
FACULTY OF SCIENCE AND EDUCATION

DEPARTMENT OF MATHEMATICS

FINAL YEAR RESEARCH REPORT

**“THE RELATIONSHIP BETWEEN STUDENTS’ STUDY HABITS AND
PERFORMANCE IN MATHEMATICS IN MBALE CITY”.**

BY

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BU/UP/2023/1733

**A RESEARCH REPORT SUBMITTED TO THE DEPARTMENT OF
MATHEMATICS FOR PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE WITH
EDUCATION OF BUSITEMA UNIVERSITY**

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MAY, 2026

DECLARATION

I Crispus Mugamba, declare that this research report entitled is my original work. "The relationship between students' study habits and performance in mathematics in Mbale City".

To the best of my knowledge, it has not been submitted for any academic award in any other university or institution of higher learning.

Where the works of other people have been used, due acknowledgements have been made in accordance with academic rules and ethics.

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2026/09/04 13:05

APPROVAL

This research report has been submitted for examination with my approval as the designated University

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DEDICATION

This work is dedicated to my beloved parents, Mr. Mugamba Stephen and Ms. Nabulo Coni, for their tireless sacrifices, prayers, and for laying the foundation of my education.

To my siblings. Mugamba Lameka, Nafuna Barbra, Kimekye Samson Mugamba, Mugamba Ezra, Mugamba Joab, Mugamba Nathan, and Wasagali Tabitha may this achievement inspire you to always aim for excellence.

ACKNOWLEDGEMENTS

The completion of this research study would not have been possible without the guidance and support of many individuals.

First, I thank the Almighty God for the gift of life and the wisdom to complete this project.

I am deeply grateful to my supervisor for the academic mentorship provided throughout this study. My sincere thanks also go to the administrations of Wanale View Secondary School, Mbale High School, Nkoma Secondary School, and St. Paul's College for allowing me to conduct fieldwork within their institutions.

A special word of thanks goes to my inner circle of friends. Musitwa Amos Fred, Tiyo Grant, Semakula

Raymond, Naguyo Gerald, Tatambuka Sos Peter, Wasswa Asherif, Chambya Alex, Mukuve Laben, Kirikumwino Harriet, Aching Molly Crissy and Okolong Charles. Your encouragement and the intellectual discussions we shared kept me motivated during the long hours of data coding and analysis.

Finally, I appreciate my family, especially my father Mugamba Stephen and my mother Nabulo Coni, for their unwavering belief in my potential.

Crispus Mugamba May 2026

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ABSTRACT

This research study investigated the relationship between study habits and Mathematics performance among secondary school students in Mbale City, Uganda. The investigation was prompted by consistent academic challenges in quantitative subjects within the region's urban centers. The study was guided by three specific objectives. to assess the prevalence of various study habits, to evaluate current Mathematics achievement levels, and to determine the extent to which these habits influence academic outcomes.

The research employed a descriptive correlational research design, utilizing a quantitative approach to ensure objective measurement of variables. Data was collected in May 2026 using a multi-stage sampling technique. A total of 322 structured questionnaires were distributed to Senior Three and Senior Four students across four purposively selected schools. Wanale View School, Mbale High School, Nkoma Secondary School, and St. Paul's College. A total of 282 valid responses were retrieved, representing a robust response rate of 87.6%.

The findings revealed a significant performance gap, with 56% of students scoring in the Basic (D) or Elementary (E) categories. Analysis of study habits indicated a widespread deficiency in formal time management, as many students reported lacking personal study timetables. However, a positive trend was noted in digital discipline, with a majority of learners avoiding electronic distractions during revision. Crucially, 88.3% of respondents expressed a firm belief that their personal study routines were the primary determinant of their current grades.

The study concludes that while students possess a high level of self-awareness regarding their academic routines, the absence of structured planning and a "resilience deficit" in problem-solving hinders achievement. The research recommends that school administrators implement mandatory study skills workshops and establish "Mathematics Clinics" to encourage professional consultation. Furthermore, the study suggests that shifting from peer-dependent learning to teacher-guided revision is essential for moving students from basic competency to academic excellence.

