WALBERG'S FACTORS AND STUDENTS' ACADEMIC PERFORMANCE IN MADI-OKOLLO DISTRICT SECONDARY SCHOOLS

BY

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A DISSERTATION SUBMITTED TO THE DIRECTORATE OF RESEARCH AND GRADUATE TRAINING IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF EDUCATION IN POLICY, PLANNING AND MANAGEMENT OF KYAMBOGO UNIVERSITY

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DECLARATION

I, Adiga Benard, do hereby declare that this dissertation titled *"*Walberg's Factors and Students' Academic Performance in Madi-Okollo District Secondary Schools*",* is my original work and has never been presented for a degree in any other university.

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Date……...

APPROVAL

We as University Supervisors confirm that the work by Adiga Benard titled "Walberg's Factors and Students' Academic Performance in Madi-Okollo District Secondary Schools*",* was done by the candidate under our supervision.

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Supervisor

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Supervisor

DEDICATION

I dedicate this work to my beloved father late Arima Anthony and mother Bayo Margerate, beloved wife Ajio Perry Brandy and my daughters Vivian, Joan, Maria, Elizabeth, and Angelina for the moral, material, and spiritual support. May the Almighty God bless you.

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LIST OF ABBREVIATIONS/ ACRONYMS

BOG:	Board of Governors
CE:	Classroom Environment
DIS:	District Inspector of Schools
EAEC:	East African Examination Council
ESE:	Elementary and Secondary Education
HE:	Home Environment
NCLB:	No Child Left Behind
PTA:	Parents Teachers Association
QTL:	Quality of Teaching and Learning
SM:	Student Motivation
SOP:	Standard Operating Procedures
UCE:	Uganda Certificate of Education
UNEB:	Uganda National Examinations Board
WIU:	Windle International Uganda

ABSTRACT

The study intended to examine Walberg's Factors and Students' Academic Performance in Madi-Okollo District secondary schools. It specifically aimed at examining the association between Student Motivation (SM), Quality of Teaching and Learning (QTL), Home Environment (HE), Classroom Environment (CE), and Students' Academic Performance (SAP). A Mixed methods Research Approach was adopted with the Quantitative Approach being dominant and a mixed concurrent research design where descriptive, survey, correlation, simple linear regression and Multiple Regression Analysis were used. Self-administered questionnaires and interview guides were used to collect data and a sample of 210 students of senior 3 and 4 selected from 5 government-aided secondary schools and the only private school in the district; the District Inspector of Schools (DIS), 3 members of BOG, 3 PTA members, 3 Headteachers, and 4 Teachers. Descriptive Statistics was used to Analyze data with the aid of SPSS version of statistical package and transcription of participant voices. The findings showed that there existed strong Positive correlation between the four independent variables under study that is Student Motivation, Quality of teaching and learning, Home environment, classroom environment, and Students' Academic Performance with all significance values at ($P < 0.05$). It was Concluded that there was a significant positive Correlation between the four IVs, and Students' Academic Performance. The study recommended for Schools and local government education committees to give awards to the best-performing students, give scholarships to teachers to acquire higher qualifications, and Parents to be in position to encourage their children to read and do their homework at home.

CHAPTER ONE

INTRODUCTION

1.0 Background of the study

The Chapter presents the Background to the Study, Problem Statement, Purpose of the Study, Objectives of the Study, Research Questions, Research Hypotheses, Scope of the Study, Significance of the Study, Conceptual framework, and Definition of terms.

1.1.1 Historical Perspective. Nowadays, education is a principal tool in enlightening the child about cultural values and practices, in making them ready for later specialized and skilled training, which in turn helps them to become flexible persons within their society. It is consequently uncertain that any child may rationally be expected to prosper in life if he is deprived of the chance to flourish in education (Chemerinsky, 2004). According to Plato, a good society needs learned citizens which helps to develop a mature person worthy to rule and to be ruled and also helps human resource advancement, thus the degree of growth of a country depends, to a great extent, upon the education level of that country (Venkataiah, 2010).

Therefore, education has become of great importance in the learning process and since then care had been taken to establish factors that hinder learning over time and how it had been dealt with by educationists and other people who have an interest in education. Since the days of Plato, education developed over time, and part of this development involved assessment which determines the performance of the learners in any education system. As a result, many scholars picked interest in undertaking studies on academic performance for

instance Melvina et.al. (2020), explained academic performance as a quantifiable and noticeable behavior of a learner at a particular time.

Baltes (1993), Mathew (2019), and Murphy (2015) expounded that Plato's academy in 387 BCE had no classes, no homework, no tests, and no credentialing. He held discussions with his more advanced students or other senior members of the academy by posing philosophical problems to resolve and most learnings in the academy were in the form of dialogues, rather than lectures. Therefore, during Plato's time, academic performance was measured in the form of discussions through dialogues, hence, a student who engaged actively in the discussions and dialogues was said to have excelled in academic performance.

In the 7th century, the standardized tests known were administered to Chinese citizens longing for government jobs and such citizens would be made to sit for examinations to determine their understanding of Confucian Philosophy and Poetry. Written exams proved whether one would be able to advance into leadership positions, and barriers were high without wealth or privilege (Syeda & Syeda, 2016) thus measuring academic performance in terms of tests and examinations.

In Europe, the industrial revolution necessitated a movement that enabled school-age farm and factory workers to return to the classroom where they were proficiently tested with the aid of standardized examinations. Then, oral tests were conducted in the American schools in 1845, and Horace Mann an advocate of such tests came up with the idea of introducing written tests which compelled him to consult the committee of the Boston Public School. The

purpose of this was to seek authorization to allow for objective tests to be organized and administered to students to give unbiased results regarding the level and quality of teaching and learning in urban schools (United States. Congress, 1992).

Similarly, during World War I, soldiers wishing to join the US Army were to undergo Army mental tests known as Army Alpha and Beta tests. This was reinforced by the Elementary and Secondary Education (ESE) Act of 1995 and the No Child Left Behind (NCLB) Act of 2001 which encouraged the adoption of standardized assessment by all states and continued the ESE's Act recommendation respectively by demanding States to ensure the slightest ability levels to receive funds from federal States. This implied that during the industrial revolution, the 18th Century American schools, the World War I period, and the years that followed, academic performance was measured in terms of examinations, and oral or written tests.

Before 1980, the British syllabus was used to carry out teaching and learning processes as well as conducting examinations in most subjects in East Africa under the East African Examination Council (EAEC). The EAEC continued to operate until the establishment of the Uganda National Examinations Board (UNEB) in 1983. As an examination body, its purpose was for student accreditation, tracing, and making the right choice for tertiary training and largely for evaluating Students' Academic Performance.

Throughout the last five years, the academic performance of students in Madi-Okollo district which was also measured in terms of examinations had been reported to be poor by the District Inspector of Schools (DIS) since their

performance was below the expected standard in the UCE examinations, especially from schools such as Rhino Camp, Okollo, Ogoko Seed, Ullepi, Offaka, and Rhino Camp High Secondary Schools from 2015-2019.

However, no known study had been done to establish the factors that affect students' Academic Performance thus prompting this study to examine Walberg's factors and Students' Academic Performance in the Secondary Schools of Madi-Okollo District.

1.1.2 Theoretical Perspective. The work attached to Walberg's 1981 model of Educational Productivity assumes that nine factors determine students' academic performance. These nine factors categorized into three included aptitude (ability, development/age, and motivation), instructional (quantity and Quality), and environmental (home environment, classroom environment, Peer group, and television or mass media, Walberg, 1982, 1984, & Fraser et al, 1987). When the above factors are favorable, there would be good students' academic performance, and when not favorable, poor students' academic performance would be expected. This theory was selected because the issues incidentally help in the teaching-learning process by improving student capability, enthusiasm, and awareness. Four of Walberg's factors were selected in this Study with at least one from each category of aptitude, instructional and environmental that is student motivation, quality of teaching and learning, home, and classroom environment because they were manageable within the available resources of the researcher, and the limited time to undertake the study made it difficult to use all the nine variables within a single study thus

the need to examine how the four of Walberg's factors influence students' academic performance in Madi-Okollo district secondary schools.

1.1.3 Conceptual Perspective. The variables of the Study were; Students' academic performance (dependent variable) and Walberg's factors (independent variable) which included variables of Student Motivation (SM), Quality of Teaching and Learning (QTL), Home Environment (HE), and Classroom Environment (CE). To Kapur (2018), academic performance is influenced by factors that included class involvement, class tasks, homework, quizzes, examinations, and other co-curricular activities.

Academic performance also assesses the degree to which schools, educators, and learners have attained their educational goals as well as involves marks gained by a learner in evaluations such as classwork, class test, or assessment (Melvina et.al, 2020). Meanwhile, Students' Academic Performance is Measured as a Student's Examination Performance, Students' GPA, and Class Discussions of the Students (Ahmed et.al. 2013).

Yusuf et.al. (2016) insinuated that academic performance comprises marks attained by students from such assessments as classwork, Class Test, and Mid-term, mock, or end-of-term exams. In this study, students' academic performance was conceptualized as active class involvement, timely completion of class tasks, timely completion of homework assignments, passing tests with good grades, passing exams with good grades, and active Participation in Co-curricular Activities or events such as Debates. Armstrong (2006) suggested that student motivation was concerned with the features that encourage people to perform in some ways. To him, the features were

categorized into three components which included direction, effort, and persistence. Therefore, student motivation was conceptualized in this study as student direction, student effort, and student persistence.

Quality of teaching and learning was associated with the awareness, principles, approaches, characters, or personalities teachers or educators bring into the occupation or work (Kennedy et al, 2008), and to Jian et.al. (2011), it was related to the qualifications a teacher or an educator possesses in the course of educational career. The worth of teaching and learning in this study would be assessed as required teacher competence and required teacher qualification.

Home Environment refers to the practices, approaches, and resources about learning that a student meets and interrelates within the home setting (Burchinal et al, 2006). In this study, the home environment was conceptualized as the parent's educational background, parental attitude towards education, and material support by parents.

Riaz & Asad, (2018) held the Classroom atmosphere is a vibrant societal arrangement that does not only comprise teachers' behavior, and teacher-student interaction but also student-student communication. Fraser, (1991) opined that it is the overall environment, constructions or buildings, procedures or methods or practices, beliefs or morals in classrooms that influence students' learning" (P.231). Therefore, in this study, the classroom environment was conceived as adequate classroom facilities, accepted classroom ethos, teacher-student interaction, student-student interaction, and availability of instructional materials. This kind of research had not been conceptualized in that study area to define the issues that affect students' academic performance. That was why

the study adopted Walberg's theory to establish essential factors influencing students' academic performance in Madi-Okollo District secondary schools.

1.1.4 Contextual Perspective. This study was conducted in Madi-Okollo district secondary schools where it was reported by the District Inspector of Schools that there was poor academic performance due to high failure rates evidenced by results from UCE exams. For example, in schools such as Rhino Camp, Okollo, Ogoko Seed**,** Ullepi, Offaka, and Rhino Camp High Secondary Schools**,** it was reported that the students' academic performance was poor. From 2015 to date, only 2.2% of the candidates obtained Division Two, 17.3% in Division Three, 58.8% in Division Four, and 21.7% of the candidates failed (Division 9) indicating poor academic performance (UNEB Summary of UCE Results: 2015-2019). Thus, the researcher sought to examine how four of Walberg's factors that is student motivation, Quality of Teaching and Learning, and Home and Classroom Environment affect Students' Academic Performance in Madi-Okollo District Secondary Schools.

1.2 Statement of the Problem

Abd Jabar et al. (2012) stated that students were being judged on their performance in academics. In Madi-Okollo district secondary schools, it was reported by the District Education Officer (DEO) that learning outcomes were not good (personal communication, November 23, 2021). This was evidenced by the high failure rates when students reach senior four and sit for UCE in Rhino Camp, Okollo, Ogoko Seed, Ullepi, Offaka, and Rhino Camp High Secondary Schools from 2015-to 2019 where only 2.2% of the candidates obtained division two, 17.3% in division three, 58.8% in division four, and

21.7% of the candidates failed the examination indicating a high failure rate thus poor academic performance (UNEB Summary of UCE Results: 2015-2019). The District Inspector of Schools (DIS) also reported poor performance in internal examinations and low participation of students in school activities, low participation in class work due to student absenteeism, and low enrolment in the secondary schools (personal communication, February 6, 2022), yet no known research was carried out to establish how the four of Walberg's factors were responsible for the poor academic performance in Madi-Okollo District. Unsatisfactory school performance not only results in learners having low self-confidence but also leads to stress and discouragement for the parents (Karande & Kulkarni, 2005). If this problem continued in the district, it would lead to a decline in enrolment, low income, and loss of interest by the community in the schools and that was why there was a need to undertake a study to establish how Student Motivation, Quality of Teaching and Learning, Home and Classroom Environment, affect students' academic performance and make recommendations to mitigate those factors of poor academic performance in Madi- Okollo District secondary schools.

1.3 Purpose of the study

This study intended to evaluate Walberg's factors and students' academic performance in Madi-Okollo District secondary schools.

1.4 Objectives

The study was directed by the following Objectives;

i. Examine the association between student motivation and Students' Academic Performance.

ii. Find out the Relationship between the quality of teaching and Learning and Students' Academic Performance.

iii. Assess the Relationship between home environment and Students' Academic Performance.

iv. Examine the relationship between classroom environment and Students' Academic Performance.

1.5 Research Questions

i. What is the relationship between Student Motivation and Students' Academic Performance?

ii. What is the relationship between the Quality of Teaching and Learning and Students' Academic Performance?

iii. What is the relationship between Home Environment and Students' Academic Performance?

iv. What is the relationship between the Classroom Environment and Students' Academic Performance?

1.6 Hypotheses

The hypotheses include;

(i). There is no statistically significant relationship between Student Motivation and Students' Academic Performance (Ho1).

(ii). There is no statistically significant relationship between the Quality of Teaching and Learning and Students' Academic Performance (Ho2).

(iii). There is no statistically significant relationship between Home Environment and Students' Academic Performance (Ho3).

(iv). There is no statistically significant relationship between Classroom Environment and Students' Academic Performance (Ho4).

1.7 Scope of the Study

1.7.1 Content Scope. The focus of the study was to assess the Dependent variable (students' academic performance) and Walberg's factors (Independent variables) which were Student Motivation, Quality of Teaching and Learning, Home, and Classroom Environment in Madi-Okollo District secondary schools. Academic performance was measured by active class involvement, timely completion of class tasks, timely completion of homework assignments, passing tests with good grades, passing exams with good grades, and active Participation in Co-curricular activities or events Such as Debates. Student motivation was measured by student direction, student effort, and student persistence. Quality of Teaching and Learning was measured using Required Teacher competence as well as Required Teacher qualification. Home Environment was measured by parental education background, parental attitude towards education, and material support by parents while Classroom Environment was measured by adequate classroom facilities, accepted classroom ethos, teacher-student interaction, Student-student interaction, and availability of instructional materials.

1.7.2 Time scope. The research considered data ranging from 2015 to 2019 regarding Students' Academic Performance, student motivation, quality of teaching and learning, Home, and Classroom Environment in Madi-Okollo district secondary schools. The period had been chosen because the study wished to obtain the most recent data.

1.7.3 Geographical Scope. Madi-Okollo district O'level government-aided and privately owned Secondary schools was where the study was carried out. O'-level classes were used to provide data in this study.

1.8 Significance of Study

The Education Ministry and stakeholders would use the findings for developing teaching and learning policies on factors influencing students' academic performance in the country. It would help headteachers, district authorities, Board of Governors (BOG), and Parents Teachers Association (PTA) members to devise strategies on how to improve students' academic performance, especially on the roles they are to play and the findings would also supplement the existing knowledge on students' academic performance.

1.9 Conceptual Framework

Student Academic Performance (Dependent Variable) and Walberg's factors which are Student Motivation, quality of teaching and learning, Home, and classroom Environment (Independent Variables).

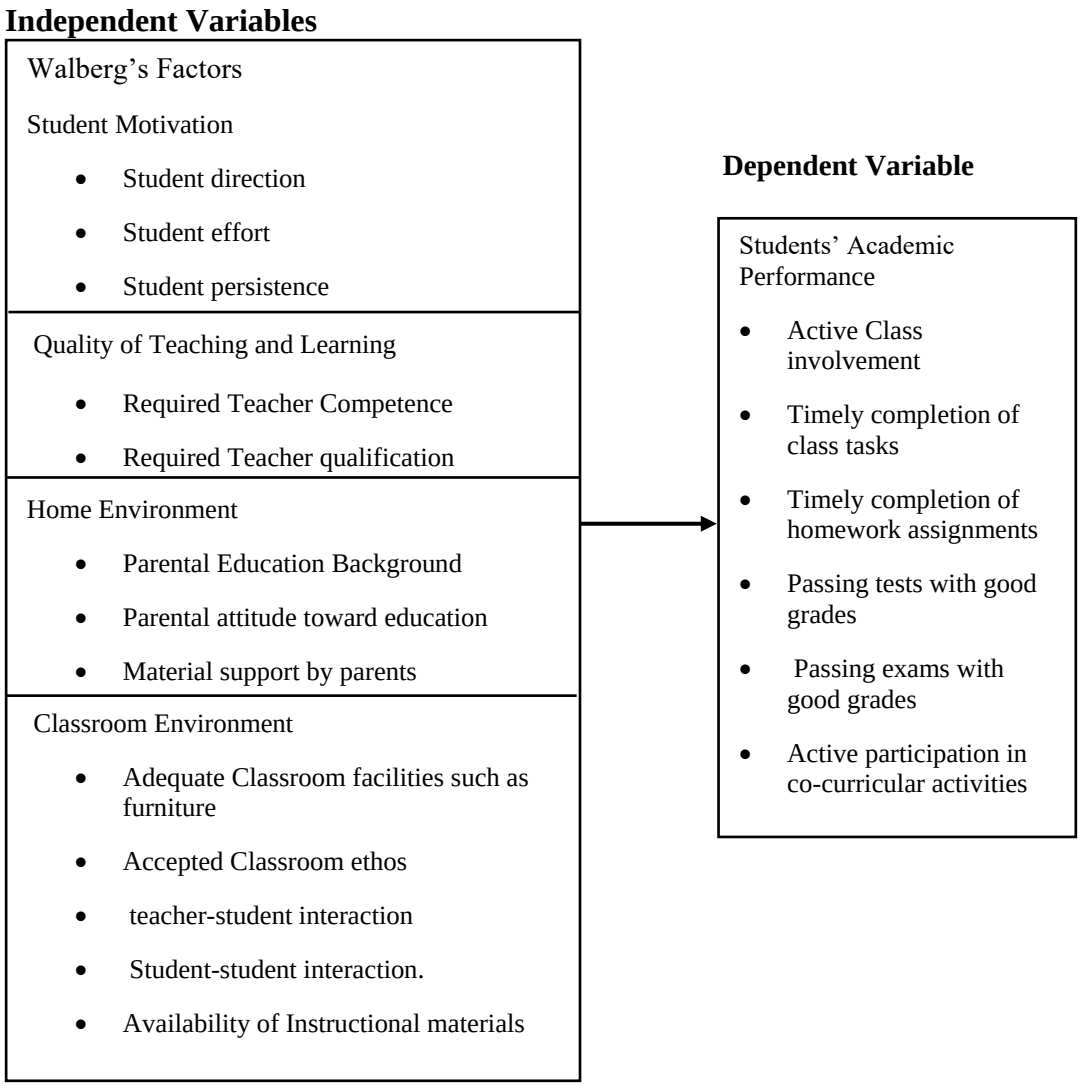

Figure 1.1

The conceptual framework showing students' academic performance

The Conceptual Framework examines students' academic performance (DV) measured by active class involvement, timely completion of class tasks, timely completion of homework assignments, passing tests with good grades, passing

exams with good grades, and active Participation in Co-curricular Activities and Walberg's factors as measured by Student Motivation, Quality of Teaching and Learning, Home, and Classroom environment (IVs). It was assumed that the relationship between Students' Academic Performance (SAP) and Student Motivation (SM), Quality of Teaching and Learning (QTL), Home environment (HE), and Classroom environment (CE) was positive.

