3 Home-School Distance and Students' Academic Participation in Public Day Secondary Schools in Makueni County

It is recommended that: -

i. The government through the Ministry of Education should invest in infrastructural development in the education sector by constructing more new public day secondary schools in strategic places near communities and also expanding the facilities in the existing schools to accommodate more students.
ii. The government through the Ministry of Education working together with other stakeholders such as community members should prioritize the construction and

expansion of boarding facilities in schools in order to reduce the high number of students covering long distances to and from school.

iii. School principals should ensure that schools have active and well-staffed guidance and counseling departments to sensitize students on the need to not fall in to traps that threaten their education such as indulging in drugs and substance abuse and indiscipline acts along the way to and from school.

iv. School principals, teachers and guidance and counseling departments should sensitize girls on how to identify and avoid sexual predators along the way so as to prevent unwanted teenage pregnancies that disrupt their regular school attendance and completion of studies.

v. School principals, teachers and guidance and counseling departments should also collaborate with local administrators such as area chiefs to sensitize the community members on the need for looking out for students' safety to and from school.

6.3.4 Parental Level of Education and Students' Academic Participation in Public Day Secondary Schools in Makueni County

The study recommended that: -

i. The government through the Ministry of Education should establish more adult education centers across the educational zones in Makueni County to enable parents to enroll and improve their education level besides creating awareness of how parents can assist their school-going children.

ii. School principals and teachers should hold regular parents' meetings and train them on the roles they are required to play to facilitate their children's learning.

6.3.5 Home Environment and Students' Academic Participation in Public Day Secondary Schools in Makueni County

The study recommends that: -

i. Parents/guardians of public day secondary schools should strive to create favourable home environment where their children can learn without disruptions

by for instance, avoiding alcohol, drugs and substance abuse, solving conflicts in an amicable way and maintain family stability.

ii. During PTA meetings and other school events, school principals, teachers and Boards of Management should sensitize parents/guardians on the need for creating favourable home environments so that their children's learning is not disrupted and they can fully participate in school activities.

iii. Through meaningful interactions with students, class teachers should be keen to identify cases of students from troubled families/homes and refer them to the guidance and counseling departments for help on how to cope with difficult home environments and the need to stay focused on the their studies.

6.4 Suggestions for Further Areas of Study

i. The study recommends the replication of this study to other counties in Kenya and also private schools for comparison purposes.

ii. Studies that consider other family-based determinants likely to influence students' academic participation in public day secondary schools should be conducted.

iii. The study suggests that a study that takes in to account family-based factors alongside other factors such as school-based factors in the same context can be pursued.

iv. Studies that test the intervening effects of various variables on the relationship between family-based factors and students' participation in public day secondary schools in different counties in Kenya can also be undertaken.

REFERENCES

Abutabenjeh, S., & Jaradat, R. (2018). Clarification of research design, research methods, and research methodology: A guide for public administration researchers and practitioners. *Teaching Public Administration, 36*(3), 237-258.

Adefunke, S. (2015). Truancy among public secondary school students: implication for counseling. *Journal of Emerging Trends in Education Research and Policy, 6(*7), 331-338.

Akyeampong, K. (2009). Revisiting free compulsory university basic education (FCUBE) in Ghana. *Comparative Education, 45*(2), 175-195.

Akyeampong, K., Delprato, M., Mindano, G., Lewin, K., & Chimombo, J. (2018). The Efficiency of Secondary Education in Sub-Saharan Africa, EESSA Project: The case of Malawi. *University of Sussex, Center for International Education.*

Amuda, B.and Domiya,G.(2016). Parents' level of education as predictors of academic performance of NCE students of college of education in the North-Eastern states of Nigeria. *Journal of Humanities and Social Science, 21*(11), 41-47.

Amunga, J. and Ongigi, B. (2016). Effect of user charges on access to basic education in Kenya. *International Journal of Advanced Engineering Research and Science, 3*(3), 1-15.

Apakoreng, C., Munyua, J. K., & Atoni, R. (2021). Effect of home-based factors on girls' participation in education in public secondary schools in Pokot Central Sub-County, Kenya. *The International Journal of Humanities & Social Studies, 9*(8), 98-108.

Aturupane, H. (2017). Public investment in education: Benefits, challenges and opportunities. *Decentralization and Development of Sri Lanka within a Unitary State*, 179-201.

Baliyan, S. P., & Khama, D. (2020). How distance to school and study hours after school influence students' performance in Mathematics and English: A comparative analysis. *Journal of Education and E-learning Research, 7*(2), 209-217.

Baran, M. L. (2022). Mixed methods research design. In *Research anthology on innovative research methodologies and utilization across multiple disciplines* (pp. 312-333). IGI Global.

Bomett, E. J. (2019). Dynamic of gross enrolment rates: Access and equity of subsidized secondary education in Kenya. *International Journal of Research and Innovation in Social Science, 3*(2), 349-352.

Booker, Q. S., Austin, J. D., & Balasubramanian, B. A. (2021). Survey strategies to increase participant response rates in primary care research studies. *Family Practice, 38*(5), 699-702.

Boonk, L., Gijselaers, H. J., Ritzen, H., & Brand-Gruwel, S. (2018). A review of the relationship between parental involvement indicators and academic achievement. *Educational Research Review, 24*, 10-30.

Borges, L. C., & Revez, J. (2019). Pragmatic paradigm in information science research: A literature review. *Qualitative and Quantitative Methods in Libraries*, *8*(2), 179-188.

Bunijevac, M. (2017). Parental involvement as an important factor for successful education. *Center for Educational Policy Studies Journal, 7*(3), 137-153.