Keywords. Study Habits, Mathematics Performance, Mbale City, Time Management, Secondary Education, Uganda

CHAPTER ONE. INTRODUCTION/ BACKGROUND TO THE STUDY

1.0 Introduction

This chapter presents the background of the study, the statement problem, the purpose of study, specific objectives, research questions, significance of study, scope of the study, and definitions of key operational terms.

1.1 Background of the study

Mathematics is globally recognized as the foundational pillar of science, technology, engineering, and economic innovation. Proficiency in the subject is no longer merely a requirement for academic progression but has become a vital prerequisite for general quantitative literacy in an increasingly data-driven 21st-century global economy (OECD, 2023). In the Ugandan context, the Ministry of Education and Sports has prioritized Mathematics by integrating it as a core component of the New Lower Secondary Curriculum. This strategic shift aims to foster critical thinking, logical reasoning, and practical problem-solving skills, which are deemed necessary for national transformation, industrialization, and the achievement of Vision 2040 (NCDC, 2020).

Despite the prioritized role of the subject, academic performance in Mathematics at the secondary level in Uganda has remained a persistent challenge for educators and policymakers alike. National assessment reports from the Uganda National Examinations Board (UNEB, 2024) consistently indicate that while overall pass rates in other subjects have shown improvement, a substantial number of candidates continue to struggle with Mathematics questions that require higher-order application and analytical reasoning. This performance gap is particularly pronounced in urban centers such as Mbale City. In these settings, students exist within a complex interplay of high academic expectations and a modern urban environment that presents both opportunities and significant cognitive challenges.

While poor performance has historically been attributed to external and institutional factors—such as inadequate laboratory equipment, high teacher-to-student ratios, or lack of textbooks—contemporary educational research is increasingly focusing on internal, student-centered variables. Specifically, study habits have emerged as a primary determinant of academic success (Nuhu, 2023). Study habits are defined as the structured, repetitive, and intentional routines that students adopt to acquire, process, and retain knowledge. These habits encompass several dimensions,

including time management, focused concentration, active problem-solving, and regular consultation with peers and instructors.

In Mathematics, the quality of these habits is exceptionally critical due to the subject's hierarchical and cumulative nature. Unlike subjects that may allow for rote memorization, Mathematics requires "distributed practice," where mastering a complex topic like trigonometry or calculus is strictly dependent on the disciplined, repetitive mastery of foundational algebraic and geometric concepts.

In the specific urban landscape of Mbale City, the development of such disciplined habits has faced new challenges in the 2020s. The rapid proliferation of digital platforms and social media has created a culture of "constant connectivity," which frequently encroaches upon dedicated revision time (Namusisi & Sekiwu, 2022). While digital tools offer vast educational potential, their nonacademic use among secondary school learners is often linked to fragmented concentration spans and poor time management. This environment necessitates a closer look at how students navigate these distractions to maintain effective study routines.

Furthermore, the transition to a competency-based curriculum in Uganda places a greater emphasis on the learner's ability to take charge of their own educational journey. This shift assumes that students possess the necessary study skills to engage with learner-centered materials independently. However, there remains a scarcity of localized empirical data in Eastern Uganda that explores whether students have adjusted their study routines to meet these new demands.

Despite the visible struggle with Mathematics grades in Mbale's schools, little research has been conducted to statistically correlate specific habits such as the use of personal timetables or group discussions with actual grade outcomes in the post-2020 educational era. This study, therefore, investigated the relationship between these study habits and Mathematics performance during the 2026 academic year, seeking to provide a localized blueprint for evidence-based interventions that can help students, teachers, and parents in Mbale City bridge the performance gap.