1.10 Definition of Key Terms

Educational Productivity: Further measures of school quality consisting of pupil achievement, quality of teaching, and class size.

Home Environment: The practices, approaches, and resources about learning that a student meets and interrelates within the home setting.

School Environment: The experiences, human and material resources about learning that students meet at the formal place of learning.

Competence: Personal capacity to cope with specific situational demands.

School ethos: Standards, morals, rules, ideals, and principles, that regulate the spirit of the school, and these are exhibited in the way students and teachers interact or relate to each other.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

In this chapter, literature studied by other researchers based on Walberg's factors of students' academic performance was reviewed according to the objectives of the study which were to assess the relationship between Student Motivation, Quality of Teaching and Learning, Home Environment, Classroom Environment, and Students' Academic Performance.

2.1 Theoretical Review

In this study, Walberg's 1981 model of Educational Productivity which fundamentally assumed that Academic Performance was a consequence of Student motivation, Quality of Teaching and Learning, Home environment, and Classroom environment was used. To improve educational productivity, there is a need to increase the above categories which fall under aptitude, instructional and environmental factors thus the need to determine the link between students' academic performance and Walberg's factors that is Student Motivation, Quality of Teaching, and Learning, Home, and Classroom Environment in Madi-Okollo district secondary schools.

2.2 Related Literature

Literature related to the study was reviewed concerning Student Motivation (SM), Quality of Teaching and Learning (QTL), Home environment (HE), Classroom Environment (CE), and Students' Academic Performance (SAP).

2.2.1 Student Motivation. Various literature was reviewed from different scholars who carried out studies on student motivation and students' academic performance for instance Gbollie and Keamu (2017), using a cross-sectional research design found that motivational belief was the most preferred belief and students' rehearsal strategies were found to be the most frequently used in connection with their academic performance. They added that motivational beliefs were very vital to the academic success of students because they helped to determine the degree to which students would consider, and exert the necessary effort, and concentration in their studies. The scholars in their study suggested that future studies consider such a combination of both students' self-reports and their academic performances. This study was carried out in all the senior secondary schools of Madi-Okollo district to increase the sample size.

Similarly, using both quantitative and qualitative designs to examine the relationship between motivation and higher secondary school students' academic performance in Sulur, Coimbatore, Tamilnadu, Nigeria, Sivapakiam & Nalinilatha, (2017) indicated that the motivation of students would play a great role in minimizing examination malpractices and go a long way in seeing to the realization of educational goal and the students need to be motivated so that they can do better in their academic pursuit. This study was also limited to Higher secondary schools in and around the Theni district with a small sample size. The gap was filled by increasing the sample size and considering ordinary-level classes in both government and private secondary schools since there are no Advanced level schools in Madi-Okollo district.

In agreement, Oriahi, (2009), indicated upon employing survey and interview methods to examine the motivation and academic performance of students in Edo State, Nigeria that the motivation of students was very vital for better academic productivity. Their scope was only restricted to public secondary schools in the Edo State of Nigeria, however, this study considered both public and private secondary schools in Madi-Okollo district. Muhammad et.al. (2015) indicated a Statistically Significant relationship between motivation and the academic performance of the students. This was after employing survey design and correlation analysis in research that sought to investigate the effect of motivation on the academic performance of students at the University of Sultan Zainal Abidin, Malaysia. They held that, in the event of inadequate motivation to learn, the result of such learning would be unacceptable. In their study, the researchers considered university students as a representative sample, however, the study was carried out in all the secondary schools of Madi-Okollo district.

2.2.2 Quality of Teaching and Learning. Literature was also reviewed on the Quality of Teaching and Learning and Students' Academic Performance for example Allexander (2013), conducted a study to investigate the impact of lectures' competence on the academic performance of students in tertiary institutions of the Gauteng Province of South Africa, using survey and correlation designs, random sampling and questionnaires to gather data. He suggested that knowledge of the subject, teaching skills, attendance by lecturers, and their attitude had a positive relationship with students' academic performance.

He suggested that providing training to teachers on specific competencies can effectively enhance the quality of teaching and learning towards the accomplishment of improved students' academic performance. Although he concentrated on higher educational training institutions in South Africa with only 115 students as a representative sample, the study carried out in the secondary schools of Madi-Okollo district had an increased sample size of 210.

Similarly, Amie-Ogan & Etuk (2020) who also conducted a study on the influence of teachers' competence on the academic performance of students in Public secondary schools in Ekot Ekpene and Essien Udim Local government areas of Ibom state, Nigeria found that teachers' knowledge of subject content and instructional skills encourage the academic performance of students. They argued that when teachers with relevant competencies are lacking, educational facilities could not be used to facilitate the academic performance of students. They further added that the competencies of teachers can affect students' academic performances greatly because a competent teacher can manage the classroom, use a range of instructional materials, and adopt appropriate use of pedagogy and effective communication for teaching and learning to take place. The study was conducted in both public and private secondary schools to address educational challenges in the context of Madi-Okollo district in Uganda. However, Prasetio et.al (2017) on the professional competence of lecturers as well as its impact on the Academic Performance of Students in Indonesian Higher education stated that the professional competency of teachers has no substantial association with the Academic Performance of the students. To them, teachers' professional competency cannot make the students attain improved academic performance but rather with a combination of other

factors such as learning facilities, motivational strategies, socio-economic background of the students' families, parental role, and peer influence among others. They also believed that not any person regarded as a professional can do well as a lecturer. Therefore, the competence of a teacher alone does not automatically lead to better academic performance of students but rather alongside creativity, discipline, communication, and adequate preparation. Their study was undertaken in a foreign country in higher institutions of learning with a small sample size of about 200 students making the generalizability of findings difficult.

This was in line with Bonney et.al. (2015), who carried out a study on the relationship between the quality of teachers and pupils' academic performance in the Sekondi Takoradi Metropolitan Assembly (STMA) Junior High Schools of the Western region of Ghana. Using descriptive survey design and descriptive statistics to analyze data found that even though the quality of teachers may be high in terms of their academic and professional qualifications, it did not reflect much in the performance of the students.

In agreement, Lydia and Migosi (2015) on teacher qualification and students' academic performance in Science, Mathematics, and Technology subjects in Kenya found that teacher qualification and experience do not significantly influence the students' academic performance in Science, Mathematics, and Technology subjects. In this study, general academic performance was considered but not specific subjects. Blömeke et.al. (2016), conducted a study to examine how crucial input and process characteristics of schooling were related to cognitive student outcomes at the University of Oslo, Norway. A cross-sectional survey design was adopted for this study and the results

indicated that teacher quality and instructional quality were significantly related to student achievement. The researchers reported that their limitations were reliance on cross-sectional data and the limited sample size in their study. This study was conducted in Madi-Okollo district secondary schools but not university level with a large sample size.

Tadesse et.al. (2018), through a qualitative approach to examine broadly the perceptions of a variety of stakeholders on the quality of teaching and learning, and assessment and review experiences in Higher education in Ethiopia, suggested that quality improvement efforts gradually lead to quality assurance. Their study focused on one public university in Ethiopia but in Madi-Okollo district, it focused on all the secondary schools that is both public and private.

2.2.3 Home Environment. Literature was also reviewed from different scholars who carried out studies concerning the status of the home and its impact on the academic performance of students for example, Yvonne (2015) explored the components of parental participation and its association with students' academic performance in mathematics, reading comprehension, and Social Studies at the secondary level. Using a cross-sectional survey design, questionnaire and semi-structured interviews and random selection of sample indicated that as parental participation increased, students' scores in mathematics, reading, and social studies also increased. A similar study could also focus on general students' academic performance but not on specific subjects.

Non-provision of adequate educational materials by parents and relaxed attitudes of some parents toward the education of their children as well as the

Socio-economic status of the students' families, all affect the students' academic performance. This was as per Obeta, (2014), who carried out a study on home environmental factors affecting students' academic performance in Abia State, Nigeria, using a survey approach and descriptive statistics. Students from senior secondary schools were used in the study but not primary schools. However, Onesto and Kasselman (2015), who carried out a study on the influence of home environment on students' academic performance in selected secondary schools in Arusha Municipality, Tanzania through quantitative approach and descriptive statistics revealed that there was no direct relationship between home environment and students' academic performance. This study was conducted in both public and private secondary schools in Madi-Okollo district in Uganda.

Adoyo (2015), through descriptive survey design and using both quantitative and qualitative techniques to analyze data, conducted a study on the influence of home environment on the academic Performance of Primary School Pupils in the English Language in Alego-Usonga sub-county, Siaya County, Kenya. The findings revealed that there was an influence of the home environment on the academic performance of primary school pupils in the English Language. The study limited itself to only a few selected primary schools in the Alego-Usonga sub county and English Language as a measure of academic performance, leaving out other subjects like mathematics. This study focused on both public and private secondary schools not primary and generally considered students' academic performance, not the performance in a specific subject.

2.2.4 Classroom Environment. Among the various literature reviewed on classroom environment and the academic performance of students was by scholars like Kamaruddin et.al. (2009), who carried out a study to determine how students access the various components of their learning environment at the University of Putra, Malaysia. The descriptive survey design was used and data analysis was done using descriptive statistics and product-moment correlation suggesting that facilities such as housing and involvement of teachers were prominent components of the Classroom Environment that positively relate to students' academic performance. Although their study was conducted at the University, this was done in the secondary schools of Madi-Okollo district in Uganda. In agreement, Hakizimana, (2016) researched to determine the linkage between the management of the classroom and the academic performance of the students in secondary schools in the Nyamagabe District of Rwanda. Using a case study approach and descriptive statistics, the finding showed that there was a statistically significant relationship between the management of classrooms and the academic performance of students. Since the study was limited to the Nyamagabe District of Rwanda, more studies could be done in other countries such as Madi-Okollo district of Uganda, and mixed methods research approach was used instead of a case study.

Duruji et.al. (2014), on the learning environment and academic performance of secondary school students in external examinations in Ota, Covenant University (Nigeria) through survey approach and descriptive analysis revealed that the quality of infrastructure and learning environmental conditions have a strong bearing on academic performance among students. Therefore, more

studies needed to be done in other Districts or a larger geographical area or a study carried out to determine if the entry behavior of students affects their academic performance as well as to determine whether teachers' qualification affects students' academic performance.

Similarly, Mwaniki, (2012), also revealed that the more teaching methods and resources that a teacher uses, the higher the academic performance as methods of assessment influence academic performance. This was during a study carried out on the influence of classroom management on student academic performance in History in public secondary schools in Embu East district through descriptive research design and descriptive statistics used to analyze data. In this study, general students' academic performance was considered instead of a specific subject in Madi-Okollo district secondary schools. Ramli et.al. (2018), who looked at the influence of system management, learning environment, and infrastructure on students' academic performance using survey design, random sampling, and questionnaires to collect data, showed that teaching aids and hostels were the most important facilities to influence academic performance of campus students. They carried out their study at the university level in Malaysia but this was carried out in the secondary schools of Madi-Okollo district in Uganda.

In the same vein, Phillias & Kennedy (2010) on the effect of instructional materials on academic performance in secondary schools' mathematics in Bondo districts of Kenya indicated a positive relationship between the DV and the IVs. He suggested that the availability of teaching and learning resources enables the effectiveness of schools as these were basic things that bring about

good students' academic performance. In this study, general students' academic performance was considered not specific subjects.

On classroom ethos, Ehiane, (2014), on the relationship between discipline in schools and the academic performance of students, using cross-sectional and survey design, questionnaire, interview guide, and documentary review to collect data showed that effective Management of school discipline has an impact on the students' academic performance. He stated that if a school is effectively disciplined, the academic performance on the part of the student and teacher will be greatly expected. In the study, he concluded that school rules and regulations play a great role in guaranteeing the academic performance of students. This study was conducted in Madi-Okollo district secondary schools with the aid of questionnaires and interview guides as data collection instruments.

2.3 Summary of Literature Gaps.

Some studies undertaken by Gbollie & Keamu, 2017, Sivapakiam & Nalinilatha, 2017, Blömeke et.al, 2016, and Yvonne, 2015, used a small sample size since they were limited to a smaller geographical area. Others such as (Oriahi, 2009, Muhammad et.al., 2015, Blömeke et.al., 2016, Bonney et.al, 2015, and Amie-Ogan & Etuk 2020) considered public secondary schools, University level, and junior high schools respectively but not senior secondary Schools in general. Adoyo, (2015), focused on primary schools, and some studies such as that undertaken by Mwaniki, 2012, Yvonne, 2015, and Phillias & Kennedy, 2010, carried their studies in specific subjects such as English, History, Science, Mathematics, Technology, reading comprehension, and social studies thus neglecting general academic performance.

On the generalizability of findings, studies such as by Tadesse et.al. (2018), relied on one Public University making the transferability of their findings limited. Others such as Gbollie and Keamu, 2017, Blömeke et.al 2016, Yvonne, 2015, & Ehiane, 2014 used a cross-sectional approach, while Oriahi, 2009, Muhammad et.al. 2015, Adoyo, 2015, and Phillias & Kennedy, 2010 employed descriptive survey approach.

Meanwhile, some of the scholars such as Sivapakiam & Nalinilatha, 2017, and Hakizimana, 2016 employed both qualitative and quantitative, and case study approaches respectively. Studies such as those undertaken by Hakizimana, (2016) made suggestions for further studies to be conducted in other areas with wider geographical scope. They also suggested determining if the admission results of students, as well as the educational background of teachers, affected their academic performance. Gbollie & Keamu (2017), also recommended for further studies to be undertaken by considering students from other areas with a bigger sample size instead of limiting it to only two counties making the generalizability of findings difficult. Meanwhile, Muhammad et.al. (2015), suggested that further studies to include the use of different samples such as all the faculties within the institution to enable a more generalization of the findings to the entire study population.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

Research Approach and Design, Population and Sampling Techniques, Research Instruments, Quality Control, Data Analysis, Ethical Considerations, Limitations and Delimitations to the study are presented in this chapter.

3.1 Research Approach and Research Design

In this study, a mixed-methods Research Approach was taken with the quantitative approach being dominant. Halcomb & Hickman (2015), describe 'mixed-methods' as research that incorporates quantitative and qualitative data in a particular study leading to participant enrichment. As for the research design, a mixed concurrent Research Design was taken that is both Quantitative and Qualitative designs were employed. Van der Merwe (1996) explains the design of research as a plan for a study, which provides an entire outline for gathering data.

On the quantitative side, cross-sectional, survey, and correlation designs were used in the study. A cross-sectional design was used to carry out data once and for all. As for the survey design, a self-administered questionnaire was given to a large population to be able to generalize the findings. Correlation was carried out to establish the relationship between the variables under study. Simple linear regression was also carried out to explain the value of the DV from one continuous IV while Multiple linear regression analysis was used to examine the effect of the IVs on the DV. On the qualitative side, descriptive design was used by way of interview guides, participant voices were transcribed, initial

codes formed from the transcripts, and then came up with categories/patterns and themes quoting participants verbatim to be able to interpret and derive meaning from their participant voices.

3.2 Population

This study targeted students in secondary schools at the ordinary level in the district of Madi-Okollo with all five government-aided secondary schools and one private school.

On the quantitative side, the target population was 1,105 students. The accessible population was 477 obtained from all the senior three and four students who had stayed in the schools for quite some time and had gone through some of the systems in school. Senior one and two classes were left out due to the limited experience they had in secondary education and failure to have Advanced level classes in the secondary schools of the district.

On the qualitative side, the target population included one District Inspector of Schools (DIS), 12 members of the Board of Governors (BOG), 12 Parents Teachers Association (PTA) members, six Headteachers, and six Teachers. The accessible population was one DIS, three members of BOG, three members of PTA, three Headteachers, and four Teachers obtained through purposive and convenience sampling with the use of interview method to obtain responses from the participants.

3.2.1 Sample. On the quantitative side, out of the accessible population of 477 students, the sample size was 210 students according to Krejcie and Morgan, (1970) sampling table.

On the qualitative side, the District Inspector of Schools (DIS) was sampled as he was directly involved in inspecting and supervising schools on issues of academics and management. Three members of BOG, and three members of PTA with at least each selected from Upper and Lower Madi-Okollo constituencies. These categories were chosen because they were the stakeholders charged with the responsibility of managing schools. There were three Headteachers selected for this study because the management of the school rests on them with at least each selected from the two constituencies of Lower and Upper Madi-Okollo and one from the only private school. Four teachers were also selected with three males and one female.

3.2.2 Sampling Techniques. On the quantitative side, each school was assumed to be a cluster having students of different characteristics thus cluster sampling was adopted. To get the sample size from each cluster, a proportionate fraction method was adopted which is 210/477=0.44. The proportionate fraction was obtained by multiplying 0.44 by the total number of S3 and S4 students per cluster or school.

Table 3.1:

Proportionate Fraction per Cluster/School

Cluster/School	**Proportionate Fraction**	**Sample**
Rhino Camp S.S	0.44*66	29
Ullepi S.S	0.44*85	37
Okollo S.S	0.44*60	26
Ogoko Seed S.S	0.44*26	12
Offaka S.S	0.44*45	20
Rhino Camp High S.S	0.44*195	86
Total	477	210

Based on the sampling frame (Students' lists) provided, a simple random sampling technique was used as a means of obtaining the actual number of student respondents. On the qualitative side, purposive and convenience sampling techniques were adopted to select one DIS, three BOG members, three PTA members, three Headteachers, and four Teachers from the six schools since they were the only secondary schools in the district.

Table 3.2:

Sample Size Description

Category	**Population (N)**	**Sample Size (S)**	**Sampling technique**	**Method**
District Inspector of Schools (DIS)	01	01	Purposive	Interview
BOG	12	03	Convenience	Interview
PTA	12	03	Convenience	Interview
Headteachers	06	03	Purposive	Interview
Teachers	06	04	Purposive	Interview
Students	477	210	Cluster/Proportionate fraction & Simple Random	Questionnaire

3.3 Data Collection Methods

On the quantitative side, the survey method was used which Glasow, (2005) explains as a method for collecting data about features, activities, feelings, views, or ideas of a bigger group of people (p.77). On the qualitative side, interview was used to get an understanding of the variables as perceived by the participants.