Chansa-Kabali, T. (2016). Parental Involvement in Early Schooling: Exploring Parent and Teacher Views in a Low-income African Context. *British Journal of Education, Society & Behavioural Science*, *14*(4), 1-9.

Chepkoech, L. J. (2018). *Influence of tuition free secondary educational subsidy on students' participation rates in public secondary schools in Kasarani, Nairobi County, Kenya* (Doctoral dissertation, University of Nairobi).

Christensen, E. W. (2020). Educational attainment model for children: Differential impact of parents' education level for children who lived with both parents or not. *Journal of Forensic Economics*, *29*(1), 69-90.

Cohen, L., Manion, L., & Morrison, K. (2017). Validity and reliability. In *Research methods in education* (pp. 245-284). Routledge.

Dejaeghere, J., & Arur, A. A. (2020). Education for all: How schooling is creating social changes for lowered-caste girls in rural India. *Gender & Society*, *34*(6), 951-975.

Dickerson, A., & Mcintosh, A. (2010). *The impact of distance to the nearest Education institution on the post compulsory education participation decision*. Working Paper. Department of economics, university of sheffieldISS1749-8368.http://eprint.whitsrose.ac.uk

Dost, A. C. (2020). The Goals Concealed in the Goal Revealed: Taking Forward Global Education from SDG 4. In *ECONOMICS OF G20: A World Scientific Reference Vol 2: How Developing Countries can Achieve Sustainable Development Goals* (pp. 185-235).

Emmanuel, H., & Andala, H., O. (2021). Parents' involvement in education activities and learners' academic performance in 12YBE schools in Rwanda. *Journal of Education, 4*(7), 55-75.

English, L. M., & Carlsen, A. (2019). Lifelong learning and the Sustainable Development Goals (SDGs): Probing the implications and the effects. *International Review of Education*, *65*, 205-211.

Evans, D., Kremer, M., & Ngatia, M. (2019). *The impact of distributing school uniforms on children education in Kenya*. World Bank Working Paper. Washington, DC: World Bank.

Fife-Schaw, C. (2020). Questionnaire design. *Research Methods in Psychology*, 343-374.

Giro, E. A., & Chui, M. M. (2023). Influence of hidden costs on participation of students in public secondary schools in Mandera West Sub-County, Mandera County, Kenya. *African Journal of Emerging Issues*, *5*(7), 21-33.

Goczek, Ł., Witkowska, E., & Witkowski, B. (2021). How does education quality affect economic growth? *Sustainability*, *13*(11), 6437.

Government of Makueni County (2022). Makueni County Youth Policy, 2020. Accessible at: https://makueni.go.ke/sandbox/site/files/2023/05/Makueni-County-Youth-Policy.pdf

Government of Makueni County (2023). Makueni County Integrated Development Plan 2023-2027. Accessible at: https://repository.kippra.or.ke/bitstream/handle/123456789/4356/Revised-Final-CIDP-2023-27%28Makueni%29%20%281%29.pdf?sequence=1&isAllowed=y

Habib, A., & Mawa, J. (2022). Poor performance in secondary school certificate (SSC) and equivalent examinations in Bangladesh: Trends and issues. *Vietnam Journal of Educational Sciences*, *18*(3), 28-39.

Hartas, D, (2015). Patterns of parental involvement in selected OECD countries: Cross-national analysis of PISA. *European Journal of Educational Research, 4*(4), 185-195.

Hartas, D. (2024). Inequality in parent involvement in children's education during COVID-19. *European Journal of Psychology and Educational Research*, *7*(2), 93-107.

Ismail, N., Kinchin, G., & Edwards, J. A. (2018). Pilot study: Does it really matter? Learning lessons from conducting a pilot study for a qualitative PhD thesis. *International Journal of Social Science Research*, *6*(1), 1-17.

Jane, A., & Benjamin, O. (2016). The Effect of User Charges on Access to Basic Education in Kenya. *International Journal Of Advanced Engineering Research And Science*, *3*(3), 258840.

Jensen, K. L., & Minke, K. M. (2017). Engaging families at the secondary level: An underused resource for student success. *School Community Journal*, *27*(2), 167-191.

Jepnyango, G., & Cheboi, S. T. (2021). Subsidized free day secondary school education program and its influence on girls' school participation in Nandi North Sub-County, Kenya. *European Journal of Education Studies*, *8*(11), 347-355.

Josephson, K., Francis, R., & Jayara, S. (2018). Promoting secondary school retention in Latin America and the Caribbean: Lessons from Mexico and Chile. *Caracas, Venezuela: Development Bank of Latin America*.

Kabiru, D. M., Ngugi, M. N., & Kaboro, P. G. (2018). Influence of school levies on pupils' transition from primary to secondary schools in Nyandarua North Sub-County, Kenya. *Journal of Education and Practices*, *1*(1), 12-12.

Karunakaran, S., Jusoh, M., & Chinna, K. (2019). Impact of family-related factors on students' academic performance: A study conducted in the plantation sector schools in Sri Lanka. *European Journal of Education Studies*, 6(8), 293-300.

Kasai, H. (2019). *Relationship between subsidized secondary education and students participation in public secondary schools in Wajir East Sub-County, Wajir County, Kenya* (Doctoral dissertation, Chuka University).

Kaushik, V., & Walsh, C. A. (2019). Pragmatism as a research paradigm and its implications for social work research. *Social sciences*, *8*(9), 255.

Khan, F., Begum, M., & Imad, M. (2019). Relationship between students' home environment and their academic achievement at secondary school level. *Pakistan Journal of Distance and Online Learning*, *5*(2), 223-234.