1.2 Statement of the Problem

Despite the strategic prioritization of Mathematics by the Ministry of Education and Sports and the rollout of the New Lower Secondary Curriculum designed to foster practical competency,

academic achievement in the subject among secondary school students in Mbale City has remained persistently low. National assessment data and regional reports indicate a chronic trend of underperformance, where a significant majority of learners fail to attain credit-level proficiency in Mathematics. This performance gap is particularly concerning given that these students are situated in an urban educational hub with relatively better access to instructional materials and qualified teaching staff compared to rural districts.

The persistence of this problem suggests that the root cause may not lie solely in external institutional factors, but rather in the internal academic behaviors of the learners. Preliminary observations and educational reports from Eastern Uganda indicate that many students have not developed the disciplined, structured study routines such as consistent time management, focused concentration, and active problem-solving required to master the cumulative nature of the mathematics syllabus. Instead, there is a visible prevalence of ineffective habits, such as "cramming" shortly before examinations and a high degree of susceptibility to urban distractions, including the excessive use of social media and digital entertainment.

If the relationship between these specific study habits and Mathematics performance is not empirically investigated and addressed, the cycle of academic failure is likely to continue. This would not only lead to a waste of educational resources but also result in a significant number of students in Mbale City being excluded from science-based career paths and higher education opportunities, ultimately hindering the region's contribution to Uganda's technological and economic transformation. Consequently, there was an urgent need to provide localized empirical evidence that could serve as a blueprint for students, teachers, and school administrators to implement habit-modification strategies. This study, therefore, sought to address this gap by examining how study habits influenced the mathematics grades of secondary school students in Mbale City during the 2026 academic year.

1.3 Purpose of the Study

The purpose of this study was to examine the relationship between students' study habits and their academic performance in Mathematics among selected secondary schools in Mbale City.

1.4 Research Objectives

The study was guided by the following objectives.

1. To identify the common study habits employed by Senior Three and Senior Four students in Mbale City.
2. To assess the current level of academic performance in Mathematics among secondary school students in Mbale City.
3. To determine the relationship between specific study habit dimensions (time management, concentration, and practice) and Mathematics performance.
4. To suggest evidence-based strategies for improving students' study habits to enhance Mathematics achievement.

1.5 Research Questions

1. What are the common study habits employed by secondary school students in Mbale City?
2. What is the current level of academic performance in Mathematics among these students?
3. What is the relationship between study habits and performance in Mathematics?
4. What strategies can be implemented to improve students' study habits to enhance Mathematics performance?

1.6 Significance of the Study

The findings of this study are expected to be of immense value to several stakeholders within the education sector in Mbale City and Uganda at large.

To the Students. The study provides learners with empirical evidence on how specific behaviors, such as consistent practice and time management, directly correlate with higher grades. It serves as a self-assessment tool for students to identify and rectify poor study routines.

To the Teachers. The results offer educators a basis for integrating "study-skills training" into their pedagogical approaches. By understanding the link between habits and performance, teachers can better guide students on how to revise Mathematics effectively under the New Lower Secondary Curriculum.

To School Administrators. The study provides a blueprint for institutional interventions, such as the creation of supervised prep sessions and the establishment of "Mathematics Clinics" or clubs that foster peer-assisted learning.

To Parents and Guardians. It highlights the critical role of the home environment. The findings encourage parents to provide quiet study spaces and monitor the use of digital devices that often serve as urban distractions.

To Policy Makers and NCDC. The study contributes localized data from an urban setting in Eastern Uganda, helping the National Curriculum Development Centre evaluate how students are adapting to the self-led learning demands of the competency-based curriculum.

1.7 Scope of the Study

1.7.1 Geographical Scope

The study was conducted within Mbale City, focusing specifically on selected secondary schools located in the Industrial and Northern Divisions. This area was chosen due to its high density of schools and its unique urban environment, which presented a mix of academic resources and significant distractions (such as social media and urban entertainment) for the student population.

1.7.2 Content Scope

The study was restricted to investigating the relationship between students' study habits (the Independent Variable) and their academic performance in Mathematics (the Dependent Variable). Study habits were decomposed into four dimensions: time management, concentration/environment, active study techniques, and consultation habits. Performance was measured based on termly grades and competency scores as recorded in official school records.