3.4 Data Collection Instruments

On the quantitative side, the study made use of a self-administered questionnaire that had six Sections (A, B, C, D, E, and F, as Appendix I: Questionnaire for Students). Section A: Background Information had three items; Section B: Students' Academic Performance had eight items; Section C: Student Motivation had 11 items; Section D: Quality of Teaching and Learning had 11 items; Section E: The Home Environment had nine items and Section F:

The Classroom Environment had 11 items and all these were administered to students.

On the qualitative side, interview guides were made use of that is appendix II which had four items was administered to the District Inspector of Schools (DIS). Appendix III which had four items was administered to the Board of Governors (BOG) as well as Parents Teachers Association (PTA) members, and Appendix IV and V which had five items each were administered to Headteachers (HTR) and Teachers (TR) respectively.

From the items in the interview guide, items (1a, b, and c) from Appendices II, III, IV, and V on Students' Academic Performance (SAP) applied to all the respondents; item two from Appendix IV and V on student motivation was responded to by the Headteachers and Teachers respectively. Item Two Appendix II, item two Appendix III, item three Appendix IV, and item three Appendix V on the quality and competence of teachers applied to all the respondents.

Meanwhile, item three Appendix II about the home environment where the students come from only applied to the DIS. This was followed by item three Appendix III, item four Appendix IV, and V applied to BOG and PTA, HTR, and TR. Then, item four Appendix II and III, and item five Appendix IV and V about the classroom environment where students come from applied to all the respondents. The table given below shows the variables in the study, sources of instruments, number of items per variable, and their reliability (α values).

Table 3.3:

Variables in the Instrument

Variable	**Number of Items adapted**	**Sources of the instrument, no. of items, and their reliabilities (α values)**
Student Motivation (SM) (Section B)	1 4 3 3	Oriahi (2009), 9 items (α = 0.75) Pahlifi & Nurcahyo (2019), 30 items * Solmaz et.al. (2014), 19 items (α = 0.895) You et.al. (2018), 25 items (α = 0.71-0.90).
Quality of Teaching and Learning (QTL) (Section C)	4 5 1 1	Moreno-Murcia et.al. (2015), 28 items * Daniel & Bimbola (2021), 7 items (α = 0.79) Bonney et.al. (2015), 4 items * Doris & David (2009), 35 items (α = 0.71)
Home Environment (HE) (Section D)	7 2	Daniel & Solomon (2021), 26 items (α = 0.79) Faquia & Khurram (2019), 20 items (α = 0.824)
Classroom Environment (CE) (Section E)	5 2 1 3	Jesus & Diego (2015), 24 items * Quek et.al. (2005), 8 items (α = 0.76 - 0.84) Myint & Darrell (2013), 7 items (α = 0.78 - 0.87) Yang & Huang (2015), 50 items (α = 0.77)
Students' Academic Performance (SAP) (Section F)	4 4	Daniel & Solomon (2021), 7 items (α = 0.79) Pahlifi & Nurcahyo (2019), 30 items *

* No Alpha was reported.

Items that had values above 0.70, indicated a good internal consistency hence reliable, and were comfortably used in this study, however, some of the items had no Alpha values reported.

3.5 Validity and Reliability of Instruments/ Quality Control

In this section, the quality of data collection instruments for both quantitative and qualitative data were defined.

3.5.1 Validity of the Instruments. On the quantitative side, the validity of the instruments that is the self-administered questionnaires were measured by adapting the already-made instruments whose validity was previously established. Then after data collection, a Confirmatory Factor Analysis was run with the aid of SPSS. An item that loaded above 0.5 was taken to be a valid item. On the qualitative side, quality control was assured by interviewing and getting real and first-hand information from multiple participants and triangulation of participants' voices and data.

3.5.2 Reliability of the Instruments. On the quantitative side, the reliability of the instruments was assured by adapting the already-made instruments whose reliability was already computed. Then, after data collection, reliability was computed using the Cronbach coefficient, and items on a factor with a reliability of 0.7 above were considered reliable. On the qualitative side, quality control was assured by interviewing and getting real and first-hand information from multiple participants and triangulation of participants' voices and data.

3.6 Research Procedure

In this study, after approving the research proposal, an introductory letter was got from Kyambogo University Department of Educational Planning and Management to the relevant authorities within Madi-Okollo district and to the secondary school headteachers to seek informed permission and consent from the participants before proceeding to collect data.

3.7 Data Analyses

Quantitative Data was analyzed at descriptive, comparative, correlational, and regression levels. At the descriptive level, the computation of frequencies, means, averages, and aggregates, among other descriptive statistics were performed on the variables. At the comparative level, analysis of ANOVA and student t-test to compare background information variables with the dependent variable was carried out. At the correlational level, the Pearson linear correlation of analysis was run to examine how the four hypotheses (IVs) relate to the Dependent Variable (DV). At the regression level, a simple linear regression analysis was run to determine the variation of SAP (DV) from SM, QTL, HE, and CE (IVs). Meanwhile, Multiple Linear Regression Analysis was carried out to establish the effect of the four (IVs) on the (DV).

On the qualitative side, after data collection by way of interview guides, participant voices were transcribed, initial codes were formed from the transcripts, and then came up with categories/patterns and themes quoting participants verbatim to be able to interpret and derive meaning from the participant voices.

3.8 Ethical Considerations

Before data collection, the kind of study to be undertaken was spelt out and explained to the respondents that involvement in the study was voluntary and based on informed consent and that as respondents, they had the will to pull out from the study at any time they desired. They were also assured that the choice not to respond to some questions was upon them when they felt uncomfortable. During the introduction, the researcher also informed the participants to follow

the guidelines for the prevention of coronavirus by wearing face masks, applying hand sanitizer, and maintaining social distancing.

Participants were informed that any data that they divulged was to be treated confidential and that none of the issues revealed would be exposed in any way. The interviewees were assured in advance about the purpose of the study, and the privacy involved when they took part. The researcher followed the respondents wherever they were and interviewed them without interfering with their normal duties and their consent was always sought as to whether to record their response or not and in case they did not feel contented with taping the interview, the device was then not used.

3.9 Limitations to the Study

During the study, the challenge of high transport cost was experienced as the schools were distant from each other, expenditure on secretarial services, weather changes, delays in filling the questionnaires by some respondents and failure to disclose information. There was a delay in completing the research work due to outbreak of Covid-19 pandemic, traveling long distances to meet the supervisors, lack of support and resentment from the workplace, health as well as financial challenges.

Despite all these issues, serious efforts were made to overcome all of them and therefore sufficient data was collected and the issues did not have any impact on data so there was no challenge.

3.10 Delimitations to the study

The study focused on data ranging from 2015-2019 regarding SAP, SM, QTL, HE and CE in Madi-Okollo district O'level secondary schools both government and private.

Out of the 1,105 students, 210 were used as a sample in conducting the survey and on the qualitative side, data was limited to the DIS, 3BOG members, 3PTA members, 3Headteachers and 4Teachers.

The main purpose was to examine the relationship between SAP and SM, QTL, HE and CE in Madi-Okollo district secondary schools. Survey and interview were used as data collection methods and self-administered questionnaire and interview guides as instruments for data collection. The study considered every aspect of students' personal information that had an impact on their academic performance such as their gender, the age bracket, class, and the socio-economic status of the parents, participation in co-curricular activities, use of instructional materials, teacher quality and competence, parental support and classroom environment. Each of the respondents were given the same questionnaire to answer and structured interview guides were administered to the respondents.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

4.0 Introduction

In this study, both quantitative and qualitative data was presented. On the quantitative side, the results from the field were presented, analyzed, and interpreted under five major sections. In the first section, descriptive data analysis was presented. Section two contained comparative data analysis and in section three, correlative data was analyzed to establish the relationship between variables. In section four, a Simple Linear Regression Analysis was conducted to determine the variation in students' academic performance (DV) from SM, QTL, HE, and CL (IVs), and finally, Multiple Linear Regression Analysis to evaluate the joint effect of the four IVs on the (DV).

On the qualitative side, after data collection by way of interview guides, participant voices were transcribed, initial codes were formed from the transcripts and then came up with categories/patterns and themes. Respondents were then quoted verbatim for interpretation and meanings derived from their voices.

4.1 Descriptive Characteristics of Respondents

In this study, both quantitative and qualitative data were collected. On the Quantitative side, the anticipated number of respondents was 210, made up of students of senior three and four in the six secondary schools of Madi-Okollo district for the questionnaire survey. After data collection, the actual number of respondents was 210, made up of students giving a response rate of 100%. All

participants who filled in the questionnaire were asked about their gender, age bracket, and class as indicated in table 4.1.

Table 4.1:

Frequencies and Percentages on the Categories of Participants' Background Information (BI)

Item	Categories	Frequency	Valid Percent (%)
Gender	Male	144	68.9
	Female	65	31.1
The Age Bracket of Respondents	14-15 Years	8	3.9
	16 -17 Years	32	15.5
	18 -19 Years	96	46.6
	20 -21 Years	55	26.7
	21 Above Years	15	7.3
Class	S3	69	33.5
	S4	137	66.5

Source: Primary Data

The findings in Table 4.1 indicated that most (68.9%) of the participants were male as compared to 31.1% who were female. About the age brackets in which the respondents belonged, those who belonged to the age bracket of 18-19 (46.6%) came first, 20-21 (26.7%) followed, then those in the age bracket of 16-17 (15.5%). This was followed by those in the age bracket of 21 and Above (7.3%) and lastly, those in the age bracket of 14-15 years (3.9%). Regarding the respondents' class category, the majority (66.5%) belonged to S4 class as compared to 33.5% in the S3 class.

For Qualitative Data, five categories of respondents were selected and these included the District Inspector of Schools (DIS), two Board of Governors

(BOG) members, two Parents Teachers Association (PTA) members, three Headteachers, and four teachers who were considered for interviews. The respondents interviewed were coded as District Inspector of Schools (DIS), BOG members (BOG1, BOG2 & BOG3), PTA members (PTA1, PTA2 & PTA3), Headteachers (HTR1, HTR2 & HTR3), and Teachers (TR1, TR2, TR3, & T4) respectively.

4.2 Dependent Variable (Students' Academic Performance)

Under Students' Academic Performance (SAP) as the dependent variable, there were eight items: Respondents were asked as to whether they performed well on tests, were always ready for exams, actively participated in class, and performed well in exercises and assignments. They were also asked whether they performed well in all the subjects, liked doing homework to improve performance, always worked hard, and engaged in class debates to improve their performance.

Each of the eight items (SAP1-SAP8, Appendix I, Section B) on Students' Academic Performance was scaled using the Five-point Likert scale where 1 = Strongly Disagree; 2 = Disagree; 3 = Undecided; 4 = Agree; 5 = Strongly Agree. In Table 4.2 the related results were given. Descriptive results namely; frequencies, percentages, and means were presented. Thereafter, the results were presented according to the items on the self-administered questionnaire as indicated in the Instrument (Appendix I, Section B), table 4.2.

Table 4.2:

Frequencies, Percentages, and Means of Items on Students' Academic Performance (SAP)

Code SAP	Students' Academic Performance		SA	A	UN	D	SD	SD	Mean	Overall Rating
SAP1	I perform well on tests.	Freq	58	63	43	38	7	1.17	3.6	Agree
		%	27.8	30.1	20.6	18.2	3.3			
SAP2	I am always ready for exams	Freq	115	47	30	7	7	1.05	4.2	Agree
		%	55.8	22.8	14.6	3.4	3.4			
SAP3	I actively participate in class.	Freq	87	66	34	13	6	1.05	4.0	Agree
		%	42.2	32.0	16.5	6.3	2.9			
SAP4	I perform well in exercises and assignments.	Freq	74	73	37	17	5	1.04	3.9	Agree
		%	35.9	35.4	18.0	8.3	2.4			
SAP5	I perform well in all the subjects.	Freq	27	51	48	49	27	1.25	3.0	Undecided
		%	13.4	25.2	23.8	24.3	13.4			
SAP6	I like doing homework to improve my performance.	Freq	93	59	22	20	13	1.23	4.0	Agree
		%	44.9	28.5	10.6	9.7	6.3			
SAP7	I always work hard.	Freq	123	50	26	6	3	.91	4.4	Agree
		%	59.1	24.0	12.5	2.9	1.4			
SAP8	I engage in-class debates to improve my performance.	Freq	63	48	34	23	37	1.47	3.4	Undecided
		%	30.7	23.4	16.6	11.2	18.0			

The findings in Table 4.2 on if the participants performed well on tests showed that 57.9% performed well on tests as compared to 21.5% who did not perform well on tests. Considering the mean of 3.6 close to code 4 which corresponds

to agree, the result suggested that, the respondents performed well on tests. Regarding whether the respondents were always ready for exams, 39.3% were always readily compared to a few 3.4% who were always not ready. Considering the mean 4.2 close to code 4 which corresponds to agree, the result suggested that respondents were always ready for exams. On the item of whether they actively participated in class, 37.1% actively participated in class as compared to 4.6% who did not actively participate in class. Considering the mean of 4.0 which corresponds to agree, the result suggested that respondents actively participated in class.

On whether they performed well in exercises and assignments, 35.7% performed well as compared to 5.35% who did not perform well. Considering the mean of 3.9 close to code 4 which corresponds to agree, the findings indicated that, the participants performed well in exercises and assignments. Concerning whether the respondents performed well in all the subjects, 19.3% performed well in all the subjects as compared to 18.85% who did not perform well. Considering the mean of 3.01 close to code 3 which corresponds to undecided, the result suggested that the respondents performed fairly well in all the subjects.

Regarding the item of whether the respondents liked doing homework to improve their performance, 37% liked doing homework as compared to 8% of those who did not. Considering the mean of 4 which equals code 4 which corresponds to agree, the result suggested that the respondents liked doing homework to improve their performance. On whether they always worked hard, 42% of the respondents always worked hard as compared to 2.2% who

did not work hard. Considering the mean of 4.4 close to code 4 which corresponds to agree, the result indicated that the respondents always worked hard.

When asked whether the respondents engaged in class debates to improve their performance, 27.05% engaged in class debates as compared to 14.6% who did not. Considering 3.4 as the mean close to code 3 which corresponds to undecided, the result suggested that the respondents were fairly engaged in class debates to improve their performance.

To establish an overall representation of the way the participants evaluated themselves on Students' Academic Performance (SAP), an aggregate index of SAP = (SAP1+ SAP2 + SAP3 + SAP4 + SAP5 + SAP6 + SAP7 + SAP8)/8 for the eight items measuring Students' Academic Performance (SAP) was computed. Measures of the central tendency on the same were; the mean = 3.83 and median = 3.88. The mean and median being very close suggested normal distribution of the findings and this is seen in Fig. 4.1.

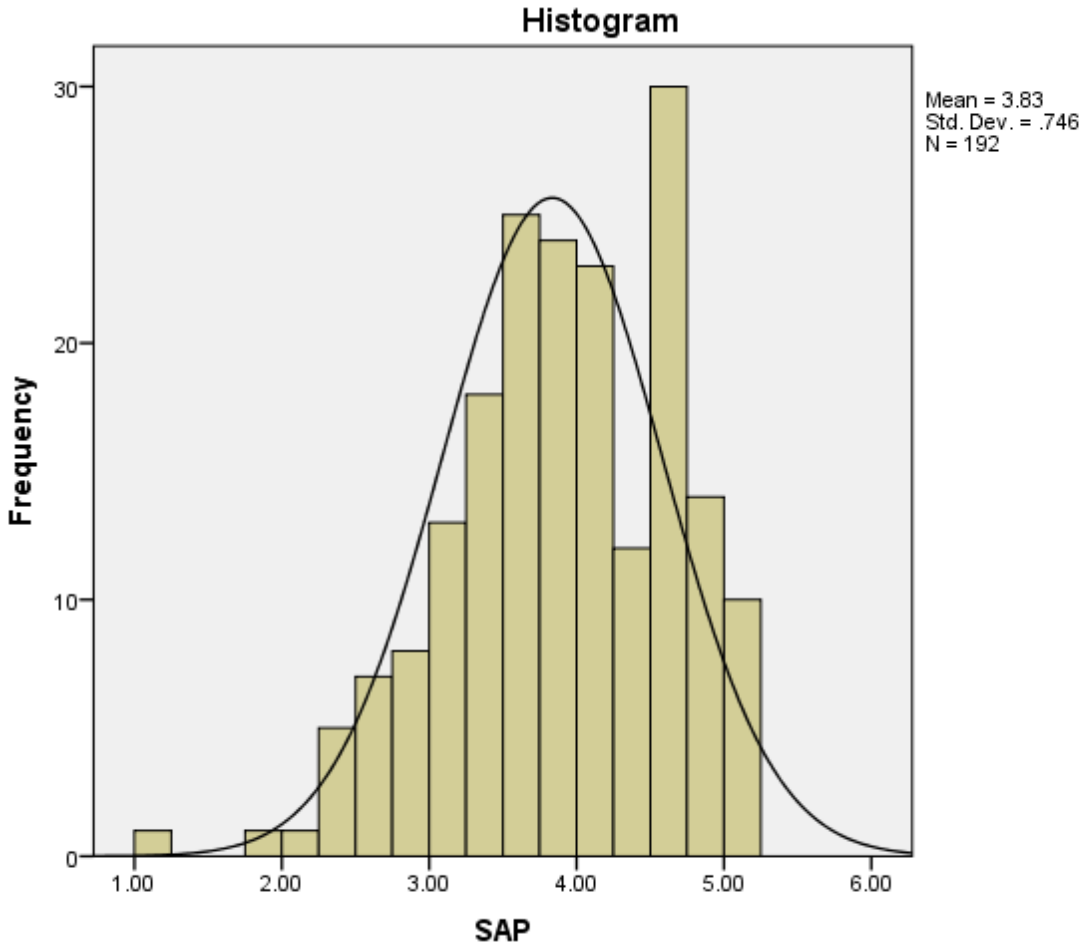

Figure 4.1:

Distribution of Responses on Students' Academic Performance (SAP)

4.2.1. Validity and Reliability of the Dependent Variable (SAP)

To ascertain if the Students' Academic Performance (SAP) component of items in the instrument were effective, a validity and reliability test was carried out to confirm their consistency. The result of the respective eight items on the factor and their reliabilities (Cronbach Alpha) were as given in Table 4.3.