Kingori, J. N. (2015). *Influence of hidden costs in education on students' participation in public secondary schools in Kikuyu sub county, Kenya* (Masters dissertation, University of Nairobi).

Kiprop-Marakis, J. (2022). Causes of students' absenteeism in public day secondary schools in Kenya. *East African Journal of Education Studies*, *5*(2), 137-147.

Kurzhals, K., & Kurzhals, K. (2021). Quantitative research: Questionnaire design and data collection. *Resource Recombination in Firms from a Dynamic Capability Perspective*, 177-207.

Li, S., Tang, Y., & Zheng, Y. (2023). How the home learning environment contributes to children's social–emotional competence: A moderated mediation model. *Frontiers in Psychology*, *14*, 1065978.

Liu, F., Li, L., Zhang, Y., Ngo, Q. T., & Iqbal, W. (2021). Role of education in poverty reduction: Macroeconomic and social determinants form developing economies. *Environmental Science and Pollution Research, 28*, 63163-63177.

Lowe, N. K. (2019). What is a pilot study? *Journal of Obstetric, Gynecologic & Neonatal Nursing*, *48*(2), 117-118.

Lumosi, A. B. (2022). Effect of parent funded supplies on students' participation in secondary education in public day secondary schools within Kakamega East Sub-County, Kenya. *International Journal of Educational Science and Research, 12*(1), 237-242.

Maganda, D. (2016). Enhancing learning in Africa through students' collaboration with parents, teachers and peers. *World Journal of Education*, *6*(2), 1-11.

Makyara, E. M., Semali, L., Lyamtane, E. C., & Ogoti, E. (2019). Exploring parental involvement in the education of their children to combat truancy among pastoralist community secondary schools of North Eastern Tanzania. *International Journal of Innovative Research & Development, 8*(7), 293-304.

Malik, A., Kohli, S., & Kumar, A. (2013). Applying the constructs of home environment: Implications for developing self-esteem amongst adolescents. *Indian Journal of Health and Wellbeing, 4*(9), 1674.

Mantovani, D., Gasperoni, G., & Santangelo, F. (2022). Home-school distance among native and immigrant-origin lower secondary students in Urban Northern Italy. *Journal of Ethnic and Migration Studies*, *48*(10), 2369-2395.

Marique, A, F., Dujardin, S.,Teller, J., & Reiter, S. (2022). School commuting: Effects of school proximity on students' performance in Mathematics in Philippines. *Open Research Journal of Social Sciences, 10*, 365-376.

Marrietah, M. W. (2015). *Family and school based determinants of access and participation in public day secondary schools in Matungulu Sub-County, Machakos County, Kenya* (Doctoral dissertation, KENYATTA UNIVERSITY).

McKim, C. A. (2017). The value of mixed methods research: A mixed methods study. *Journal of Mixed Methods Research*, *11*(2), 202-222.

Mhiliwa, J. A. (2015). *The effects of school distance on students' academic performance: A case of community secondary schools in Makambako Town Council* (Doctoral dissertation, The Open University of Tanzania).

Milcah, M., Kiprop, D., & Too, F. (2018). Impact of non-payment of school levies by parents on secondary school programmes and projects in Ainabkoi Sub-County, Uasin-Gishu County, Kenya. *British Journal of Education*, *6*(7), 108-122.

Monday, T. U. (2020). Impacts of interview as research instrument of data collection in social sciences. *Journal of Digital Art & Humanities, 1*(1), 15-24.

Morgan, C., Pestrosino, A., & Fronius, T. (2012). *A systematic review of the evidence of the impact of eliminating school user fees in low income developing countries*. London: Epicenter, Social Science, Research Unit, Institute of Education, University of London.

Muhammad, I., Chao, L., Sohaib, K., & Abu, B. (2020). Effects of home environment on students' academic achievements at higher level. *Iikogretim Online-Elementary Online, 1*9(3), 3931-3947.

Mukonyi, P. W., & Onkware, K. (2020). Strategies used to improve participation of students in secondary school education in Kakamega County, Kenya. *International Journal of Education and Research, 8*(5), 1-18.

Munyalo, M. (2017). *Parent related factors influencing learners' academic performance in Kenya certificate of secondary education in Igembe North Sub County, Meru, Kenya* (Masters dissertation, University of Nairobi).

Mutegi, R. G. (2015). *Influence of unit cost of education on students enrollment rates in public secondary schools in Tharaka south sub county, Kenya* (Masters dissertation, University of Nairobi).

Muthoka, E. M. (2015). *Institutional factors influencing students' participation in public secondary schools in Mwingi Central Sub-County, Kitui County, Kenya* (Masters dissertation, University of Nairobi).

Muyalo, J. (2017). *Parent Related Factors Influencing Learners' Academic Performance in Kenya Certificate of Secondary Education in Igembe North Sub-county, Meru, Kenya* (Masters dissertation, University of Nairobi).

Mwaniki, I. M. (2017). *Household factors influencing students' participation in education in public secondary schools in Mbeere South Sub-County, Kenya* (Masters dissertation, University of Nairobi).

Mwaniki, K. (2016). Home – based variables influencing enrolment and participation of pupils in rural public primary schools in central division, Narok County, Kenya. *IOSR Journal of Humanities and Social Sciences, 21*(3), 32-39.

Naroş, M. S., & Simionescu, M. (2019). The role of education in ensuring skilled human capital for companies. *Theoretical and Empirical Researches in Urban Management, 14*(1), 75-84.