1.7.3 Population Scope

The study specifically targeted Senior Three (S.3) and Senior Four (S.4) students. This population was selected because these learners had been exposed to the mathematics curriculum for a significant duration and were at a critical stage where study habits were firmly established in preparation for national examinations.

1.7.4 Time Scope

The research process, including the development of instruments, the pilot study, and the primary data collection phase, was conducted between January 2026 and April 2026.

1.8 Definition of Key Terms

Study Habits. These are the habitual and intentional routines adopted by a learner to facilitate the acquisition, retention, and application of knowledge. In this study, it refers specifically to how students manage their time and focus when dealing with Mathematics.

Academic Performance. This refers to the level of achievement reached by a student in a specific subject area, typically represented by grades (A to E) or numerical scores derived from standardized assessments and classroom tests.

Mathematics. A core subject in the Ugandan secondary school curriculum that involves the study of numbers, quantities, shapes, and patterns through logical reasoning and problem-solving.

Time Management. The process of planning and exercising conscious control over the amount of time spent on specific study activities to increase efficiency and productivity.

Concentration. The mental effort directed toward a specific mathematical task while ignoring external distractions like noise, television, or mobile phone notifications.

Urban Distractions. External social or technological factors prevalent in a city setting (e.g., social media, loud music, urban centers) that compete with a student's attention during dedicated study hours.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The literature review provides a comprehensive and critical examination of existing scholarly works, theoretical frameworks, and empirical research related to study habits and their impact on mathematics achievement. This chapter is structured to first establish the theoretical foundations of the study and subsequently explore the literature based on the specific research questions regarding study habits and academic achievement in the context of Mbale City.

2.1 Theoretical Framework

This research was grounded in two prominent psychological theories that explain how student behaviors are formed and how they influence academic outcomes.

2.1.1 The Theory of Planned Behavior (TPB)

Developed by Icek Ajzen (1991), the Theory of Planned Behavior (TPB) argues that human action is driven by three core cognitive considerations: attitudes, subjective norms, and perceived behavioral control.

Attitude toward the Behavior. This refers to the degree to which a student in Mbale City evaluates regular mathematics study as favorable or beneficial for their future career prospects.

Subjective Norms. These represent the perceived social pressures exerted by influential figures such as parents, teachers, and peers to excel in mathematics.

Perceived Behavioral Control (PBC). This is the student's belief in their internal ability to manage time and resources effectively to meet academic demands.

In this study, TPB was used to predict a student's intention to engage in rigorous study habits. For instance, a high level of perceived behavioral control directly correlated with better time management, which is a fundamental requirement for mastering the cumulative nature of the mathematics syllabus.

2.1.2 Social Cognitive Theory (SCT)

Albert Bandura's Social Cognitive Theory emphasizes the critical role of self-efficacy—the individual's belief in their capacity to execute the behaviors necessary to achieve specific performance goals.

Self-Efficacy in Mathematics. Students possessing high self-efficacy are more likely to persist when faced with challenging equations and are prone to spending significantly more time on active practice.

Reciprocal Determinism. SCT posits a triadic interaction between behavior (study habits), personal factors (self-efficacy), and environmental factors (school and home support).

This theoretical perspective suggested that consistent failure in mathematics often stems from a "vicious cycle" where low self-efficacy leads to the development of poor study habits, further cementing academic struggle among secondary learners.

2.2 Literature Related to Research Question 1. Common Study Habits Employed by Students

Study habits are a multidimensional construct reflecting the repetitive routines students follow to acquire mathematical knowledge. Literature decomposes these habits into several critical components.

2.2.2 Time Management

This involves the ability to schedule dedicated study periods and adhere strictly to a routine. Nuhu (2023) observed that in Eastern Uganda, students who followed a written timetable showed higher levels of academic discipline. In mathematics, "spaced practice" studying in shorter, consistent bursts is recognized as superior to "cramming" for long-term retention.