Table 4.3:

Validity and Reliability of the Items on Students' Academic Performance (SAP)

Item	Component	Reliability of Eight Valid Items
* I perform well on tests.	0.580	0.799
*I am always ready for exams.	0.549	
*I actively participate in class.	0.773	
*I perform well in exercises and assignments	0.636	
*I perform well in all the subjects.	0.716	
*I like doing homework to improve my performance.	0.658	
*I always work hard.	0.619	
*I engage in-class debates to improve my performance	0.658	

*Valid items

Prudon (2015) recommended factor loadings of at least 0.5 to be considered high and therefore, from Table 4.3, all the eight items namely; SAP1, SAP2, SAP3, SAP4, SAP5, SAP6, SAP7, and SAP8, loaded highly ($\alpha > 0.5$) which meant that they were valid items of Students' Academic Performance (SAP). The reliability test for the eight valid items in Table 4.3 ($\alpha = 0.799$) indicated that the eight items were reliable measures of students' academic performance.

4.2.2. Qualitative Results on the Dependent Variable (Students' Academic Performance, SAP)

To understand students' academic performance (SAP), three questions (a, b, c) were asked to all the respondents (DIS, BOG, PTA, HTR & TR) that is what their comments could be about students' academic performance in their schools or district, the factors affecting their students' academic performance and what

could be done to improve the academic performance of students in their schools or district.

(a). Students' Academic Performance (SAP)

On the question which sought comments about students' academic performance in their schools or district, there were varying responses ranging from good, and fair to poor for instance according to PTA3, the academic performance was good. He stated, *"For the last two years, there had been division one so the performance was good."* To respondents like (DIS, BOG1, PTA2, HTR2, TR1, and TR2), students' academic performance in the district or their schools was fair. For example, BOG1 stated that; *"The students' performance in Okollo secondary school is generally fair though we do not have students attaining first grade in O'level."* Similarly, respondents such as PTA1 noted that *"the performance is improving because out of few, we can get one or two first grades though we have less candidates".*

However, some respondents such as (HTR1 & TR4) stated that the students' academic performance was weak. To TR3, *"The performance is not good so in the school, there is no first grade so the performance is poor."* Since most of the respondents stated that the academic performance of students was fair, therefore the general academic performance of students in the secondary schools of Madi-Okollo district was fair (Average).

(b). Factors affecting Students' Academic Performance (SAP)

When asked about factors affecting students' academic performance in the schools or district, respondents such as (DIS, BOG1, BOG2, PTA2, PTA3, HTR2, HTR3, TR2, TR3, and TR4) gave varying opinions as; poverty in the

families, lack of parental support and guidance, negative attitude of parents towards education, peer group influence, indiscipline, negative environmental influence, inadequate facilities and low coverage of content for example, the DIS mentioned poverty in the families, lack of parental support and guidance coupled with the negative attitude of parents towards education as some of the factors affecting students' academic performance in the schools or district. *"……. the level of poverty in the families which contribute to low academic achievement of learners. The negative attitude of parents towards education where they do not support their children to go for education but rather prefer to go fishing."* This was supplemented by HTR3 which stated that; *"...Poor home backgrounds making learners suffer from getting requirements, in the long run, causing poor performance."*

According to the respondents such as (DIS, BOG2, PTA2, HTR2, and TR1*)*, peer group influence and indiscipline among students were some of the factors influencing students' academic performance. For instance, BOG2 stated that; *"Peer influence from other schools where indisciplined students influence those who are disciplined."* This was reinforced by HTR2 who stated that *"Peer influence where some students are taken up by peer pressure. Those who are in school are influenced making them drop out of school."*

On the other hand, BOG2 commented that; *"Discipline is another factor that is not seen much among students these days. If one is morally upright, performance can be well and vice versa. Students these days do not exhibit much discipline and do not attend church services,"* and PTA2 added; *"When the children are reminded of school, they become harsh so parents leave*

children free since it is their right. Children do not want to follow instructions or advice so parents give up."

From the interview, it was also reported by the (DIS & HTR1) that negative environmental influence due to lack of exposure impacted students' academic performance in Madi-Okollo district secondary schools for example, the DIS stated that; *"The environment also negatively affects the performance of the learners because of lack of exposure where learners do not see outside and think that what they are doing is the best yet they are doing underperforming."*

As per (PTA2, PTA3, & TR4), students' academic performance is influenced by a lack of student motivation for instance PTA2 stated, *"……. when children are not motivated by their parents, they cannot perform well. Some parents provide necessities while others do not making them not to concentrate. If necessities are not provided, they would not feel okay."* Similarly, TR4 stated that, *"the school administration does not motivate students, they claim students do not pay."*

The finding from the interview also revealed that inadequate facilities such as accommodation and instructional materials, as observed by some of the respondents such as (BOG1, BOG2, PTA3, HTR2, HTR3, TR1, & TR2), influence students' academic performance. BOG2 stated, *"Accommodation is a challenge, especially for girls, and boys using one of the classroom blocks as a dormitory. Teachers are not well accommodated……....."* HTR2 stated that *"There are limited facilities to accommodate learners, classrooms are congested, desks are not enough, and one desk accommodates three or four students."* He further stated that *"Inadequate learning materials such as*

teachers' guides, and textbooks for learners which affects teaching and learning."

Low coverage of content and the incompetence of some teachers affected students' academic performance in schools. This was observed by respondents such as (HTR3, TR2 & TR4) for example HTR3 noted that *"Low coverage of content; teachers being far away from school may not finish and one may not appear for about two or three days a week."*

HTR1 observed that academic performance was not good because some teachers were incompetent. *"Some of the teachers were not competent."*

(c). What can be done to improve the Students' Academic Performance (SAP)

On what could be done to improve the academic performance of students in the schools or district, all the interviewees responded for example (DIS, BOG1, HTR3, TR3 & TR4) provided varying suggestions which were summarized as; sensitization of the parents, exposure to the outside environment, provision of facilities, improvement of syllabus coverage, career guidance and counselling, instilling of discipline among the students and encouragement of co-curricular activities for example the DIS mentioned that there was a need for sensitization of the parents on the importance of education. *"There is a need to sensitize parents about the importance of education because without parents' knowing the value or importance of education, then it becomes a challenge,"* and HTR3 added that; *"Parents could be sensitized and some rules set for them."*

According to respondents such as (DIS, PTA3 & HTR1), learners were to be exposed to the outside environment as a way of improving students' academic

performance in secondary schools for instance PTA3 stated that there was a need for tours. *"Need for tours for the students…"* The DIS added that; "*Learners must be taken outside to see, survey, or tour other places so that they can go and see what is happening outside so that they get informed."* HTR1 added that; *"Teachers should do remedial teaching, fieldwork, and field excursions. Need for school exchange programs."*

Other respondents such as (DIS, BOG2, PTA2, PTA3, HTR2, & TR2) stated that students' academic performance could be improved by the provision of facilities such as accommodation to the staff for instance PTA2 stated that; *"……. Teacher accommodation needs to be improved as some houses are in appalling conditions, houses with the dusty floor, no bathing shelter, etc."* The DIS also observed that there were inadequate teachers' houses which affected students' academic performance. *"There are inadequate teachers' houses where some operate from very far especially Pawor, Ogoko, Rhino Camp, and Ullepi among others where there are no teachers' houses and teachers operate from very far."* BOG2 mentioned that the Library facility should be stocked with books and respondents such as (DIS, TR1 & TR2) suggested that academic performance could be enhanced by improving syllabus coverage, for instance, the DIS noted that; *"Teachers must follow their timetable to teach and the coverage of the syllabus must be okay,"* and TR1 also noted that; *"Teachers should continue teaching the learners, lost periods be covered through remedial teaching, considering every learner, helping them emotionally and psychologically, then guidance and counseling."*

Career guidance and counseling was one of the findings from the interview on what could be done to improve students' academic performance. This was as

per respondents such as (BOG1, BOG2, HTR1, HTR2, TR1, TR3 & TR4) for example BOG1 stated that *"The students have got talents in certain areas and thus need career guidance."* BOG2 also supported the same view by suggesting that, *"Stakeholders like chaplains to be brought on board. Old students to come on board and talk to the students as role models,"* and HTR2 stated that; *"Some students lose focus and therefore there is a need for guidance and counseling."*

There was a need for the school administration to instill discipline in the students as per respondents like (BOG1, BOG2, PTA2 & TR4). TR4 suggested that students found misbehaving to be reported as a way of instilling discipline; *"Report students found misbehaving outside."* Respondents like (BOG3, PTA2 & TR3) urged parents to visit students at school and attend meetings regularly as a way of improving students' academic performance for instance BOG3 indicated that; *"Parents need to come on board especially supervise students or visit to ascertain whether they are at school or not."* Meanwhile, TR3 suggested that; *"Parents need to play their role, and involve them in school meetings regularly."* Respondents such as (PTA2 & TR3) suggested encouraging co-curricular activities if students' academic performance was to be improved. PTA2 indicated that; *"School to organize routine debates so that a student in a year stands in front of others to at least say something,"* and TR3 added "*Formation of clubs so that students are busy and enjoy being in school. Encourage games and sports for example football, athletics, etc. to keep them at school."*

4.2.3 Comparative Data Analysis of Students' Academic Performance (DV) with Background Information (BI).

This section contains a comparative data analysis of SAP (DV) with respondents' background information; Gender, Age bracket of respondents, and Class.

4.2.3.1 Students' Academic Performance by Gender of Respondent.

To find out whether there were variances in students' academic performance according to their Gender, that is either Male or Female, a Student's t-Test was carried out and the results were as presented in Table 4.4.

Table 4.4:

Descriptive Statistics and t-Test Results for Students' Academic Performance by Gender

Categories of Gender	**Frequency**	**Sample mean**	**Sample SD**	**T**	**P**
Male	129	3.8	0.709	0.598	0.560
Female	62	3.9	0.828		

The results in Table 4.4 showed female respondents scored (mean = 3.9) higher on students' academic performance than their male counterparts (mean = 3.8). However, Student's t (t = 0.598) was small because its probability or level of significance (p =0.560) was larger than $\alpha = 0.05$ ($p > 0.05$). Thus, students' academic performance levels according to gender respondents did not vary significantly. So, the differences in the sample means may be attributed to chance.

4.2.3.2 Students' Academic Performance by Age Bracket of Respondents.

To establish whether there were variations in students' academic performance in terms of the age bracket of respondents, an ANOVA was carried out and the findings were as shown in table 4.5.

Table 4.5:

ANOVA Results on Students' Academic Performance by Age Bracket of Respondents

Age group	Frequency	Sample Mean	Sample SD	F	P
14-15	8	4.1	0.834	0.405	0.805
16-17	32	3.9	0.850		
18-19	96	3.8	0.762		
20-21	55	3.8	0.655		
Above 21 Years	15	3.7	0.889		

The results in above Table 4.5 showed that on average, participants who were in the age bracket of 18-19, (mean =3.8) scored highest on the academic performance level, followed by those who were 20-21 years (mean =3.8), then those who were 16-17 (mean = 3.9), above 21 years (mean = 3.7) and lastly 14-15 years (mean = 4.1). However, computed or observed F (F = 0.405) was small given that the level of significance (p = 0.805) was larger than $\alpha = 0.05$ ($p > 0.05$). Thus, the student academic performance levels of respondents did not differ significantly according to their ages. So, the differences in means may be attributed to chance.

4.2.3.3 Students' Academic Performance by Class of Respondent

To find out whether there were variations in students' academic performance (SAP) according to their Class, that is either S4 or S3, a student's t-Test was carried out and the results were presented in Table 4.6.

Table 4.6:

Descriptive Statistics and t-Test Results for Students' Academic Performance by Class

Categories of Class	Frequency	Sample mean	Sample SD	T	P
S3	63	3.9	0.694	0.598	0.5
S4	126	3.8	0.772		60

The findings in the above table 4.6 showed that (mean = 3.9) scored by S3 respondents was higher on students' academic performance (SAP) than S4 respondents (mean = 3.8). However, Student's t (t = 0.598) was small because its probability or level of significance (p =0.560) was larger than $\alpha = 0.05$ ($p > 0.05$). Thus, students' academic performance levels of S3 and S4 respondents did not differ significantly. So, the differences in the sample means may also be attributed to chance.

4.3 Objective One: Student Motivation (SM) and Students' Academic Performance (SAP)

This section deals with my first objective of the relationship between Student Motivation SM (IV1) and Students' Academic Performance SAP (DV). In this section, the descriptive statistics of SM were given, the validity and reliability of SM items, qualitative description of SM, the correlation between SM and SAP, and simple linear regression of SM on SAP was performed.

4.3.1 Student Motivation (SM)

Under student Motivation (SM), respondents were asked whether they always attended lessons in all the subjects, always asked their teachers for help, rarely gave up, studied on their own, and put in more effort when difficult exercises were given. They were also asked whether they enjoyed discussions on all the subjects, whether learning new things about the subjects was interesting and enjoyable to them, liked reading magazines and books connected to the subjects taught in class, put enough effort into learning all the subjects, spent a lot of time learning what was taught in class and always aimed at scoring highly in all the subjects. Each of the eleven items (SM1-SM11, Appendix I, Section C) on Student Motivation was scaled using the Five-point Likert scale where 1 = Strongly Disagree; 2 = Disagree; 3 = Undecided; 4 = Agree; 5 = Strongly Agree. In Table 4.7 the related results were given.

Table 4.7:

Frequencies, Percentages, and Means of Items on Student Motivation (SM)

Code SM	Student Motivation		SA	A	UN	D	SD	SD	Mean	Overall Rating
SM1	I always attend lessons in all the subjects	Freq	122	68	4	12	3	.89	4.4	Agree
		%	58.4	32.5	1.9	5.7	1.4			
SM2	I always ask my teachers for help.	Freq	70	92	16	23	6	1.06	4.0	Agree
		%	33.8	44.4	7.7	11.1	2.9			
SM3	I rarely give up.	Freq	66	49	10	38	43	1.57	3.3	Un-decided
		%	32.0	23.8	4.9	18.4	20.9			
SM4	I study on my own.	Freq	77	71	4	27	25	1.40	3.7	Agree
		%	37.7	34.8	2.0	13.2	12.3			
SM5	I put more effort when difficult exercises are given.	Freq	115	73	2	12	4	.92	4.4	Agree
		%	55.8	35.4	1.0	5.8	1.9			
SM6	I enjoy discussions on all the subjects	Freq	83	81	10	18	13	1.18	4.0	Agree
		%	40.5	39.5	4.9	8.8	6.3			
SM7	Learning new things about the subjects is interesting and enjoyable to me.	Freq	124	73	3	4	4	.79	4.5	Strongly Agree
		%	59.6	35.1	1.4	1.9	1.9			
SM8	I like reading magazines and books connected to the subjects taught in class	Freq	61	97	14	23	7	1.07	3.9	Agree
		%	30.2	48.0	6.9	11.4	3.5			
SM9	I put enough effort into learning all the subjects.	Freq	117	65	7	12	5	.97	4.3	Agree
		%	56.8	31.6	3.4	5.8	2.4			

SM10	I spent a lot of time learning what is taught in class.	Freq	92	76	11	15	7	1.05	4.1	Agree
		%	45.8	37.8	5.5	7.5	3.5			
SM11	I always aim at scoring highly in all subjects.	Freq	121	63	7	7	5	.90	4.4	Agree
		%	59.6	31.0	3.4	3.4	2.5			

The Results in Table 4.7 on if the participants always attended lessons in all the subjects, 45.45% always attended lessons as compared to 3.55% who did not. Considering the mean of 4.4 close to code 4 which corresponds to agree, the result indicated that the respondents always attended lessons in all the subjects. On the item of whether the respondents asked their teachers for help, 39.1% always asked their teachers for help as compared to 7% who do not ask. Considering the mean of 4.0 corresponding to agree, the result indicated that the participants always asked their teachers for help. Regarding if they rarely gave up, 27.9% of the respondents stated that they rarely gave up as compared to 19.65% who easily gave up. Considering the mean of 3.3 close to code 3 which corresponds to undecided, the result indicated that the respondents were undecided as to whether they rarely gave up or not.

Concerning whether they studied on their own, 36.25% of the respondents studied on their own as compared to 12.75% who do not. Considering the mean of 3.73 close to code 4 which corresponds to agree, the result suggested that the respondents studied on their own. On whether the respondents put more effort when difficult exercises were given, 45.6% put more effort as compared to 3.85% who do not put more effort. Considering the mean of 4.4 close to code 4 which corresponds to agree, the result suggested that most respondents put

more effort when difficult exercises were given. When asked whether the respondents enjoyed discussions on all the subjects, 40% enjoyed discussions as compared to 7.55% who did not enjoy them. Considering the mean of 4.0 which corresponds to agree, the result indicated that the respondents enjoyed discussions in all the subjects.

Regarding whether learning new things about the subject was interesting and enjoyable to them, 47.35% of the respondents stated that learning new things about the subjects was interesting and enjoyable as compared to 1.9% who stated that it was not interesting and enjoyable. Considering the mean of 4.5 close to code 5 which corresponds to strongly agree, the result indicated that most respondents stated that learning new things about their subjects was interesting and enjoyable. Respondents were asked whether they liked reading magazines and books connected to the subjects taught in class, 39.1% liked reading them as compared to 7.45% who do not. Considering the mean of 3.9 close to code 4 which corresponds to agree, the result suggested that respondents liked reading magazines and books connected to the subjects taught in class. On whether they put more effort into learning all the subjects, 44.2% of the respondents put more effort as compared to 4.1% who do not. Considering the mean of 4.3 close to code 4 which corresponds to agree, the result indicated that the respondents put more effort into learning all the subjects. When asked if the respondents spent a lot of time learning what is taught in class, 41.8% of the respondents spent a lot of time learning what is taught in class as compared to 5.5% who do not. Considering the mean of 4.2 close to code 4 which corresponds to agree, the result suggested that the respondents spent a lot of time learning what is taught in class.

Finally, when respondents were asked whether they always aimed at scoring highly in all the subjects, 45.3% always aimed at scoring highly in all the subjects as compared to 2.95% who do not always aim at scoring highly in all the subjects. Considering the mean of 4.4 close to code 4 which corresponds to agree, the result indicated that most respondents always aimed at scoring highly in all the subjects.

To establish a general representation of the way the respondents evaluated themselves on Student Motivation (SM), an aggregate index of SM = (SM1+ SM2 + SM3 + SM4 + SM5 + SM6 + SM7 + SM8 + SM9 + SM10 + SM11)/11 for the eleven items measuring SM was computed. The measures of central tendency on the same were mean = 4.1 and median = 4.18. The mean and median being very close suggested normal distribution of the findings as seen in Figure 4.2.