Ndolo, M. A., Simatwa, E. M., & Ayodo, T. M. (2016). Impact of free secondary education policy on primary to secondary school education in Kenya. A case study of Mbita and Suba Sub-Counties. *Greener Journal of Educational Research, 6*(2), 067-085.

Ng, B. (2023). Conceptualizing Lifelong Learning for K-12 Education. *Journal of Research Initiatives, 7*(2), 9.

Nguthari, J. M. (2013). *Effects of drug abuse by parents on school participation by primary pupils in Abothuguchi Division, Meru County, Kenya* (Doctoral dissertation, University of Nairobi).

Nikitas, A., Wang, J. Y., & Knamiller, C. (2019). Exploring parental perceptions about school travel and walking school buses: A thematic analysis approach. *Transportation Research Part A: Policy and Practice*, *124*, 468-487.

Ntakirutimana, E. (2022). *Influence of educational costs on students' participation rate in public boarding secondary schools in Kicukiro and Ruhango Districts, Rwanda* (Doctoral dissertation, University of Nairobi).

Ogbugo-Ololube, R. (2016). Impact of students' parental background on academic achievement in secondary schools in Obio/Akpor LGA, Rivers State, Nigeria. *International Journal of Scientific Research in Education*, *9*(2), 115-126.

Ogur, B. A. (2014). *Home and school based factors influencing students' participation in public day secondary schools in Nyatike Sub County, Kenya* (Masters dissertation, University of Nairobi).

Okumu, F. O. (2020). Use and abuse of reliability in research: An analysis of postgraduate theses at Catholic University of Eastern Africa, Kenya. *ILIRIA International Review*, *10*(1), 341-359.

Oneya, L., & Onyango, D. (2021). Perception of school stakeholders on the effect of school-home distance on students' academic performance among community secondary schools in Rorya District, Tanzania. *East African Journal of Education and Social Sciences (EAJESS), 2*(1), 76-81.

Onyedikachin, E. N., & Ezekiel-Hart, J. (2021). Educational level of parents on students' academic achievement in secondary schools in Abia State. *African Scholars Journal of Contemporary Education Research (JCER-8), 21*(8), 55-66.

Oranga, J., Obuba, E., Sore, I., & Boinett, F. (2022). Parental involvement in the education of learners with intellectual disabilities in Kenya. *Open Access Library Journal, 9*(4), 1-18.

Paseka, A., & Killus, D. (2022). Home-school partnership in Germany: Expectations, experiences and current challenges. *Encyclopaideia*, *26*(63), 45-56.

Psacharopoulos, G., & Patrinos, H. A. (2018). Returns to investment in education: a decennial review of the global literature. *Education Economics*, *26*(5), 445-458.

Rogers, S. (2016). *Causes of school dropout among girls in mixed day secondary schools in Kachomo subcounty, Budaka district, eastern Uganda* (Bachelor's dissertation, Kampala International University).

ROK (2019). Sessional paper No. 1 2019 on *Policy Framework for Reforming Education and Training for Sustainable Development in Kenya.*

ROK (1972-2006). *Kenya economic survey (Annual series);* Nairobi: Government Printer.

Roksa, J., & Kinsley, P. (2019). The role of family support in facilitating academic success of low-income students. *Research in Higher Education*, *60*, 415-436.

Sabean, N. (2007). *Students walking distance review for Nova Scotia Department of Education.* https://www.ednet.ns.ca/docs/student walking distance.pdf

Saunders, M. N., & Townsend, K. (2016). Reporting and justifying the number of interview participants in organization and workplace research. *British Journal of Management*, *27*(4), 836-852.

Schulz, J. W. (1971). Investing in human capital: The role of education and of research. *American Journal of Agricultural Economics*, *53*(4), 692-693.

Shaked, H., Glanz, J., & Gross, Z. (2018). Gender differences in instructional leadership: How male and female principals perform their instructional leadership role. *School Leadership & Management*, *38*(4), 417-434.

Sherpa, D. (2022). Impact of distance on learning outcomes: A case study of community school in Dhankuta District. *The Geographical Journal of Nepal*, *15*, 131-143.

Smith, W.C., Voigt, A. & Zhang, Y. (Eds.) (2021). *Barriers to secondary education in the Asia Pacific Region: A scoping review of four countries.* Final report of the Scotland Funding Council GCRF project Universal Secondary Education in the Asia Pacific Region. Edinburgh, UK: University of Edinburgh.

Taherdoost, H. (2021). Data collection methods and tools for research; a step-by-step guide to choose data collection technique for academic and business research projects. *International Journal of Academic Research in Management (IJARM)*, *10*(1), 10-38.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, *2*, 53.

Tsisiga, M. J. (2018). *Relationship between subsidized school funding and student participation among public secondary schools in Kenya* (Doctoral dissertation, MMUST).

UNESCO (2009). *EFA Global monitoring report*; *overcoming inequality: Why governance matter*. Paris: UNESCO.

UNICEF (2015). *Improving quality education and children's learning outcomes*. Accessible at: https://www.unicef.org/esa/media/1796/file/UNICEF-ACER-2016-Quality-of-Education-ESAR-Executive-Summary.pdf

UNICEF (2017*). Guyana out of school children study; South America*. UNESCO. Washington DC: Center for American Progress.

UNICEF, & African Union Commission. (2021). Transforming education in Africa: An evidence based overview and recommendations for long-term improvements. Accessible at: https://www.unicef.org/media/106686/file/Transforming%20Education%20in%20Africa.pdf

UNICEF. (2021). Secondary education. Accessed on July 29, 2024 from https://data.unicef.org/topic/education/secondary-education/.