2.2.3 Concentration and Environment

The ability to remain focused by avoiding internal and external distractions is essential for processing complex logical steps. Namusisi and Sekiwu (2022) argued that urban students in Uganda faces unique "attention-switching costs" due to the proximity of social media and urban entertainment. Deep work in mathematics requires uninterrupted concentration to allow the brain to process complex logical proofs.

2.2.4 Active vs. Passive Techniques

Active study habits involve solving problems, self-testing, and explaining concepts to others. In contrast, passive habits involve the mere reading of notes. International findings emphasize that since mathematics is a skill-based subject, passive habits are almost entirely ineffective for longterm mastery (OECD, 2023).

2.3 Literature Related to Research Question 2. Levels of Academic Performance in Mathematics

Academic performance is traditionally quantified through standardized examination results or end-of-term grades.

2.3.1 National and Regional Context

Reports from the Uganda National Examinations Board (UNEB, 2024) consistently indicate that mathematics remains a challenging subject nationally. While overall literacy rates are improving, quantitative competencies remain low. Performance is often categorized into levels.

1. Exceptional/Outstanding (A-B). Demonstrates high-order analytical skills.
2. Satisfactory/Basic (C-D). Indicates foundational knowledge but limited application ability.
3. Elementary (E). Reflects a failure to grasp core mathematical principles.

2.3.2 Local Context (Mbale City)

Similar to the national trend, students in Mbale City continue to record varying performance levels. Local literature suggests that while urban schools have better access to teachers, the "performance ceiling" is often lowered by the lack of independent study habits among students (Nuhu, 2023).

2.4 Levels of Academic Performance in Mathematics (Research Question 2)

Academic performance in Mathematics is the measurable evidence of a learner's cognitive mastery over the curriculum. In the Ugandan context, this is quantified through standardized assessment scores and competency levels.

2.4.1 The National Performance Landscape (UNEB, 2024) The Uganda National Examinations Board (UNEB, 2024)

Reports indicated that Mathematics remained a critical bottleneck for secondary school learners. While the New Lower Secondary Curriculum was designed to move away from rote learning

toward competency-based assessment, the 2024 data revealed that a significant percentage of candidates still struggled with the application of mathematical logic in real-world scenarios.

Nationally, performance was skewed toward the "Basic" and "Elementary" categories, with a minority of students reaching the "Exceptional" (A) or "Outstanding" (B) tiers. In Mbale City, the transition to these new assessments in 2024 highlighted a "competency gap" "where students could perform basic calculations but failed when required to interpret complex data sets or solve integrated problems.

2.4.2 The Urban-Regional Performance Disparity

Literature suggests that urban centers like Mbale City should theoretically outperform rural areas due to better access to instructional materials and qualified teachers. However, UNEB (2024) data suggested that this advantage was often neutralized by "urban-induced academic laxity." This phenomenon occurs when students in well-resourced urban schools rely too heavily on classroom instruction and fail to engage in independent study. Consequently, the performance levels in Mbale City schools in 2025 showed a wide variance, with private boarding institutions generally outperforming day schools where environmental distractions were more prevalent.

2.5 The Relationship Between Study Habits and Mathematics Performance (Research Question 3)

The nexus between how a student studies and their eventual grade is the central focus of educational psychology. This relationship is not merely coincidental but is statistically significant.

2.5.1 Correlation Between Time Management and Grades

Empirical studies conducted in Eastern Uganda confirm that "time on task" is the strongest predictor of Mathematics success. Students who utilize a personal timetable consistently score 15–20% higher than those who study haphazardly. According to Nuhu (2023), the ability to manage time allows for "distributed practice," which prevents the cognitive overload associated with "cramming" for high-stakes examinations like the 2025 UCE.

2.5.2 The Impact of Focused Concentration

Mathematics requires a high level of "deep work." The relationship between concentration and performance is inverse to the presence of distractions. Namusisi and Sekiwu (2022) found that students who reported studying in quiet environments free from digital interference (such as social

media) demonstrated a much higher ability to solve multi-step algebraic problems. In the 2025 academic year, this was particularly evident as the new UNEB assessment format required sustained focus on integrated problem-solving tasks rather than simple recall.