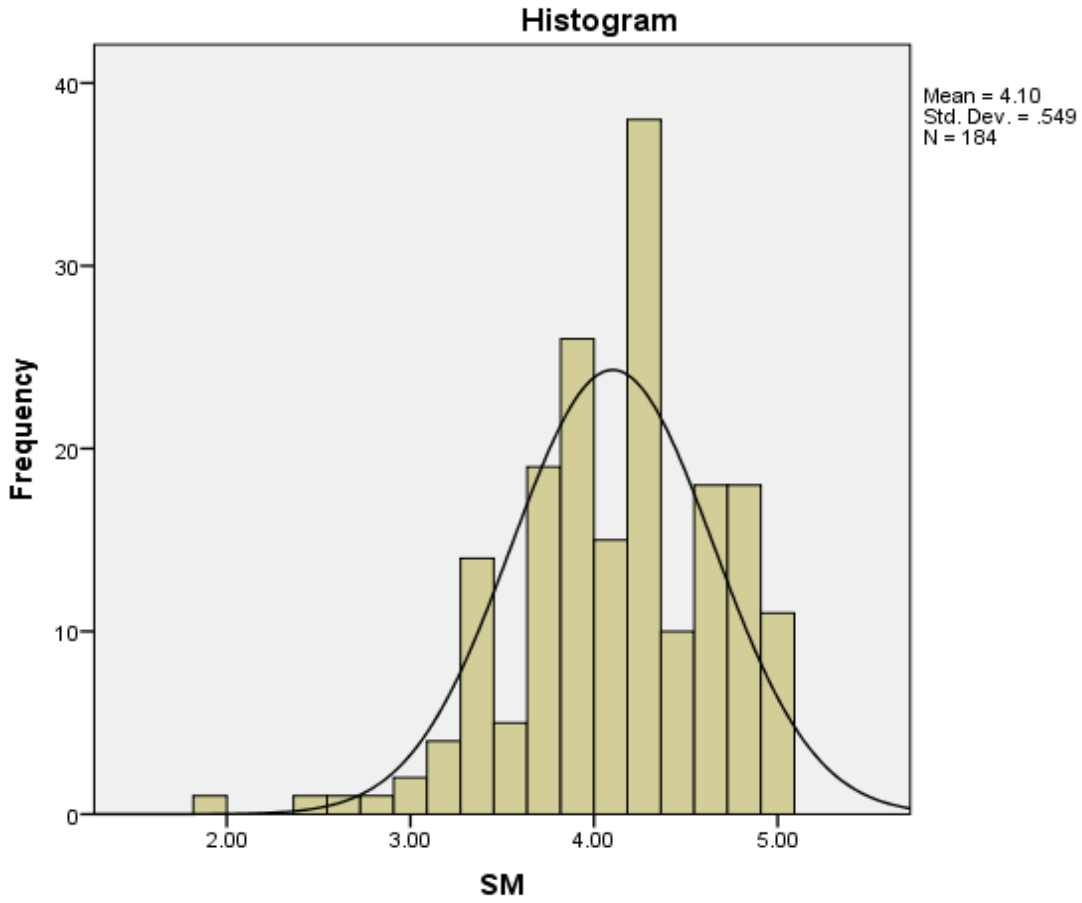

Figure 4.2:

Distribution of Responses on Student Motivation (SM)

4.3.2. Validity and Reliability of Student Motivation (SM)

To verify if the eleven items used to measure Student Motivation (SM) component in Table 4.8 were effective, a validity and reliability test was carried out to confirm their trustworthiness and consistency using (Cronbach Alpha) as indicated in Table 4.8.

Table 4.8:

Validity and Reliability of the items on Student Motivation (SM)

Item	Component	Reliability of items
*I always attend lessons in all the subjects.	0.619	0.708
*I always ask my teachers for help.	0.623	
I rarely give up.	0.141	
I study on my own.	0.203	
*I put more effort when difficult exercises are given.	0.699	
*I enjoy discussions on all the subjects.	0.548	
*Learning new things about the subjects is interesting and enjoyable to me.	0.617	
*I like reading magazines and books connected to the subjects taught in class.	0.599	
*I put enough effort into learning all the subjects.	0.652	
*I spent a lot of time learning what is taught in class.	0.516	
*I always aim at scoring highly in all subjects.	0.530	

**Valid items*

From Table 4.8, items SM3 and SM4 loaded below 0.5 meaning that they were not valid and thus not reliable. Meanwhile, nine items namely; SM1, SM2, SM5, SM6, SM7, SM8, SM9, SM10, and SM11, loaded highly ($\alpha > 0.5$),

and the reliability test for the nine items in Table 4.8 ($\alpha = 0.708$) indicated acceptable reliability, therefore, the nine items were reliable measures of SM.

4.3.3 Qualitative Result on Student Motivation (SM)

To understand Student Motivation (SM), a question was asked which was only responded to by the headteachers and teachers on what one would say about student motivation in their schools. The result from the interview indicated that respondents had varying opinions ranging from weak, fair to poor for example HTR1 stated that motivation was weak. *"Weak motivation to the students…"* and to HTR2, student motivation was fair. *"Student motivation is a little high in the school where different NGOs come in to give support."* Meanwhile, for TR4, student motivation was poor. *"For the last few years, motivation has lost strength."* Therefore, on average, it implied that student motivation was poor and as a result, the overall students' academic performance in Madi-Okollo district secondary schools would be affected.

4.3.4. Correlation of Student Motivation (SM) and Students' Academic Performance (SAP)

To find out if there was an association between Student Motivation (SM) and Students' Academic Performance (SAP), Correlation analysis was conducted as shown in Table 4.9.

Table 4.9:

Correlation of Student Motivation (SM) and Students' Academic Performance (SAP).

Correlations

		SAP	SM
SAP	Pearson Correlation	1	.436**
	Sig. (2-tailed)		.000
	N	192	173
SM	Pearson Correlation	.436**	1
	Sig. (2-tailed)	.000	
	N	173	184

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

The results in Table 4.9 suggested that SM was a significant positive correlate of SAP ($p < 0.05$). Thus, hypothesis Ho1 was rejected in favour of the alternative hypothesis which states *"there is a statistically significant relationship between student motivation and students' academic performance."* The Pearson correlation of ($r = 0.436$, $P < 0.000$) is less than the ($p < 0.05$) level of significance. This implied that there was a reasonable association between the two variables which were positively related as improvement in SM factors were related to a significant change in SAP.

4.3.5. Simple Linear Regression Analysis of Student Motivation (SM) and Students' Academic Performance (SAP).

To ascertain whether SM predicted SAP in the study, a Simple Linear Regression Analysis was run that is, SAP (DV) was regressed on SM, the first Independent Variable (IV) as shown in Table 4.10.

Table 4.10:

Simple Linear regression analysis of SAP on SM

Student Motivation	Standardized B	Significance P
	0.436	0.000
Adjusted $R^2 = 0.186$		
F = 40.234, p = 0.000		

The result from the table indicated a significant regression model (F = 40.234, p = 0.000 < 0.05, and Adjusted R^2 = 0.186) showing that Student Motivation (SM) explained 18.6% of the variation in SAP. This meant that student motivation accounted for only 18.6% of the variation in students' academic performance leaving the remaining percentage to other factors.

4.4. Objective Two: Quality of Teaching and Learning (QTL) and Students' Academic Performance (SAP)

This section deals with my second objective of the relationship between Quality of Teaching and Learning QTL (IV2) and Students' Academic Performance SAP (DV). In this section, the descriptive statistics of QTL were given, the validity and reliability of QTL items, qualitative description of QTL, a correlation between QTL and SAP, and Simple Linear Regression of QTL on SAP was performed.

4.4.1. Quality of Teaching and Learning (QTL)

Under QTL, respondents were asked as to whether they were always ready for their lessons, whether their teachers make them aware of the skills to be acquired in their subjects, whether their teachers use material resources to facilitate learning, whether their teachers attend to them and respond clearly to questions asked in class, they were aware of all the objective of learning the subjects and whether their teachers were very creative when teaching in class. They were also asked whether their teachers could teach all the topics in their subjects, whether teachers were aware of the methods of teaching their subjects, whether their teachers organized seminars on their subjects, whether their teachers were qualified to teach their subjects, and whether their teachers used a variety of assessment methods for them.

Each of the eleven items (QTL1-QTL11, Appendix I, Section D) on Quality of Teaching and Learning was scaled using the Five-point Likert scale where 1 = Completely Disagree; 2 = Disagree; 3 = Undecided; 4 = Agree; 5 = Completely Agree. In Table 4.11 the related results were given.

Table 4.11

Frequencies, Percentages, and Means of Items on Quality of Teaching and Learning (QTL)

Code QTL	Quality of Teaching and Learning		CA	A	N	D	CD	SD	Mean	Overall Rating
QTL 1	I am always ready for my lessons.	Freq	130	62	8	2	3	.75	4.5	Completely Agree
		%	63.4	30.2	3.9	1.0	1.5			
QTL 2	My teachers make me aware of the skills to be acquired in their subjects	Freq	69	80	18	22	11	1.17	3.9	Agree
		%	34.5	40.0	9.0	11.0	5.5			
QTL 3	My teachers use material resources to facilitate learning.	Freq	40	82	25	38	16	1.23	3.5	Agree
		%	19.9	40.8	12.4	18.9	8.0			
QTL 4	Our teachers attend to us and respond clearly to questions asked in class	Freq	77	87	18	9	10	1.05	4.1	Agree
		%	38.3	43.3	9.0	4.5	5.0			

QTL 5	I am aware of all the objectives of learning the subjects.	Freq	54	81	25	23	17	1.23	3.7	Agree
		%	27.0	40.5	12.5	11.5	8.5			
QTL 6	My teachers are very creative when teaching in class.	Freq	72	78	19	20	13	1.19	3.9	Agree
		%	35.6	38.6	9.4	9.9	6.4			
QTL 7	My teachers can teach all the topics in their subjects.	Freq	27	57	28	46	39	1.37	2.9	Undecided
		%	13.7	28.9	14.2	23.4	19.8			
QTL 8	My teachers are aware of the methods of teaching their subjects.	Freq	66	81	30	19	8	1.09	3.9	Agree
		%	32.4	39.7	14.7	9.3	3.9			
QTL 9	My teachers organize seminars on their	Freq	30	40	30	43	59	1.45	2.7	Undecided
		%	14.9	19.8	14.9	21.3	29.2			

	subjects.									
QTL 10	My teachers are qualified to teach their subjects.	Freq	74	82	27	12	8	1.05	4.0	Agree
		%	36.5	40.4	13.3	5.9	3.9			
QTL 11	Our teachers use a variety of assessment methods for us.	Freq	53	76	31	30	13	1.20	3.6	Agree
		%	26.1	37.4	15.3	14.8	6.4			

The findings in Table 4.11 on if the participants were always ready for their lessons indicated that 46.8% were always ready as compared to 1.25% who were not always ready for their lessons. Considering the mean of 4.5 close to code 5 which corresponds to completely agree, the result suggested that respondents were always ready for their lessons. On whether their teachers make them aware of the skills to be acquired in their subjects, 37.25% of the respondents were made aware by their teachers of the skills to be acquired in their subjects as compared to 8.25% whose teachers did not make them aware. Considering the mean of 3.9 close to code 4 which corresponds to agree, the result indicated that most respondents were made aware of the skills to be acquired in their subjects by their teachers.

Regarding whether their teachers used material resources to facilitate learning, 30.35% of the respondents stated that their teachers used material resources to

facilitate learning as compared to 13.45% whose teachers do not use material resources. Considering the mean of 3.5 close to code 4 which corresponds to agree, the result indicated that the teachers of the respondents used material resources to facilitate learning.

When asked whether their teachers attended to them and responded clearly to questions asked in class, 40.8% of the respondents attended and responded to the teachers when they asked questions in class as compared to 4.75% whose teachers did not attend and respond to them. Considering the mean of 4.1 close to code 4 which corresponds to agree, the result suggested that the teachers of the respondents attended and responded clearly to questions asked in class. As regards whether the respondents were aware of all the objectives of learning the subjects, 33.75% were aware as compared to 10% who were not aware. Considering the mean of 3.7 close to code 4 which corresponds to agree, the result suggested that the respondents were aware of all the objectives of learning their subjects.

When asked whether their teachers were very creative when teaching in class, 37.1% of the respondents' teachers were very creative when teaching in class as compared to 8.15% whose teachers were not creative. Considering the mean of 3.9 close to code 4 which corresponds to agree, the result suggested that the teachers of the respondents were very creative when teaching in class. The respondents were also asked whether their teachers could teach all the topics in their subjects, 21.3% said that their teachers could teach all the topics as compared to 21.6% whose teachers could not teach all the topics. Considering the mean of 2.9 close to code 3 which corresponds to undecided, the result

suggested that the respondents were undecided as to whether their teachers could teach all the topics in their subjects or not.

When asked whether their teachers were aware of the methods of teaching their subjects, 36.05% responded positively as compared to 6.6 % who stated that their teachers were not aware. Considering the mean of 3.9 close to code 4 which corresponds to agree, the result suggested that the teachers of the respondents were aware of the methods of teaching their subjects. Regarding whether their teachers organized seminars on their subjects, 17.35% responded that their teachers organized seminars as compared to 25.25% whose teachers did not organize seminars on their subjects. Considering the mean of 2.7 close to code 3 which corresponds to undecided, the result indicated that most teachers of the respondents did not organize seminars in their subjects.

On whether their teachers were qualified to teach their subjects, 38.5% of the respondents were also positive as compared to 4.9% who stated that their teachers were not qualified to teach. Considering the mean of 4 which equals code 4 which corresponds to agree, the finding suggested that the respondents' teachers were qualified to teach their subjects. When respondents were asked whether their teachers used a variety of assessment methods for them, 31.8% responded positively as compared to 10.6% whose teachers did not. Considering the mean of 3.6 close to code 4 which corresponds to agree meant that their teachers used a variety of assessment methods for them.

To establish an overall representation of the way the participants evaluated themselves on QTL, an aggregate index of QTL = (QTL1 + QTL2 + QTL3 + QTL4 + QTL5 + QTL6 + QTL7 + QTL8 + QTL9 + QTL10 + QTL11)/11 for

the eleven items measuring QTL was computed. The measurement of central tendency on the same was the mean = 3.67 and median = 3.64. The mean and median being very close suggested normal distribution of the findings as seen in Fig. 4.3.

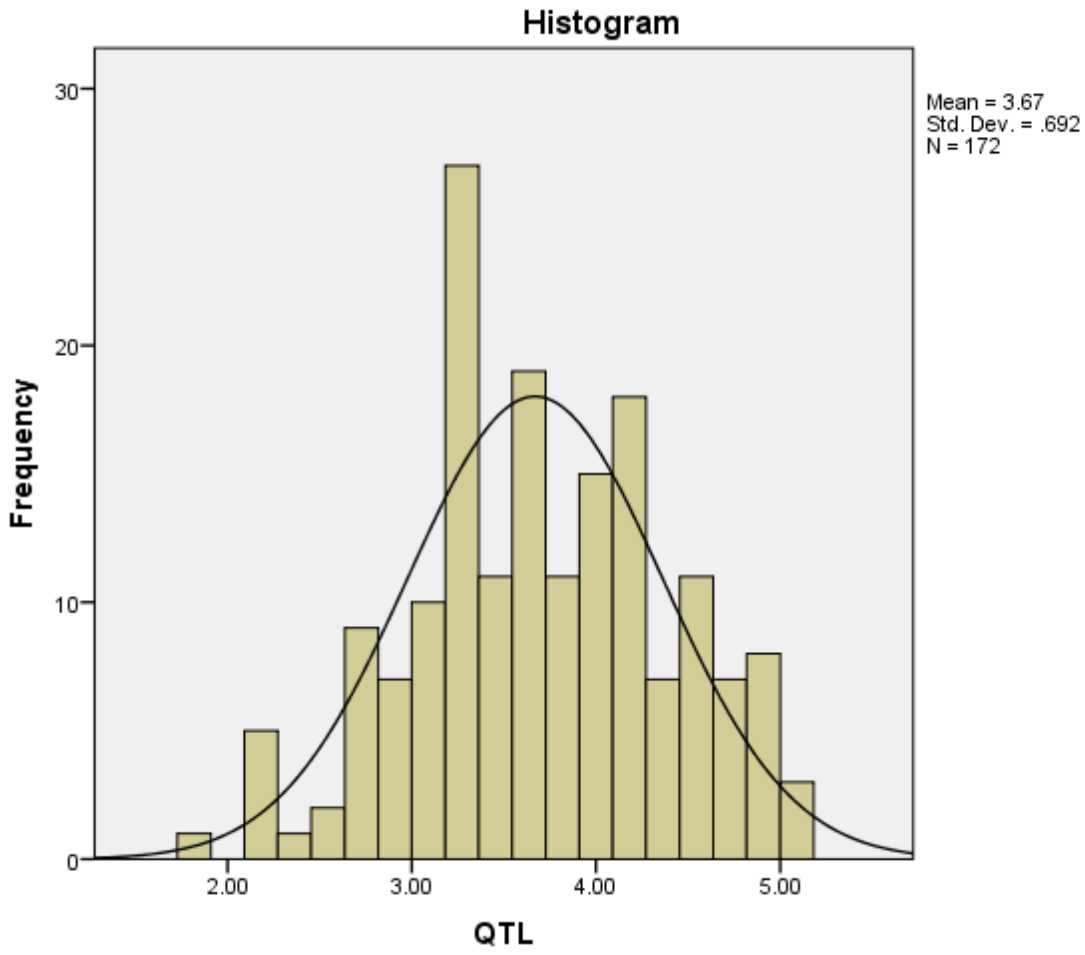

Figure 4.3:

Distribution of responses on QTL

4.4.2. Validity and Reliability of Quality of Teaching and Learning (QTL)

To verify if the eleven items used to measure the QTL component in Table 4.11 were effective, a validity and reliability test was carried out to confirm their trustworthiness and consistency using (Cronbach Alpha) as seen in Table 4.12.

Table 4.12:

Validity and Reliability of the Items on QTL

Item	**Component**	**Reliability of Items**
I am always ready for my lessons.	.454	.813
*My teachers make me aware of the skills to be acquired in their subjects.	.666	
*My teachers use material resources to facilitate learning.	.570	
Our teachers attend to us and respond clearly to questions asked in class.	.490	
*I am aware of all the objectives of learning the subjects.	.535	
*My teachers are very creative when teaching in class.	.724	
*My teachers can teach all the topics in their subjects.	.581	
*My teachers are aware of the methods of teaching their subjects.	.675	
*My teachers organize seminars on their subjects.	.560	
*My teachers are qualified to teach their subjects.	.706	
*Our teachers use a variety of assessment methods for us.	.545	

**Valid items*

From Table 4.12, items QTL1 and QTL4 loaded below 0.5 meaning that they were not valid and thus not reliable. Meanwhile, nine items namely; QTL2, QTL3, QTL5, QTL6, QTL7, QTL8, QTL9, QTL10, and QTL11, loaded highly ($\alpha > 0.5$) and the reliability test for the nine items in Table 4.9 ($\alpha = 0.813$) indicating an acceptable reliability coefficiency thus the nine items were reliable measures of QTL.