Utami, A. Y. (2022). The role of parental involvement in student academic outcomes. *Journal of Education Review Provision*, 2(1), 17-21.

Uwera, L. (2017). Home environment and students' academic performance in primary schools of Gicumbi District, Rwanda. *Journal of Research Innovation and Implications in Education*, *7*(1), 1-10.

Vebrianto, R., Thahir, M., Putriani, Z., Mahartika, I., & Ilhami, A. (2020). Mixed methods research: Trends and issues in research methodology. *Bedelau: Journal of Education and Learning*, *1*(2), 63-73.

Wainaina, W. V. (2016). *Effect of user charges on participation in education among students in public secondary schools in Kitui County, Kenya*, (Doctoral dissertation, KENYATTA UNIVERSITY).

Wakwoma, B. (2021). *The impact of child labour on boys' and girls' participation in public day secondary school education in Kiminini Sub-County, Transnzoia County, Kenya* (Doctoral dissertation, University of Nairobi).

Wambui, W. V. (2016). *Effect of user charges on participation in education among students in public secondary schools in Kitui County, Kenya* (Masters dissertation, KENYATTA UNIVERSITY).

Wanjala, (2017). Impact of subsidized fees on students' access to quality education in public secondary schools in Wajir County, Kenya. *International Journal of Education and Research, 5*(7), 247-262.

Wati, A. P., & Sahid, S. (2022). Factors Influencing Parents' Awareness of Children' Education Investment: A Systematic Review. *Sustainability, 14*(14), 8326.

Winthrop, R., & Kwauk, C. (2013). *What works for' education: Evidence for the worlds' best investment.* Washington D.C.: Brookings Institute Press.

World Bank (2009). *Abolishing school fees in Africa: Lessons from Ethiopia, Ghana, Kenya, Malawi and Mozambique.* Washington D.C.: World Bank.

Yakubu, I., & Afolabi, M. J. (2020). Impact of private cost of education on students' participation in public secondary schools in Kaduna South Local Government, Kaduna State. *International Journal of Family and Consumer Sciences, 9,* 32-41.

Yulianti, K., Denessen, E. J. P. G., & Droop, W. (2019). Indonesian parents' involvement in their children's education: A study in elementary schools in urban and rural Java, Indonesia. *School Community Journal, 29*(1), 253-278.

Zickafoose, A., Ilesanmi, O., Diaz-Manrique, M., Adeyemi, A. E., Walumbe, B., Strong, R., & Dooley, K. (2024). Barriers and challenges affecting quality education (Sustainable Development Goal# 4) in Sub-Saharan Africa by 2030. *Sustainability, 16*(7), 2657.

Ziegenfuss, J. Y., Easterday, C. A., Dinh, J. M., JaKa, M. M., Kottke, T. E., & Canterbury, M. (2021). *Impact of demographic survey questions on response rate and measurement: A randomized experiment. Survey Practice, 14*(1), 1-11.

APPENDICES

Appendix i: Letter of Introduction

Dear Respondent,

RE: DATA COLLECTION FOR ACADEMIC RESEARCH

My name is Jacinta Wayua Nzina a PhD student at South Eastern Kenya University. To be awarded my doctorate degree, I am required to undertake an independent research. On this basis, I seek to carry out a study on "**Family-Based Determinants Influencing Students' Academic Participation in Public Day Secondary Schools in Makueni County, Kenya"**. Being a key stakeholder in the secondary education sector, you have been chosen to take part in this study by responding to the questions presented to you either in the form of a questionnaire or interviews. The exercise will only take at most 30 minutes of your precious time. Participation in this exercise is on a voluntary basis and your identity will be protected by allowing you to respond anonymously to the questions asked. All the information that shall be gathered will be used solely for this academic assignment and even though no compensation shall be given to you, the recommendations of this study shall help improve students' academic participation in public day secondary schools in this county. At that time when a request is made, you will be furnished with a copy of the final report.

Your support and cooperation shall be greatly acknowledged.

Yours Faithfully,

Jacinta Wayua Nzina

Appendix ii: Questionnaire for the Principals

Introduction

This questionnaire has been designed to help me collect data on **"Family-Based Determinants Influencing Students' Academic Participation in Public Day Secondary Schools in Makueni County, Kenya".** You are kindly requested to answer the following research questions precisely and honestly. The data collected will be confidential and will only be used for research purpose.

Instructions

- Kindly do not write your name, the name of your school or place of work anywhere on this questionnaire.
- Put a tick where appropriate to indicate your opinion
- Please answer all the questions in this questionnaire

Section I: Demographic Information

1. Indicate your gender?

Male ☐ Female ☐

2. Indicate your highest academic qualification?

Diploma ☐ Bachelor's Degree ☐ Masters ☐ PhD ☐

3. How many years have you been a principal?

Less than 3 years ☐

4- 6years ☐

7-9years ☐

Over 10 years ☐

4. Indicate the approximate length of stay in this school?

Less than 3 years ☐

4-6 years ☐

7-9 years ☐

Over 10 years ☐

5. Indicate the category of your school

Pure day school ☐

Day/Boarding ☐

Section II

Influence of parents' ability to pay user charges on students' participation in public day secondary schools in Makueni County

6. Approximately how much of the following user charges/school levies does the school charge per year

School levy (per year)	**Amount (KShs.)**
School uniform fee	
Lunch fee	
Development fee	
Remedial fee	
Any other, specify…….	

7. Do you have cases of school dropouts due to fees problems? Yes ☐ No ☐

If yes, what is the number of drop outs on average in a year? ……..