4.4.3. Qualitative Data on QTL and SAP

To understand the Quality of Teaching and Learning (QTL), a question which was responded to by all the participants (DIS, BOG, PTA, HTR & TR) was

asked on what their views were about teacher quality and competence in the secondary schools in the district. The result from the interview suggested various views from the respondents about the quality and competence of teachers. The responses were summarized as weak, incompetent, competent, and trained for example to HTR1, most of the teachers were weak and incompetent. *"Their competence is weak and they do not share with the other teachers. Some of the teachers have diplomas, others are bachelor holders and have not gone to upgrade."* PTA3 complemented that the teachers were competent. *"All the teachers are competent. Windle International recruits the teachers who are trained, perhaps the non-teaching staff."*

On the contrary, the DIS stated that all the teachers were trained. *"All the teachers who are here have been trained and are capable of handling ……. what is to be done."*

4.4.4. Correlation of QTL and SAP

To find out if there was an association between QTL and (SAP), a correlation analysis was carried out and the findings were as given in Table 4.13.

Table 4.13:

Correlation of QTL and SAP

		SAP	QTL
SAP	Pearson Correlation	1	.437**
	Sig. (2-tailed)		.000
	N	192	163
QTL	Pearson Correlation	.437**	1
	Sig. (2-tailed)	.000	
	N	163	172

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

The results in Table 4.13 suggest that QTL was a significant positive correlate of SAP ($p < 0.05$). Thus, hypothesis Ho2 was rejected and the alternative hypothesis which stated; "*There is a statistically significant relationship between quality of teaching and learning and students' academic performance,"* was accepted. The Pearson correlation of ($r = 0.437$, $P < 0.000$) which is less than ($p < 0.05$) level of significance implied that there was a reasonable association between the two variables which were positively correlated as improvement in QTL factors were related to a significant change in SAP.

4.4.5. Simple Linear Regression Analysis on QTL and SAP

To ascertain whether QTL predicted SAP in the study, a Simple Linear Regression Analysis was run that is, SAP was regressed on QTL, the second Independent Variable as shown in Table 4.14 below.

Table 4.14:

Simple Linear regression of Students' Academic Performance (SAP) on Quality of teaching and learning (QTL).

Quality of Teaching and Learning	Standardized B	Significance P
	0.437	0.000
Adjusted $R^2 = 0.186$		
$F = 38.014$, $p = 0.000$		

The result from the table indicated a significant regression model ($F = 38.014$, $p = 0.000 < 0.05$) and Adjusted $R^2 = 0.186$) showing that QTL explained 18.6% of the variation in SAP.

This meant that QTL accounted for only 18.6% of the variation in SAP leaving the remaining percentage to other factors as indicated in Table 4.14 above.

4.5 Objective Three: Home Environment (HE) and Students' Academic Performance (SAP)

This section dealt with my third objective of the relationship between Home Environment HE (IV3) and Students' Academic Performance SAP (DV). In this section, the descriptive statistics of HE was given, the validity and reliability of HE items, qualitative description of HE, Correlation between HE and SAP, and Simple Linear Regression of HE on SAP were performed.

4.5.1. Home Environment (HE)

Under Home Environment (HE), respondents were asked whether their parents went to work, whether their parents were educated, whether their parents could afford all the requirements that were essential for school, whether their parents help them with homework, and always come for PTA meetings. They were also asked whether their parents encouraged them to learn, responded promptly when called to discuss their performance at school, their parents encouraged them to participate in co-curricular activities, and whether their parents paid their school fees promptly. Each of the nine items (HE1-HE9, Appendix I, Section E) Home Environment was scaled using the Five-point Likert scale where 1 = Strongly Disagree; 2 = Disagree; 3 = Undecided; 4 = Agree; 5 = Strongly Agree. In Table 4.15 the related results were given.

Table 4.15:

Frequencies, Percentages, and Means of Items on Home Environment (HE)

Code HE	Home Environment		SA	A	UN	D	SD	SD	Mean	Overall Rating
HE1	My parents always go to work.	Freq	94	73	10	14	14	1.18	4.1	Agree
		%	45.9	35.6	4.9	6.8	6.8			
HE2	My parents are educated.	Freq	41	72	16	35	40	1.44	3.2	Un-decided
		%	20.1	35.3	7.8	17.2	19.6			
HE3	My parents can afford all the requirements that are essential for school.	Freq	48	45	16	36	59	1.58	2.9	Un-decided
		%	23.5	22.1	7.8	17.6	28.9			
HE4	My parents help me with homework.	Freq	29	65	13	47	51	1.45	2.9	Un-decided
		%	14.1	31.7	6.3	22.9	24.9			
HE5	My parents always come for PTA meetings.	Freq	69	72	10	31	22	1.36	3.7	Agree
		%	33.8	35.3	4.9	15.2	10.8			
HE6	My parents encouraged me to learn	Freq	147	49	3	1	4	.73	4.6	Strongly Agree
		%	72.1	24.0	1.5	.5	2.0			
HE7	My parents respond promptly when called to discuss my performance at school.	Freq	80	84	12	21	8	1.10	4.0	Agree
		%	39.0	41.0	5.9	10.2	3.9			
HE8	My parents encouraged me to	Freq	66	91	16	19	14	1.17	3.9	Agree
		%	32.0	44.2	7.8	9.2	6.8			

	participate in co-curricular activities									
HE9	My parents pay my school fees promptly.	Freq	87	59	9	28	24	1.41	3.8	Agree
		%	42.0	28.5	4.3	13.5	11.6			

Results in Table 4.15 where respondents were asked as to whether their parents always went to work, 40.75% stated that their parents went to work as compared to 6.8% whose parents do not go to work. Considering the mean of 4.1 close to code 4 which corresponds to agree, the result indicated that most parents of the respondents went to work. On whether their parents were educated, 28% of the respondents stated that their parents were educated as compared to 18.4% who said their parents were not educated. Considering the mean of 3.2 close to code 3 which corresponds to undecided, the result suggested that the respondents were undecided as to whether their parents were educated or not.

When asked if their parents could afford all the requirements that were essential for school, 22.8% of the respondents stated that their parents could afford them as compared to 23.25% whose parents could not afford them. Considering the mean of 2.9 close to code 3 which corresponds to undecided, the result suggested that the parents of most respondents could not afford all the requirements that were needed for school. On whether their parents helped them with homework and whether they always come for PTA meetings, 22.9% and 34.6% of the respondents indicated that their parents helped them with homework and come for PTA meetings as compared to 23.9% and 13% whose parents do not help them with homework and do not come for PTA meetings

respectively. Considering the mean of 2.9 close to code 3 which corresponds to undecided and the mean of 3.7 close to code 4 which corresponds to agree, the findings indicated that most of the participants were not helped with homework by their parents and that most of the parents of the respondents come for PTA meetings.

They were also asked whether their parents encouraged them to learn and 48.05% of the respondents were encouraged by their parents as compared to 1.25% whose parents do not encourage them to learn. Considering the mean of 4.6 close to code 5 which corresponds to strongly agree, the result suggested that the respondents were encouraged to learn by their parents. On whether their parents responded promptly when called to discuss their performance at school, 40% stated that their parents responded promptly when called to discuss their performance as compared to 14.9 whose parents do not. Considering the mean of 4.0 which corresponds to agree, the result indicated that the parents responded promptly when called to discuss their performance at school. Concerning whether their parents encouraged them in co-curricular activities, 38.1% of the respondents' parents encouraged them to take part in co-curricular activities as compared to 8% who do not participate. Considering the mean of 3.9 close to code 4 which corresponds to agree, the result suggested that respondents were encouraged by their parents to participate in co curricula activities.

When asked whether their parents paid their school fees promptly, 35.25% of the respondents stated that their parents paid their school fees promptly as compared to 12.6% whose parents could not pay their school fees promptly. Considering the mean of 3.8 close to code 4 which corresponds to agree, the

result suggested that the parents of the respondents paid school fees promptly. To establish an overall representation of the way the participants evaluated themselves on HE, an aggregate index of HE = (HE1+ HE2 + HE3 + HE4 + HE5 + HE6 + HE7 + HE8 + HE9)/9 for the nine items measuring HE was computed. The measures of central tendency on the same were the mean = 3.7 and median = 3.8. The mean and median being very close suggested normal distribution of the findings as seen in Fig. 4.4.

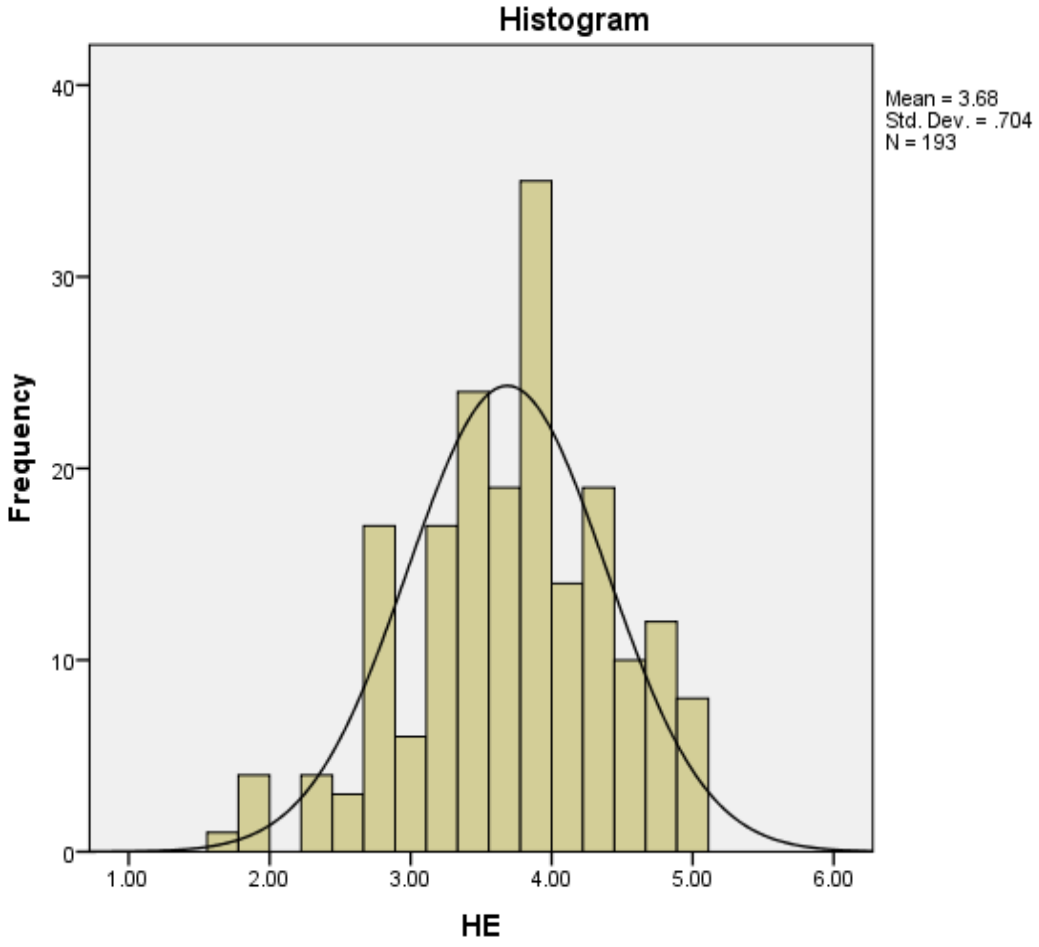

Figure 4.4:

Distribution of Responses on Home Environment

4.5.2. Validity and Reliability of Home Environment (HE) items

To verify if the nine items used to measure the HE component in Table 4.15 were valid, the items were subjected to a validity, and then a reliability test to confirm their trustworthiness and consistency using (Cronbach Alpha) as shown in Table 4.16.

Table 4.16:

Validity and Reliability of the items on Home Environment (HE)

Item	**Component**	**Reliability of the nine items**
* My parents always go to work.	0.620	0.715
* My parents are educated.	0.603	
*My parents can afford all the requirements that are essential for school.	0.677	
* My parents help me with homework.	0.582	
My parents always come for PTA meetings.	0.421	
My parents encouraged me to learn.	0.378	
My parents respond promptly when called to discuss my performance at school.	0.485	
My parents encouraged me to participate in co-curricular activities.	0.497	
*My parents pay my school fees promptly.	0.660	

* Valid items

From Table 4.16, out of the nine items, HE5, HE6, HE7, and HE8 loaded below 0.5 meaning that the four items were not valid meanwhile, five items namely; HE1, HE2, HE3, HE4, and HE9, loaded highly, and were regarded as

valid items of Home Environment (HE). The reliability test for the nine items in Table 4.16 ($\alpha = 0.715$) indicated an acceptable reliability coefficiency thus out of nine items, only five were regarded as reliable measures of HE.

4.5.3. Qualitative Results on HE and SAP

To understand Home Environment (HE), two questions were asked that is item three, Appendix II which was only responded to by the District Inspector of Schools (DIS), and item three in Appendix III, and item four for Appendices IV and V which were responded to by Board of Governors (BOG) members, Parents Teachers Association (PTA) members, Headteachers (HTR) and Teachers (TR) respectively. The first question is item three, Appendix II which was only responded to by the District Inspector of Schools (DIS) on what he would say about the home environment where the students come from. He stated that it was very challenging. *"The environment these children come from is questioned because a child who is at school lives with peers who are not going to class and therefore the socialization aspect affects those who are in school because they do not spare time to read books and therefore it affects."*

He also mentioned that involvement in economic activities such as fishing diverts the attention of students from their studies. *"……the environment dictates that fishing is the only economic activity in Madi- Okollo district therefore much of their time is spared to go for fishing so every day they give less time on their studies."*

Nevertheless, to him, the low socioeconomic status of the parents affects the students' academic performance. *"The low socioeconomic status of parents affects performance because of the vicious cycle of poverty in Madi-Okollo."*

The second question is for item three of Appendix III and item four for Appendices IV and V which were responded to by Board of Governors (BOG) members, Parents Teachers Association (PTA) members, Headteachers, and Teachers respectively on the kind of support parents offer to their children. From the interview, their responses were summarized as payment of school fees, offering guidance and counseling services, visiting their children at school, and attending parents' meetings for instance BOG1 stated that parents paid fees and gave scholastic materials. *"One of the support I have seen parents giving to their children is the payment of fees. Some of the parents give material things like books, clothing, etc."*

Other respondents such as PTA2 stated that parents offered guidance and counseling services and respondents such as BOG3 stated that parents visited their children at school and attended meetings. *"Parents attend meetings, pay school fees, buy scholastic materials, treat students when they fall sick, and visit their children at school."*

4.5.4 Correlation between Home Environment (HE) and Students' Academic Performance (SAP)

To find out if there was an association between, HE and SAP, I carried out a Correlation Analysis as shown in Table 4.17 below.

Table 4.17:

Correlation between HE and SAP

Correlations

		SAP	HE
SAP	Pearson Correlation	1	.395**
	Sig. (2-tailed)		.000
	N	192	180
HE	Pearson Correlation	.395**	1
	Sig. (2-tailed)	.000	
	N	180	193

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

The results in Table 4.17 suggested that HE was a significant positive correlate of SAP ($p < 0.05$). Thus, hypothesis Ho3 was rejected and the alternative which stated; *"there is a statistically significant relationship between home environment and students' academic performance,"* was accepted. The Pearson correlation of ($r = 0.395$, $P < 0.000$) which is less than ($p < 0.05$) level of significance implied that there was a reasonable association between the two variables which were positively correlated as improvement in HE factors were related to a significant change in SAP.

4.5.5 Simple Linear Regression Analysis of Students' Academic Performance (SAP) on Home Environment (HE).

To ascertain whether HE predicted SAP in the study, a Simple Linear Regression Analysis was run that is, SAP as the Dependent Variable was regressed on, HE, the third Independent Variable, and the results were as shown in Table 4.18.

Table 4.18:

Simple Linear Regression of Students' Academic Performance (SAP) on Home Environment (HE)

Home Environment	Standardized B	Significance P
	0.395	0.000

Adjusted $R^2 = 0.151$

$F = 32.958$, $p = 0.000$

The result from the table indicated a significant regression model ($F = 32.958$, $p = 0.000 < 0.05$) and Adjusted $R^2 = 0.151$) showing that HE explains 15.1% of the variation in SAP as shown in Table 4.18 above. This meant that Home Environment accounted for only 15.1% of the variation in students' academic performance leaving the remaining percentage to other factors.

4.6 Objective Four: Classroom Environment (CE) and Students' Academic Performance (SAP)

This section dealt with my fourth objective of the relationship between Classroom Environment CE (IV4) and Students' Academic Performance SAP (DV). In this section, the descriptive statistics of CE were given, the validity and reliability of CE items, qualitative description of CE, Correlation between CE and SAP, and Simple Linear Regression of CE on SAP was performed.

4.6.1. Classroom Environment (CE)

Under Classroom Environment CE, respondents were asked as to whether they freely expressed themselves in class, whether their teachers were friendly and respectful to them, whether teachers set clear rules in class, whether they were always punctual in class for lessons, whether their teachers ensure that all the students attend their lessons, listen to them and give adequate time to discuss in class. They were also asked if they cooperated with their fellow students when doing exercises in class, whether the furniture was adequate for all the students in their class, adequate space for students' learning, and also if instructional materials were adequate in their class for students to use during lessons.

Each of the eleven items (CE1-CE11, Appendix I, Section F) on the Classroom Environment was scaled using the Five-point Likert scale where 1 = Strongly Disagree; 2 = Disagree; 3 = Undecided; 4 = Agree; 5 = Strongly Agree. In Table 4.19 the related results were given.

Table 4.19:

Frequencies, Percentages, and Means of Items on Classroom Environment (CE)

Code CE	Classroom Environment		SA	A	UN	D	SD	SD	Mean	Overall Rating
CE1	I freely express myself in class.	Freq	92	90	3	9	11	1.05	4.2	Agree
		%	44.9	43.9	1.5	4.4	5.4			
CE2	Our teachers are friendly and respectful to us.	Freq	74	85	12	25	9	1.14	3.9	Agree
		%	36.1	41.5	5.9	12.2	4.4			
CE3	My teachers set clear rules in class.	Freq	64	92	12	24	11	1.15	3.9	Agree
		%	31.5	45.3	5.9	11.8	5.4			
CE4	I am always punctual in class for lessons.	Freq	81	79	11	16	8	1.08	4.1	Agree
		%	41.5	40.5	5.6	8.2	4.1			
CE5	My teachers ensure that all the students attend their lessons.	Freq	87	64	12	26	11	1.23	4.0	Agree
		%	43.5	32.0	6.0	13.0	5.5			
CE6	Our teachers listen to us.	Freq	51	86	15	32	18	1.27	3.6	Agree
		%	25.2	42.6	7.4	15.8	8.9			
CE7	Our teachers give us adequate time to discuss in class.	Freq	64	74	19	35	8	1.19	3.8	Agree
		%	32.0	37.0	9.5	17.5	4.0			
CE8	I cooperate with my fellow students when doing exercises in class.	Freq	105	90	2	5	3	.77	4.4	Agree
		%	51.2	43.9	1.0	2.4	1.5			
CE9	There is	Freq	57	55	5	44	42			

	adequate furniture for all the students in our class.	%	28.1	27.1	2.5	21.7	20.7	1.55	3.2	Un-decided
CE10	The space in our class is adequate for students' learning.	Freq	78	60	7	27	30	1.47	3.6	Agree
		%	38.6	29.7	3.5	13.4	14.9			
CE11	Instructional materials are adequate in our class for students to use during lessons.	Freq	46	39	15	51	55	1.55	2.9	Un-decided
		%	22.3	18.9	7.3	24.8	26.7			

The findings in Table 4.19 on if the participants expressed themselves in class, 44.4% freely expressed themselves in class as compared to 4.9% who did not. Considering the mean of 4.2 close to code 4 which corresponds to agree, the result suggested that respondents expressed themselves fully in class. On whether their teachers were friendly and respectful to them, 38.8% of the respondents stated that their teachers were friendly and respectful to them as compared to 8.3% whose teachers were not friendly and respectful to them. Considering the mean of 3.9 close to code 4 which corresponds to agree, the result indicated that most teachers of the respondents were friendly and respectful to them. Regarding whether their teachers set clear rules in class, 38.4% of the respondents said their teachers set clear rules in class as compared to 8.6% whose teachers did not. Considering the mean of 3.9 close to code 4 which corresponds to agree, the result indicated that the teachers of the respondents set clear rules in class.

When also asked if the participants were all the time punctual for class lessons, 41% were always punctual as compared to 12.3% who were not. Considering the mean of 4.1 close to code 4 which corresponds to agree, the result suggested that most of the respondents were always punctual in class for lessons. Respondents were also asked whether their teachers ensured that all of them attended their lessons, 37.75% stated that their teachers ensured that they attended all their lessons as compared to 9.25% of those whose teachers never bothered. Considering the mean of 4.0 close to code 4 which corresponds to agree, the result suggested that teachers of the respondents ensured that their students attended their lessons.

When asked if their teachers listened to them, 33.9% of the respondents stated that their teachers listened to them as compared to 12.35% whose teachers did not. Considering the mean of 3.6 close to code 4 which corresponds to agree, the result suggested that most teachers listened to their students. On whether their teachers gave them adequate time to discuss in class, 34.5% of the respondents stated that their teachers gave them adequate time to discuss in class as compared to 10.75% of those whose teachers did not. Considering the mean of 3.8 close to code 4 which corresponds to agree, the result suggested that teachers gave their students adequate time to discuss in class. They were also asked if they cooperated with their fellow students when doing exercises in class, 47.6% of the respondents stated that they cooperated with their fellow students as compared to 1.95% who did not. Considering the mean of 4.4 close to code 4 which corresponds to agree, the result indicated that most of the respondents cooperated with their fellow students when doing exercises in class.

On whether the furniture was adequate for all the students in their class, 27.6% of the participants indicated that there was adequate furniture for all the students in their class as compared to 21.2% where furniture was inadequate. Considering the mean of 3.2 close to code 3 which corresponds to undecided, the result suggested that a good number of the respondents were undecided as to whether there was adequate furniture in their class or not. Regarding whether the space in their class was adequate for students' learning, 34.15% of the respondents had adequate space for students' learning as compared to 28.3% who had inadequate space. Considering the mean of 3.6 close to code 4 which corresponds to agree, the result suggested that space in the classes was adequate for students' learning.

On whether instructional materials were adequate in their classes for students to use during lessons, 20.6% of the respondents had adequate instructional materials in their classes as compared to 25.8% who stated that instructional materials were inadequate in their classes for students to use during lessons. Considering the mean of 2.9 close to code 3 which corresponds to undecided, the result suggested that most of the respondents had inadequate instructional materials for students to use in classes during lessons.

To establish an overall representation of the way the participants evaluated themselves on CE, an aggregate index of CE = (CE1 + CE2 + CE3 + CE4 + CE5 + CE6 + CE7 + CE8 + CE9 + CE10 + CE11)/11 for the eleven items measuring CE was computed. The measures of central tendency on the same were the mean = 3.8 and median = 3.7. The Mean and median being very close suggested normal distribution of the findings as seen in Fig. 4.5.

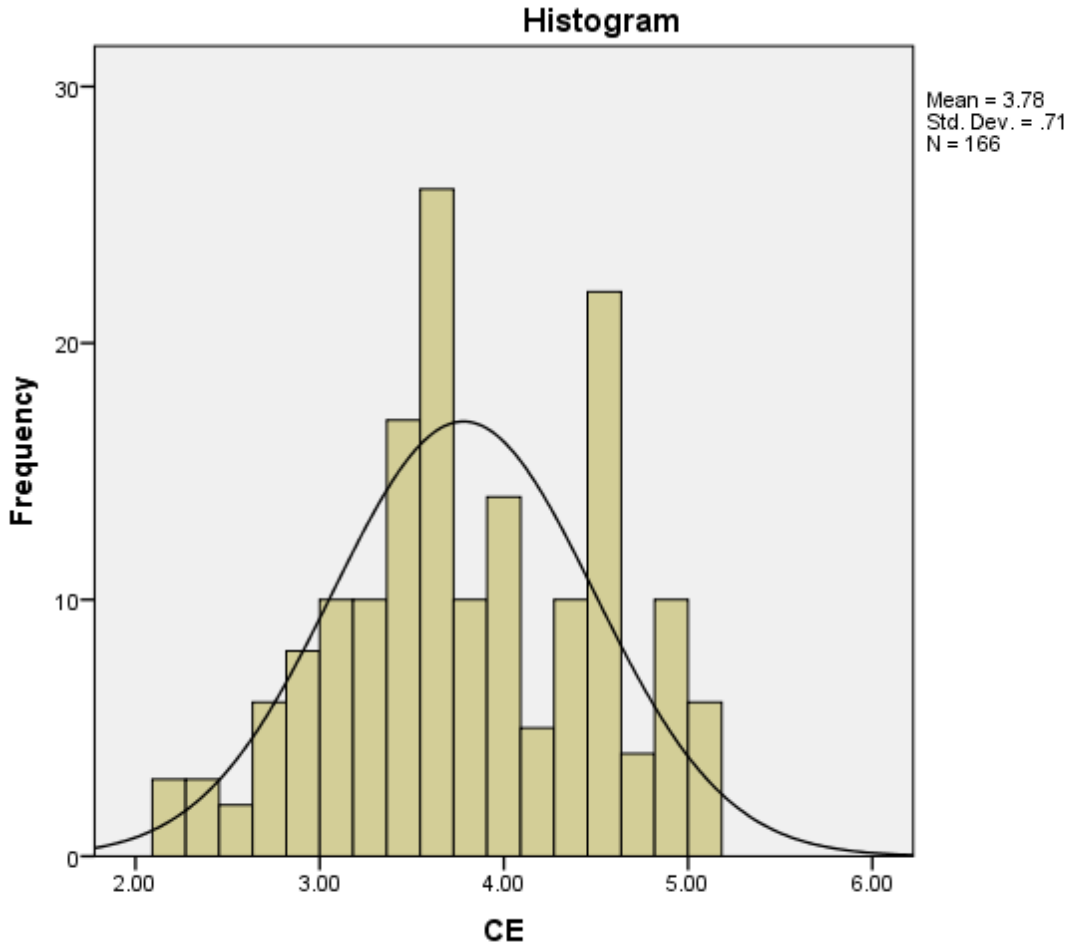

Figure 4.5:

Distribution of Responses on Classroom Environment (CE)

4.6.2 Validity and Reliability of Classroom Environment (CE) Items

To verify if the eleven items used to measure the CE component in Table 4.19 were valid, the items were subjected to a validity, and then a reliability test to confirm their trustworthiness and consistency using (Cronbach Alpha) as shown in Table 4.20.

Table 4.20:

Validity and Reliability of the Items on Classroom Environment (CE)

Item	Component	Reliability of the eleven Items
I freely express myself in class.	0.335	0.802
* Our teachers are friendly and respectful to us.	0.618	
*My teachers set clear rules in class.	0.659	
* I am always punctual in class for lessons.	0.533	
* My teachers ensure that all the students attend their lessons.	0.628	
*Our teachers listen to us.	0.511	
Our teachers give us adequate time to discuss in class.	0.487	
I cooperate with my fellow students when doing exercises in class.	0.492	
*There is adequate furniture for all the students in our class.	0.726	
*The space in our class is adequate for students' learning.	0.672	
*Instructional materials are adequate in our class for students to use during lessons.	0.657	

** Valid items*

From Table 4.20, only items CE1, CE7, and CE8 loaded below 0.5 meaning that they were not valid. Meanwhile eight items namely; CE2, CE3, CE4, CE5, CE6, CE9, CE10, and CE11 loaded highly ($\alpha > 0.5$), and the reliability test for the eight items in Table 4.20 ($\alpha = 0.802$) indicated a good reliability coefficiency hence the eight items were reliable measures of CE.

4.6.3 Qualitative Results on Classroom Environment

To understand Classroom Environment (CE), I asked the question which was responded to by all the participants that is the District Inspector of Schools (DIS), Board of Governors members (BOG), Parents Teachers Association (PTA) members, Headteachers and Teachers regarding the classroom environment in which the children learn in the school or district. From the interview, the respondents (DIS, BOG2, PTA1, and PTA3) gave varying opinions ranging from fair, okay, and inadequate for example PTA1 stated that the classrooms were fair. *"Classrooms are not bad as they have all the requirements for learning for example enough desks, and tables are enough."*

Similarly, BOG2 stated that the classroom environment was okay and well-set. *"The classroom environment is well set, well ventilated, chalkboard okay, charts displayed in the classrooms, desks are okay and students are less than 200 so no congestion and no problem with furniture."* However, to the DIS, the classroom facilities were inadequate. *"This is a terrible question and when I moved out for inspection, the status of the classrooms was not conducive, some do not have doors, windows were broken, classrooms were not enough, and the ones there are in a sorrowful state……."*

This view was also supported by PTA3 who indicated that; *"The classroom environment is not okay because the children are many, and they are congested. There are 3 or 4 children per desk. The enrolment is too much."*

4.6.4 Correlation between Classroom Environment (CE) and Students' Academic Performance (SAP)

To find out if there was an association between CE and SAP, a Correlation Analysis was conducted as shown in Table 4.21.

Table 4.21:

Correlation between Classroom Environment and Students' Academic Performance

Correlations

		SAP	CE
SAP	Pearson Correlation	1	.447**
	Sig. (2-tailed)		.000
	N	192	158
CE	Pearson Correlation	.447**	1
	Sig. (2-tailed)	.000	
	N	158	166

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

The results in Table 4.21 suggest that CE was a significant positive correlate of SAP ($p < 0.05$). Thus, hypothesis Ho4 was rejected and the alternative which states; *"there is a statistically significant relationship between classroom environment and students' academic performance,"* was accepted. The Pearson correlation of ($r = 0.447$, $P < 0.000$) which is less than ($p < 0.05$) level of significance implied that there was a reasonable association between the two variables which were positively correlated as improvement in CE factors were related to a significant change in SAP.

4.6.5 Simple Linear Regression Analysis of Students' Academic Performance (SAP) on Classroom Environment (CE).

To ascertain whether CE predicted SAP in the study, a Simple Linear Regression Analysis was run that is, SAP as the Dependent Variable was regressed on CE, the fourth independent variable and the results were as shown in Table 4.22.

Table 4.22:

Simple Linear Regression Analysis of SAP on CE

Classroom Environment	Standardized B	Significance P
	0.447	0.000

Adjusted $R^2 = 0.194$

$F = 38.864$, $p = 0.000$

The result from the table indicated a significant regression model ($F = 38.864$, $p = 0.000 < 0.05$) and Adjusted $R^2 = 0.194$) showing that CE explains 19.4% of the variation in SAP as given in Table 4.22. This meant that classroom environment accounted for only 19.4% of the variation in students' academic performance leaving the remaining percentage to other factors.

4.7 Multiple Linear Regression Analysis of SAP (DV) on SM, QTL, HE, and CE (IVs)

To determine which of the independent variables predicted Students' Academic performance (SAP) in the study, a Multiple Linear Regression Analysis was run that is, SAP was regressed on all the four IVs; Student Motivation (SM), Quality of Teaching and Learning (QTL), Home Environment (HE), and

Classroom Environment (CE), at once and the results were as shown in table 4.23.

Table 4.23:

Multiple Linear regression Analysis of SAP (DV) on SM, QTL, HE, and CE (IVs)

Independent Variables (IVs)	Standardized β	Significance P
SM	0.199	0.023
QTL	0.127	0.204
HE	0.244	0.004
CE	0.211	0.034

Adjusted R^2 **= 0.307**

F = 14.756 P = 0.000

Dependent Variable:
SAP
Predictors: (Constant),
CE, HE, SM, QTL

According to Table 4.23, all the four IVs; SM (β = 0.199, p = 0.023), QTL (β = 0.127, p = 0.204), HE (β = 0.244, p = 0.004), and CE (β = 0.211, p = 0.034), significantly predicted SAP (P < 0.05). This implies that all the four IVs under study make a contributing factor of only 30.7% of SAP and the remaining 69.3% of the overall total may be accounted for by other factors not considered in this study. Finally, the magnitudes of the respective betas (β) indicated that HE more significantly explained SAP followed by CE, SM, and QTL.

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS, AND RECOMMENDATIONS

5.0. Introduction

In this chapter, Discussions, Conclusions, and Recommendations were presented in the first, second, and third sections respectively according to the Objectives.

5.1. Discussion of findings

The Discussion was organized into the following sections as per the objectives of the study; Student Motivation, Quality of teaching and learning, Home environment, and classroom environment.

5.1.1. Student Motivation (SM) and SAP

In this research, my first Objective sought to study the relationship between student motivation and Students' academic performance in Madi-Okollo district secondary schools. From the first objective, the first hypothesis which stated, *"there is no statistically significant relationship between student motivation and students' academic performance,"* was formed. The result in Table 4.9 suggested that student motivation (SM) was a Significant Positive correlate of students' academic performance with a Pearson correlation coefficiency of ($r = 0.436$, $P = 0.000$) which is less than ($P < 0.05$) level of significance. Thus, hypothesis Ho1 was rejected in favor of the alternative which states *"there is a statistically significant relationship between student motivation and students' academic performance."* This implied that there was a reasonable association between the two variables which were positively correlated as improvement in SM factors were related to a significant change in SAP.

This finding agrees with those done by previous scholars on student motivation and students' academic performance for example Oriahi (2009) upon employing survey and interview methods to examine the motivation and academic performance of students in Edo State, Nigeria revealed that the motivation of students was very vital for better academic productivity. He further stated that students who are insufficiently motivated manifest weak academic performance and are likely to be discouraged from school.

He suggested that students should be academically motivated as this will go a long way in solving most of the problems faced in the education system and also increase students' academic performance. This was also in consonance with Muhammad et.al. (2015), who carried out a study on the impact of motivation on students' academic performance at the University of Sultan Zainal Abidin, Malaysia indicating a strong positive relationship between motivation and students' academic performance. They stated that motivation serves as a yardstick in predicting their performance.

This was again in line with the qualitative result where a good number of the respondents blamed the poor academic performance of students in the secondary schools of Madi-Okollo district on the inadequate student motivation in the schools for example respondents such as (HTR1, HTR2 & TR4) stated that student motivation was weak in the secondary schools of Madi-Okollo district. (Muhammad et.al. 2015) concurs with the above view that in the event of inadequate motivation to learn, the result of such learning would be unacceptable. The finding on the first objective of this study and the review of the related literature seemed to concur that student motivation was a very important component in ensuring students' academic performance.

Therefore, students need to be motivated both intrinsically and extrinsically as both ways are necessary for better academic performance, and the more the students are motivated, the better the chance of their academic performance.

5.1.2. Quality of Teaching and Learning (QTL) and SAP

My second objective was to find out the relationship between the quality of Teaching and Learning and Students' Academic Performance. From the objective was formed the hypothesis; *"There is no statistically significant relationship between quality of teaching and learning and students' academic performance"*. The findings in Table 4.13 suggested that QTL was a significant positive correlate of SAP with a Pearson correlation coefficiency of ($r = 0.437$, $P = 0.000$) which is less than ($P < 0.05$) level of significance. Thus, hypothesis Ho2 was rejected in favor of the alternative which states *"There is a statistically significant relationship between quality of teaching and learning and students' academic performance."* This implied that there was a reasonable association between the two variables which were positively correlated as improvement in QTL factors were related to a significant change in SAP.

This finding concurs with the finding of the previous studies conducted by Tadesse et.al. (2018), who used the qualitative approach to examine general views, opinions, observations, and insights of a variety of participants on the quality of teaching and learning, in Higher education in Ethiopia. They suggested that quality enhancement efforts gradually lead to quality assurance.

In agreement, Allexander (2013), who carried out a study to investigate the consequence of lectures' competence on Students' academic performance

among higher education and training students in the Gauteng Province of South Africa showed that subject knowledge, teaching skills, lecturer attendance, and lecturer attitude have a significant positive influence on students' academic performance. He further stated that providing training to teachers on particular components of lecturer competence can effectively enhance the quality of teaching and learning towards the achievement of high students' academic performance.

Amie-Ogan & Etuk (2020) argued that without teachers with relevant competence, educational facilities could not be used to facilitate the academic performance of students. They further added that the competencies of teachers can affect students' academic performances greatly because a competent teacher can manage the classroom, use a range of instructional materials, ensure effective use of instruction, adopt appropriate use of pedagogy, and effective communication for teaching and learning to take place.

In agreement, HTR1 believed that good SAP was a result of teacher competence and attainment of higher qualifications. He stated that most of the teachers in his school were weak and incompetent as a good number of them had not obtained higher qualifications.

On the contrary, Prasetio et.al (2017) who conducted a Study on lecturers' professional competence as well as its effect on the Academic Performance of Students in Indonesian Higher education stated that professional competency has no substantial association with Students' Academic Performance. To them, teachers' professional competency cannot make the students attain improved academic performance but rather with a combination of other factors such as learning facilities, motivational strategies, socio-economic background of the

students' families, parental role, and peer influence among others. They also believed that not any person regarded as a professional can do well as a lecturer.

This was in line with Bonney et.al. (2015), who carried out a study on the relationship between the quality of teachers and pupils' academic performance in the Sekondi Takoradi Metropolitan Assembly (STMA) Junior High Schools of the Western region of Ghana that even though the quality of teachers was high in terms of their academic and professional qualifications, it did not reflect much in the performance of the students.

In the same vein, Lydia & Migosi (2015) established that the academic qualification and experience of teachers do not substantially impact the Students' Academic Performance in Science, Mathematics, and Technology subjects.

It should therefore be noted that academic qualification and experience or professional competence of teachers does not automatically lead to improved students' academic performance but rather a balance between appropriate methods and the use of instructional materials.

5.1.3. Home Environment (HE) and SAP

Objective three sought to assess the relationship between Home Environment and students' academic performance. From this objective, was formed the third Hypothesis which stated; "*there is no statistically significant relationship between home environment and students' academic performance."* The result in Table 4.17 suggested that HE was a significant positive correlate of SAP with a Pearson correlation coefficiency of ($r = 0.395$, $P = 0.000$) which is less

than ($P < 0.05$) level of significance thus hypothesis Ho3 was rejected in favor of the alternative which states, "there *is a statistically significant relationship between home environment and students' academic performance."* This implied that there was a reasonable association between the two variables which were positively correlated as improvement in HE factors were related to a significant change in SAP.