8. Indicate your opinion concerning the statements below by ticking only the appropriate answer with regard to payment of school levies. Key: 1) Strongly Disagree (SD) 2) Disagree(D) 3) Neutral(N) 4) Agree(A) 5) Strongly Agree (SA)

Statement	**SD**	**D**	**N**	**A**	**SA**
Most Parents pay School uniform fee in time in this school					
Most Parents pay Lunch contribution fee in time in this school					
Most Parents pay Development fee in time in this school					
Most Parents pay Remedial fee in time in this school					

B) Influence of parental involvement on students' participation in public day secondary schools in Makueni Count

9. How often do you meet with parents to discuss school matters concerning students' learning activities?

Every term ☐ once a year ☐ when there is need ☐

10. On average, what is the percentage of parents who attend school meetings? Indicate the level of attendance in the table below

Meeting	**% of parents' attendance**
PTA meeting	
Academic clinics	
Consultations with teachers	

11. Show the extent to which you agree with the statements below by ticking the appropriate answer with regard to parental involvement in students' learning activities, Key; 1) Strongly Disagree (SD) 2) Disagree (D) 3) Neutral (N) 4) Agree (A) 5) Strongly Agree (SA)

Statement	**SD**	**D**	**N**	**A**	**SA**
Some Parents visit school frequently to know about the progress of their children in learning activities					
Most Parents attend PTA meetings					
Most Parents consult teachers on matters concerning their children's education					
Most Parents attend academic clinics					

C) Influence of home-school distance on students' participation in public day secondary schools in Makueni County

12. How many kilometers is the school from the nearest town? .....

13. Approximately how many kilometers does the furthest student cover to reach school?

Less than 1km ☐ 1-3km ☐ more than 3km ☐

14. What means of transport do students use to come to school? Indicate in the table below

Means of transport	**Percentage of students who use the means**
Walking	
Bicycles	
Motorbikes	
Matatus	
Any other, specify	

15. Show the extent to which you agree with the statements below by ticking the most appropriate answer with regard to home- school distance, Key; 1) Strongly Disagree (SD) 2) Disagree (D) 3) Neutral (N) 4) Agree (A) 5) Strongly Agree (SA)

Statement	**SD**	**D**	**N**	**A**	**SA**
Most students in this school walk long distances to school					
Walking long distances subject student tiredness and fatigue					
Walking long distances subject students to insecurity					
Due to long distances, some students arrive at school late					
Use of motorbikes/ matatus subject students to harassments					
The movement of students to/from school encourage drug and substance abuse in day secondary schools					

D) Influence of parental level of education on students' participation in public day secondary schools in Makueni County

16. Indicate the educational level of majority of the parents in your school.

Primary level ☐ secondary level ☐ tertiary level ☐

17. Indicate the extent in which you agree with the statements below by ticking only the appropriate answer with regard to parental level of education, key; 1) Strongly Disagree (SD) 2) Disagree (D) 3) Neutral (N) 4) Agree (A) 5) Strongly Agree (SA)

Statement	**SD**	**D**	**N**	**A**	**SA**
Most parents in this school have formal education					
Most parents in this school have the intellectual capacity to support their children to be comfortable and to adjust to their learning development					
Most parents in this school understand better the proper educational resources/materials needed by their children					
Most parents in this school have the basic knowledge and skills needed in guiding and counseling their children in their learning activities					

E) Influence of home environment on students' participation in public day secondary schools in Makueni County

18. Show the extent to which you agree with the statements below by ticking the appropriate answer with regard to students' home environment, key; 1) Strongly Disagree (SD) 2) Disagree (D) 3) Neutral (N) 4) Agree (A) 5) Strongly Agree (SA)

Statement	**SD**	**D**	**N**	**A**	**SA**
Most students in this school are from stable and functional families					
Most students in this school live with both parents					
Most students in this school have parents/guardians who do not use alcohol and drugs					

F) Family-based determinants and Students' participation in public day secondary schools

19. Show the extent to which you agree with the statements below by ticking the appropriate answer with regard to family – based determinants, key; 1) Strongly Disagree (SD) 2) Disagree (D) 3) Neutral (N) 4) Agree (A) 5) Strongly Agree (SA)

Statement	**SD**	**D**	**N**	**A**	**SA**
Students enroll in this school to almost maximum capacity					
Most students attend classes regularly					
Most students complete their studies in time in this school					

20. Show the extent to which you think the family-based factors below influence students'; enrolment, daily attendance and completion in public day secondary schools by ticking the appropriate answer, key; 1) not at all(N) 2) to some extent (SE)3) to a great extent (GE)

Family-based determinant/ Students' participation	**Enrolment**			**Daily Attendance**			**Completion**		
	1	2	3	1	2	3	1	2	3
Ability to pay school levies									
Parental involvement									
Home-school distance									
Parental level of education									
Home-environment									
Any other, please specify									

21. What measures does your school take in order to improve students'; enrolment, daily attendance and completion? ----------

22. In your own opinion, what do you think the government should do to ensure 100% completion in public day secondary schools? _____

Thank you and God bless you

Appendix iii: Questionnaire for Form 4 Class Teachers

Introduction

This questionnaire has been designed to help me collect data on **"Family-Based Determinants Influencing Students' Academic Participation in Public Day Secondary Schools in Makueni County, Kenya".** You are kindly requested to answer the following research questions precisely and honestly. The data collected will be confidential and will only be used for research purpose.

Instructions

- Kindly do not write your name or the name of your school anywhere in this questionnaire
- You are required to tick only one choice which you think is the most appropriate where applicable or provide the required information on the spaces provided.
- Please answer all the questions in this questionnaire

Section 1: Demographic Information

1. Indicate your gender;

Male ☐ Female ☐

2. Indicate your highest professional qualification?

Diploma ☐ Bachelor's Degree ☐ Masters ☐ PhD ☐

3. How many years have been in this school?

Less than 3 years ☐ 4- 6 years ☐

7- 9 years ☐ Over 10 years ☐

4. Category of your school;

Pure Day ☐ Day/Boarding ☐

Section II

A) Influence of parents' ability to pay user charges on students' participation in public day secondary schools in Makueni County

5. Do you have cases of school dropouts due to fees problems?

Yes ☐ No ☐

If yes, what is the number of drop outs on average in a year? .....

6. Indicate your opinion about the following statements by ticking only the most appropriate answer with regard to payment of school levies. Key: 1) Strongly Disagree (SD) 2) Disagree(D) 3) Neutral(N) 4) Agree(A) 5) Strongly Agree (SA)

Statement	**SD**	**D**	**N**	**A**	**SA**
Most Parents pay School uniform fee in time in this school					
Most Parents pay Lunch contribution fee in time in this school					
Most Parents pay Development fee in time in this school					
Most Parents pay Remedial fee in time in this school					

B) Influence of parental involvement on students' participation in public day secondary schools in Makueni County

7. How often do you meet with parents to discuss school matters concerning students' learning activities?

Every term ☐ once a year ☐ when there is need ☐

8. On average, what is the percentage of parents who attend school meetings? Indicate the level of attendance in the table below

Meeting	**% of parents' attendance**
PTA meeting	
Academic clinics	
Consultations with teachers	

9. Indicate the extent to which you agree with the statements below by ticking the appropriate answer with regard to parental involvement in students' learning activities, Key; 1) Strongly Disagree (SD) 2) Disagree (D) 3) Neutral (N) 4) Agree (A) 5) Strongly Agree (SA)

Statement	**SD**	**D**	**N**	**A**	**SA**
Some Parents visit school frequently to know about the progress of their children in learning activities					
Most Parents attend PTA meetings					
Most Parents consult teachers on matters concerning their children's education					
Most Parents attend academic clinics					

C) Influence of home-school distance on students' participation public day secondary schools in Makueni County

10. How many kilometers is the school from the nearest town? .....

11. Approximately how many kilometers does the furthest student cover to reach school?

Less than 1km ☐ 1-3km ☐ more than 3km ☐

12. What means of transport do students use to come to school? Indicate in the table below

Means of transport	**Percentage of students who use the means**
Walking	
Bicycles	
Motorbikes	
Matatus	
Any other, specify…….	

13. Show the extent to which you agree with the statements below by ticking the most appropriate answer with regard to home- school distance, Key; 1) Strongly Disagree (SD) 2) Disagree (D) 3) Neutral (N) 4) Agree (A) 5) Strongly Agree (SA)

Statement	**SD**	**D**	**N**	**A**	**SA**
Most students in this school walk long distances to school					
Walking long distances subject students to tiredness and fatigue					
walking long distances subject students to insecurity					
Due to long distances, some students arrive at school late					
Use of motorbikes/ matatus subject students to harassments					
The movement of students to/from school encourage drug and substance abuse in day secondary schools					

D) Influence of parental level of education on students' participation in public day secondary schools in Makueni County

14. Indicate the educational level of majority of the parents in your school.

Primary level ☐ secondary level ☐ tertiary level ☐

15. Show the extent to which you agree with the statements below by ticking the most appropriate answer with regard to parental level of education, key; 1) Strongly Disagree (SD) 2) Disagree (D) 3) Neutral (N) 4) Agree (A) 5) Strongly Agree (SA)

Statement	**SD**	**D**	**N**	**A**	**SA**
Most parents in this school have formal education					
Most parents in this school have the intellectual capacity to support their children to be comfortable and to adjust to their learning development					
Most parents in this school understand better the proper educational resources/materials needed by their children					
Most parents in this school have the basic knowledge and skills needed in guiding and counseling their children in their learning activities					

E) Influence of home environment on students' participation in public day secondary schools in Makueni County

16. Indicate the extent to which you agree with the statements below by ticking the most appropriate answer with regard to students' home environment, key; 1) Strongly Disagree (SD) 2) Disagree (D) 3) Neutral (N) 4) Agree (A) 5) Strongly Agree (SA)

Statement	**SD**	**D**	**N**	**A**	**SA**
Most students in this school are from stable and functional families					
Most students in this school live with both parents					
Most students in this school have parents/guardians who do not use alcohol and drugs					

F) Family based determinants and Students' participation in public day secondary schools

17. Show the extent to which you agree with the statements below by ticking the most appropriate answer with regard to family – based determinants, key; 1) Strongly Disagree (SD) 2) Disagree (D) 3) Neutral (N) 4) Agree (A) 5) Strongly Agree (SA)

Statement	**SD**	**D**	**N**	**A**	**SA**
Students enroll in this school to almost maximum capacity					
Most students attend classes regularly					
Most students complete their studies in time in this school					

18. In your own opinion, Indicate the extent to which you think the following family-based factors influence students'; enrolment, daily attendance and completion in public day secondary schools by ticking the appropriate answer, key; 1) not at all(N) 2) to some extent (SE)3) to a great extent (GE)

Family-based determinant/ Students' participation	**Enrolment**			**Daily Attendance**			**Completion**		
	1	2	3	1	2	3	1	2	3
Ability to pay school levies									
Parental involvement									
Home-school distance									
Parental level of education									
Home-environment									
Any other, please specify									

19. What measures does your school put in place to improve students' participation? ----------

20. In your own opinion, what do you think the government should do to ensure 100% completion in public day secondary schools? .....