This finding is in line with the finding of a previous study carried out by Obeta (2014), who researched home environmental features influencing the students' academic performance in Abia State, Nigeria. He stated that failure to provide adequate scholastic materials and the relaxed behavior of some parents in the course of educating their children as well as the educational and income level of the students' families influence students' academic performance. This view was also in agreement with Adoyo (2015) who indicated that the home environment influences the academic performance of primary school pupils in the English language in Alego-Usonga sub-county, Siaya County, Kenya.

Yvonne (2015), further added that as parental participation increased, students' academic performance scores in mathematics, reading, and social studies also increased and that when schools cooperate with families to aid learning, children tend to progress not only in school but also in life. Therefore, to her, parental participation was important in warranting a successful and fruitful school year for children, and parents who were actively involved in their children's homework fostered and encouraged academic excellence.

This was also in line with BOG3 who emphasized some of the roles parents play in an attempt to enhance the academic performance of students in the

secondary schools of Madi-Okollo district; "*Parents attend meetings, pay school fees, buy scholastic materials, treat students when they fall sick, and visit their children at school."*

Similarly, the DIS noted that for SAP to be improved in Madi-Okollo district, there was the need to improve the HE factors. According to him, the home environment where the children come from was very challenging and does not support learning. *"The environment these children come from is really questioned because a child who is at school lives with peers who are not going to class and therefore the socialization aspect affects those who are in school because they do not spare time to read books and therefore it affects."*

He also stated that involvement in economic activities such as fishing diverts the attention of students from their studies. *"……the environment dictates that fishing is the only economic activity in Madi- Okollo district therefore much of their time is spared to go for fishing so every day they give less time on their studies."* Nevertheless, to him, the low socioeconomic status of the parents affects the academic performance. *"The low socioeconomic status of parents affects performance because of the vicious cycle of poverty in Madi-Okollo."*

This suggested that for students' academic performance to be improved, there was the need for increased parental support to their children in terms of providing scholastic materials, visiting their children at school, and also attending meetings. Parents should also be in a position to improve their income base to meet the educational demands of their children at school.

5.1.4 Classroom Environment (CE) and SAP

Objective four sought to study the Relationship between Classroom Environment and Students' Academic Performance. From the fourth objective was formed the Hypothesis; *"there is no statistically significant relationship between classroom environment and students' academic performance".*

The results from Table 4.21 suggested that CE was a Significant positive correlate of SAP with a Pearson correlation coefficiency of ($r = 0.447$, $P = 0.000$) which is less than ($P < 0.05$) level of significance thus hypothesis Ho4 was rejected in favor of the alternative which states, "there *is a statistically significant relationship between classroom environment and students' academic performance."* This implied that the two variables are not independent of each other as there existed a reasonable association between them thus improvement in CE factors are related to SAP factors.

This tallies with the finding of a study carried out by Ramli et.al. (2018) who stated that teaching aids and hostels were the most vital facilities that influence students' academic performance. They noted that school facility structures included but were not limited to blocks of classrooms, libraries, workshops, laboratories, equipment, electricity, water, desks, chairs, audiovisual and visual which would most likely motivate students towards learning. They further stated the goal of providing a good facility at school was to improve the Teaching learning process thus promoting SAP.

In addition, Kamaruddin et.al (2009), who conducted research at the University of Putra, Malaysia revealed that housing facilities and the participation of the teacher positively correlate with SAP.

This was also in agreement with Hakizimana, (2016), who researched to determine the linkage between classroom management and students' academic performance in secondary schools in the Nyamagabe District of Rwanda and thus showed a positive relationship between classroom management and Students' Academic Performance.

Duruji et.al (2014), who conducted research in Ota, Covenant University (Nigeria) through a survey approach and descriptive analysis indicated that the quality of school structures and study environmental conditions or situations have a resilient impact on the Academic Performance of Students.

This was also in agreement with BOG2 who stated that the classroom environment in his school was conducive and well set and when supplemented with other factors would lead to better Students' Academic Performance; *"The classroom environment is well set, well ventilated, chalkboard okay……"*

On the contrary, when the classroom environment is not well set, students' academic performance is also expected to be poor. This was as per the DIS who stated that the classroom facilities were inadequate in the district. *"This is a terrible question and when I moved out for inspection, the status of the classrooms was not conducive, some do not have doors, windows were broken, classrooms were not enough, and the ones there are in a sorrowful state……."*

PTA3 also added that the enrolment was too much. *"The classroom environment is not okay because the children are many, and they are congested. There are 3 or 4 children per desk. The enrolment is too much."*

Ramli et.al. (2018) reinforced that inadequate physical facilities lead to adverse effects on students' interest to learn hence affecting their academic

performance. They further observed that when students have no access to standard facilities such as library equipment and adequate seats in the classroom, low students' academic performance is manifested.

Mwaniki (2012), suggested that employing a variety of teaching methods and the use of appropriate teaching and learning resources by a teacher means better students' academic performance as various assessment techniques influence academic performance. Phillias & Kennedy (2010) showed a positive relationship between the variables in a study carried out to examine the effect of teaching and learning resources on academic performance in secondary schools' mathematics in Bondo districts of Kenya. He stated that when teaching and learning resources are available, the academic performance of the students is boosted. availability of teaching and learning resources boosts the effectiveness of schools as the basic things which bring about good students' academic performance.

Therefore, to achieve better Students' Academic Performance, there is a need for conducive, well-set, spacious, and properly managed classrooms as poor facilities lead to poor students' academic performance, enhancement of discipline among the students, and improving teacher-student communication and availability of instructional materials.

5.2. Conclusions

The following conclusions were drawn based on the key findings as per the study objectives.

i. There is a significant positive correlation between Student Motivation (SM) and Students' Academic Performance (SAP) in Madi Okollo district secondary schools.

ii. There is a significant positive correlation between the Quality of Teaching and Learning (QTL) and Students' Academic Performance (SAP) in Madi Okollo district secondary schools.

iii. There is a significant positive correlation between Home Environment (HE) and Students' Academic Performance (SAP) in Madi Okollo district secondary schools.

iv. There is a significant positive correlation between Classroom Environment (CE) and Students' Academic Performance (SAP) in Madi Okollo district secondary schools.

Therefore, based on the conclusions as per the study objectives, it can be asserted that the four variables used in the study that is Student Motivation (SM), Quality of Teaching and Learning (QTL), the Home Environment (HE), and the Classroom Environment (CE) determine Students' Academic Performance as postulated by Walberg.

5.3 Recommendations

The following recommendations were made from the conclusions;

i. School administrators, the Board of Governors, and district authorities should give awards like the provision of scholastic materials, and offering scholarships in terms of fees payment to students who perform well to motivate them.

ii. The Ministry of Education and Sports should give scholarships to teachers and headteachers to acquire higher qualifications from

teacher education institutions to build their capacity to effectively improve the quality of teaching and learning towards the attainment of high students' academic performance.

iii. Parents should endeavor to encourage their children to read and do their homework at home by supervising them and involving themselves personally in homework assignments rather than spend their time on things that would not benefit them academically and also come up with strategies that will help improve their income to enable the sustainable provision of basic and school needs.

iv. Finally, the school administration, Board of Governors, and the Ministry of Education and Sports should be able to avail the necessary facilities like textbooks, furniture, and other teaching and learning aids in the classroom to create the enabling environment for students' general development.

5.4 Areas for Further Research

The researcher suggests two areas for Further Study.

1. To determine if teacher qualification influences Students' Academic Performance in Madi-Okollo District Secondary Schools.
2. Since the study explored only four of Walberg's factors and Students' Academic Performance in Madi-Okollo district secondary schools, similar studies should include all the nine factors as outlined by Walberg.
3. There is a need to undertake a study that would employ the qualitative method to exhaustively infer responses from the participants since the quantitative method was dominantly used in the study.

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APPENDICES

APPENDIX I: QUESTIONNAIRE FOR STUDENTS

Dear Student,

I, Adiga Benard, have selected you to participate in the study entitled; "Walberg's Factors and Students' Academic Performance in Madi-Okollo District Secondary Schools". I, thus urge you to spare for me some time and help to fill in this questionnaire. The research is solely for study purposes, therefore, the data that you give will be regarded as confidential and your response is greatly valued.

Section A: Background Information (BI)

Instructions

Tick inside the box for the most appropriate option that best suits your opinion.

BI 1. Gender: 1. Male ☐ 2. Female ☐

BI 2. The age bracket of respondents.

Age	1. 14-15 years	2. 16-17yrs	3. 18-19yrs	4. 20-21yrs	5. Above 21yrs
Tick					

BI 3. Class: 1. S3 ☐ 2. S4 ☐

Section B: Students' Academic Performance (SAP)

In each of the statements below, tick the most appropriate answer. The following are the scale: 1. Strongly Disagree (SD), 2. Disagree (D), 3. Undecided (UN), 4. Agree (A), and 5. Strongly Agree (SA).

Code SAP	Students' Academic Performance	Responses				
		SA	A	UN	D	SD
SAP1	I perform well on tests.					
SAP2	I am always ready for exams.					
SAP3	I actively participate in class.					
SAP4	I perform well in exercises and assignments.					
SAP5	I perform well in all the subjects.					
SAP6	I like doing homework to improve my performance.					
SAP7	I always work hard.					
SAP8	I engage in-class debates to improve my performance.					

Section C: Students Motivation (SM)

In each of the statements below, tick the most appropriate answer. The following are the scale: 1. Strongly Disagree (SD), 2. Disagree (D), 3. Undecided (UN), 4. Agree (A), and 5. Strongly Agree (SA).

Code SM	Student Motivation	Responses				
		SA	A	UN	D	SD
SM1	I always attend lessons in all the subjects.					
SM2	I always ask my teachers for help.					
SM3	I rarely give up.					
SM4	I study on my own.					
SM5	I put more effort when difficult exercises are given.					
SM6	I enjoy discussions on all the subjects.					
SM7	Learning new things about the subjects is interesting and enjoyable to me.					
SM8	I like reading magazines and books connected to the subjects taught in class.					
SM9	I put enough effort into learning all the subjects.					
SM10	I spent a lot of time learning what is taught in class.					
SM11	I always aim at scoring highly in all the subjects.					

Section D: Quality of Teaching and Learning (QTL)

In each of the statements below, tick the most appropriate answer. The following are the scale: 1. Completely Disagree (CD), 2. Disagree (D), 3. Neutral (N), 4. Agree (A), and 5. Completely Agree (CA).

Code QTL	**Quality of Teaching and Learning.**	**Responses**				
		CA	**A**	**N**	**D**	**CD**
QTL1	I am always ready for my lessons.					
QTL2	My teachers make me aware of the skills to be acquired in their subjects.					
QTL3	My teachers use material resources to facilitate learning.					
QTL4	Our teachers attend to us and respond clearly to questions asked in class.					
QTL5	I am aware of all the objectives of learning the subjects.					
QTL6	My teachers are very creative when teaching in class.					
QTL7	My teachers can teach all the topics in their subjects.					
QTL8	My teachers are aware of the methods of teaching their subjects.					
QTL9	My teachers organize seminars on their subjects.					
QTL10	My teachers are qualified to teach their subjects.					
QTL11	Our teachers use a variety of assessment methods for us.					

Section E: Home Environment (HE)

In each of the statements below, tick the most appropriate answer. The following are the scale*:* 1. Strongly Disagree (SD), 2. Disagree (D), 3. Undecided (UN), 4. Agree (A), and 5. Strongly Agree (SA).

Code HE	Home Environment	Responses				
		SA	A	UN	D	SD
HE1	My parents always go to work.					
HE2	My parents are educated.					
HE3	My parents can afford all the requirements that are essential for school.					
HE4	My parents help me with homework.					
HE5	My parents always come for PTA meetings.					
HE6	My parents encouraged me to learn.					
HE7	My parents respond promptly when called to discuss my performance at school.					
HE8	My parents encouraged me to participate in co-curricular activities.					
HE9	My parents pay my school fees promptly.					

Section F: Classroom Environment (CE)

In each of the statements below, tick the most appropriate answer. The following are the scale*:* 1. Strongly Disagree (SD), 2. Disagree (D), 3. Undecided (UN), 4. Agree (A), and 5. Strongly Agree (SA).

Code CE	Classroom Environment	Responses				
		SA	A	UN	D	SD
CE1	I freely express myself in class.					
CE2	Our teachers are friendly and respectful to us.					
CE3	My teachers set clear rules in class.					
CE4	I am always punctual in class for lessons.					
CE5	My teachers ensure that all the students attend their lessons.					
CE6	Our teachers listen to us.					
CE7	Our teachers give us adequate time to discuss in class.					
CE8	I cooperate with my fellow students when doing exercises in class.					
CE9	There is adequate furniture for all the students in our class.					
CE10	The space in our class is adequate for students' learning.					

CE11	Instructional materials are adequate in our class for students to use during lessons.					

Thank you

Signed……...

Research Student

APPENDIX II: KEY INFORMANT INTERVIEW GUIDE FOR DISTRICT INSPECTOR OF SCHOOLS

Dear Respondent,

I am Adiga Benard, a student of Kyambogo University pursuing a study. You have been selected to participate in the study entitled; “Walberg’s Factors and Students’ Academic Performance in Madi-Okollo District Secondary Schools". The research is solely for academic purposes, therefore, the information that you give will be treated as confidential and your response is greatly valued.

I, therefore, request you to spare some time and help provide information. Your response is highly appreciated.

1. Comment on the students’ academic performance in the secondary schools in your district.
   (b) In your opinion, what do you think are the factors affecting students’ academic performance in the district?
   (c) What do you think can be done to improve the academic performance of students in secondary schools in Madi- Okollo District?
2. What is your view about teacher quality and competence in the district?
3. What can you say about the home environment where students come from?
4. Tell me about the classroom environment in the district.

Thanks

APPENDIX III: KEY INFORMANT INTERVIEW GUIDE FOR BOG/PTA

Dear Respondent,

I am Adiga Benard, a student of Kyambogo University pursuing a study. You have been selected to participate in the study entitled; “Walberg’s factors and Students’ Academic Performance in Madi-Okollo District Secondary Schools". The research is solely for academic purposes, therefore, the information that you give will be treated as confidential and your response is greatly valued.

I, therefore, request you to spare some time and help provide information. Your response is highly appreciated.

1. (a) Comment about the students’ academic performance in your school.
   (b) What according to you are the factors affecting students’ academic performance in your school?
   (c) What do you think can be done to improve the academic performance of students in your school?
2. What is your view about the quality and competence of teachers in your school?
3. What kind of support do parents in your school offer to their children?
4. Tell me about the classroom environment in which your children learn in the school.

Thanks

APPENDIX IV: KEY INFORMANT INTERVIEW GUIDE FOR HEADTEACHERS

Dear Respondent,

I am Adiga Benard, a student of Kyambogo University pursuing a study. You have been selected to participate in the study entitled; “Walberg’s Factors and Students’ Academic Performance in Madi-Okollo District Secondary Schools". The research is solely for academic purposes, therefore, the information that you give will be treated as confidential and your response is greatly valued.

I, therefore, request you to spare some time and help provide information. Your response is highly appreciated.

1. (a) Comment about the students’ academic performance in your school.
   (b) What according to you are the factors affecting students’ academic performance in your school?
   (c) What do you think can be done to improve the academic performance of students in your school?
2. What can you say about student motivation in your school?
3. What is your view about the quality and competence of teachers in your school?
4. What kind of support do parents in your school offer to their children?
5. Tell me about the classroom environment in which your children learn in the school.

Thanks

APPENDIX V: KEY INFORMANT INTERVIEW GUIDE FOR TEACHERS

Dear Student,

I am Benard Adiga, a student of Kyambogo University pursuing a study. You have been selected to participate in the study entitled; "Walberg's Factors and Students' Academic Performance in Madi-Okollo District Secondary Schools*"*. The research is solely for academic purposes, therefore, the information that you give will be treated as confidential and your response is greatly valued.

I, therefore, request you to spare some time and help provide information. Your response is highly appreciated.

1. (a) Comment about your student's academic performance in this school.
   (b) What according to you are the factors affecting students' academic performance in this school?
   (c) What do you think can be done to improve the academic performance of students in this school?
2. What can you say about student motivation in this school?
3. What is your view about the quality and competence of teachers in this school?
4. What kind of support do parents in this school offer to their children?
5. Tell me about the classroom environment in which children learn in this school.

Thank you for your time

APPENDIX VI: SAMPLE SIZE DETERMINATION TABLE

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	00000	384

Source: Krejcie, R.V. & Morgan, D.W. (1970).

APPENDIX VII: INTRODUCTORY LETTER FROM KYAMBOGO UNIVERSITY

KYAMBOGO UNIVERSITY
P. O. BOX 1, KYAMBOGO – KAMPALA, UGANDA
TEL: +256-0414-285037/285001, www. Kyambogo.ac.ug
SCHOOL OF EDUCATION
Department of Educational Planning and Management

Date: 26th April 2022

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: BENARD ADIGA REG NO: 17/U/14275/GMED/PE

This is to certify that **BENARD ADIGA REG NO: 17/U/14275/GMED/PE** is a student in our Department pursuing a Master of Education in Policy, Planning and Management. He is carrying out research as one of the requirements of the course. He requires data and any other information on this topic titled:

"WALBERG'S FACTORS AND STUDENTS' ACADEMIC PERFORMANCE IN MADI-OKOLLO DISTRICT SECONDARY SCHOOLS"

Any assistance accorded to him is highly welcome. He is strictly under instructions to use the data and any other information gathered for research purposes only.

Thank you.

Assoc. Prof. George Wilson Kasule
HEAD OF DEPARTMENT

KYAMBOGO UNIVERSITY P.O. BOX 1, KYAMBOGO 26 APR 2022 HEAD OF DEPARTMENT EDUCATION PLANNING & MANAGEMENT

APPENDIX VIII: PLAGIARISM REPORT

WALBERG'S FACTORS AND STUDENTS' ACADEMIC PERFORMANCE IN MADI-OKOLLO DISTRICT SECONDARY SCHOOLS

by Benard Adiga

Submission date: 02-Jun-2023 06:15AM (UTC+0100)
Submission ID: 2107234064
File name: ADIGA_RESEARCH_REPORT_MAY_24-2023.docx (773.78K)
Word count: 27455
Character count: 148522

WALBERG'S FACTORS AND STUDENTS' ACADEMIC PERFORMANCE IN MADI-OKOLLO DISTRICT SECONDARY SCHOOLS

ORIGINALITY REPORT

19%	18%	7%	%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	ir.kiu.ac.ug Internet Source	2%
2	erepository.uonbi.ac.ke Internet Source	1%
3	ir-library.egerton.ac.ke Internet Source	1%
4	erepository.mkuit.ac.rw Internet Source	1%
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