Thank you and God bless you

Appendix iv: Interview Schedule for PA Chairpersons

1. Gender _____
2. How long have you been PA chairperson? _____
3. What kind of user charges do parents pay for their children to remain in school? _____
4. To what extent do the parents' ability to pay such user charges influence students' participation? _____
5. How often do you hold PTA meetings? How do parents respond? _____
6. How often do you hold academic clinics? How do parents respond? _____
7. Do parents make consultations about their children's' progress?
8. Approximate the distance in km covered by the majority of the students to reach school. How safe are the students on the way?
9. In your own opinion do you think home – school distance influence students? Enrolments_____, attendance _____ and completion_____
10. What category of educational level are the majority of the parent?
11. In your own opinion do you think parents educational level influence students;
12. Enrolment_____, Attendance _____ Completion _____

Thank you and God bless you

Appendix v: Interview Schedule for the Area Chiefs

1. Gender_____

2. For how many years have been in this community? _____

3. From your own experience, does the public day secondary school around this area sent students home to collect school fees? _____

If yes, what frequency per term? e.g., once, twice_____

What are the reasons? (Probing) Parents unable to pay_____

Schools charge a lot of money_____

4. Indicate your opinion on the extent to which the following user charges influence students' participation in public day secondary schools?

User charge	**High**	**Some**	**Low**
School uniform fee			
School lunch contributions			
Development fee			

5. Are there some learners in this community who leave or drop out of school before completing form 4 due to?

Lack of fees_____, lack of parental involvement_____

Low parents' level of education_____

6. Do parents of this area participate in school activities?

7. Approximately what range of distance in km do students travel to reach school?_____

Are the students safe on the way? _____

What is the common means of transport? _____

8. Does the parents' level of education affect: enrolment_____ attendance_____completion_____

9. As a leader in the community, what do you think should be done to improve students'; enrolment, daily attendance and completion in public day secondary schools in this area? _____

10. What strategies do you think should be put in place to ensure no drop outs in public day secondary schools? _____

Thank you for your co-operation.

Appendix vi: Documentary Analysis Schedule

Attendance registers

a) Enrolment, Attendance and Completion

Classes (form)	**Total Number of Students Enrolled**	**Students' Regular Attendance**	**Number of Students who terminated School**	**Reason for termination**
Form One, 2019				
Form Two, 2020/2021				
Form Three, 2021/2022				
Form Four, 2022				

b) Approximate number of students whose school attendance and completion were affected by the following reasons:

Reasons	**School Attendance**		**Completion**	
	Boys	**Girls**	**Boys**	**Girls**
Parents' inability to pay school fees				
Lack of parental involvement				
Long home-school distance				
Low parental education				
Unfavourable home environment				
Alcohol, drugs and substance abuse				
Teenage pregnancies				

Appendix vii: Research Authorization Letter from the University

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: E504/MAI/30003/2020 **DATE:** 30th May 2023

Nzina Jacinta Wayua
Reg. No. E504/MAI/30003/2020
Doctor of Philosophy in Educational Administration and Planning
C/O Dean, School of Education

Dear Nzina

RE: PERMISSION TO PROCEED FOR DATA COLLECTION

This is to acknowledge receipt of your Doctor of Philosophy in Educational, Administration & Planning Proposal document entitled: ***"Family – Based Determinants and Students' Participation in Public Day 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 and Dr. Francis K. Muya. 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 project report writing.

Prof. Elliud Muli
Director, Board of Postgraduate Studies

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

Appendix viii: Research Authorization Letter from the County Commissioner

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/93

18th July, 2023

Jacinta Wayua Nzina
SOUTH EASTERN KENYA UNIVERSITY

RE: RESEARCH AUTHORIZATION

Reference is made to Director General National Commission for Science, Technology and Innovation letter **Ref. NACOSTI/P/23/27454** dated **17th July 2023** on the above underlined subject matter.

You are hereby authorized to undertake research on the topic, "***Family Based Determinants and Students' participation in public in public day secondary schools in Makueni County, Kenya*** for the period ending **17th July 2024.**

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

18 JUL 2023

N. J. KIMUTAI
FOR: COUNTY COMMISSIONER
MAKUENI

Cc:
County Director of Education
MAKUENI COUNTY

All Deputy County Commissioners
MAKUENI COUNTY

Appendix ix: Research Authorization Letter from the County Director of Education Office

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/170

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

18th July, 2023

Jacinta Wayua Nzina
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 **" Family Based Determinants and Students' participation in public day Secondary schools in Makueni County",** for the period ending 17th **July, 2024.**

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

COUNTY DIRECTOR OF EDUCATION
DATE 18/7/2023
P.O. BOX 41-90300
MAKUENI

Dr. Samson Arodi
For County Director of Education
MAKUENI COUNTY

CC:
Director General/ CEO, NACOSTI

SGS

Appendix x: Research Permit from NACOSTI

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **603776**

Date of Issue: **17/July/2023**

RESEARCH LICENSE

This is to Certify that Ms.. JACINTA WAYUA NZINA 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: FAMILY-BASED DETERMINANTS AND STUDENTS' PARTICIPATION IN PUBLIC DAY SECONDARY SCHOOLS IN MAKUENI COUNTY, KENYA for the period ending : 17/July/2024.

License No: **NACOSTI/P/23/27454**

603776

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