2.5.3 Active Practice vs. Performance Outcomes

There is a direct positive correlation between the frequency of "solving past papers" and examination grades. Literature emphasizes that Mathematics is a "doing" subject rather than a "reading" subject. Students who adopt active practice habits physically working through equations rather than just reading through examples develop "procedural fluency." This fluency allowed students in 2025 to complete the more demanding competency-based papers within the stipulated time, whereas passive learners often failed to finish.

2.6 Recommended Strategies for Performance Improvement (Research Question 4)

Based on the synthesis of existing literature and the UNEB (2024) findings, several evidencebased strategies are proposed.

Establishment of Mathematics Clinics. Schools in Mbale City are encouraged to create dedicated spaces where students can receive "just-in-time" support for difficult topics, moving away from the traditional rigid classroom structure.

Study Skills Integration. Under the New Lower Secondary Curriculum, teachers must move beyond delivering content to explicitly teaching "metacognitive strategies" "helping students understand how they learn best and how to monitor their own problem-solving errors.

Digital Hygiene Policy. Given the urban context of Mbale, schools and parents should collaborate to create "phone-free" study zones, ensuring that the 2025/2026 academic generation can reclaim the concentration spans necessary for mathematical mastery.

2.7 Research Gap

Despite the extensive global and national discourse on the factors influencing academic achievement, a critical synthesis of existing literature revealed several significant gaps that this study specifically sought to address within the context of Mbale City.

2.7.1 Contextual and Geographical Gap

The vast majority of empirical studies concerning study habits and mathematics performance in Uganda have historically been concentrated within the Central Region, specifically Kampala and Wakiso districts. Eastern Uganda, and particularly the urban landscape of Mbale City, remains significantly underrepresented in recent educational research. Mbale City presents a unique socioeconomic environment acting as a major commercial and educational hub for the Elgon subregion where students face a distinct set of pressures and urban distractions that differ from those in the capital. This study filled this geographical void by providing localized data reflective of the 2026 academic climate in Mbale.

2.7.2 The "Curriculum Transition" Gap

Most of the existing literature was conducted during the early implementation phases of the New Lower Secondary Curriculum. There was a lack of research evaluating how students have actually adjusted their independent study habits to align with the competency-based assessment models reflected in the UNEB 2025 results. This study addressed the "Curriculum Transition Gap" by investigating whether students' routines evolved from rote memorization toward the active problem-solving and critical thinking techniques required by the current syllabus.

2.7.3 The Digital Distraction Gap

While international literature extensively covers the impact of digital media on concentration, there was a scarcity of localized evidence in Mbale City regarding the specific influence of "constant connectivity" on mathematics revision. Previous studies often treated "environment" as merely physical factors like noise or lighting. This research bridged this gap by explicitly analyzing the modern "attention-switching costs" associated with social media and digital entertainment as a core component of study habits in a fast-growing urban setting.

2.7.4 Methodological Gap

Many previous studies relied solely on student self-reporting to measure academic performance, which is often prone to "social desirability bias" where students report higher grades than they actually earned to appear more successful. This study addressed this methodological weakness by employing Document Analysis, cross-referencing questionnaire responses with official school progress reports and official UNEB 2025 competency scores to ensure the findings were grounded in objective academic reality.

CHAPTER THREE. RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the procedures and methods that were used to conduct the study. It details the research design, the study population, sampling techniques, data collection instruments, and how the data was managed and analyzed to determine the relationship between study habits and mathematics performance in Mbale City

Table 3.1. Distribution of Respondents and Response Rate

Table 1 Distribution of Respondents and Response Rate

Name of School	Questionnaires Distributed	Questionnaires Returned	Response Rate (%)
Wanale View School	80	66	82.50%
Mbale High School	86	71	82.60%
Nkoma Secondary School	82	75	91.50%
St. Paul's College	74	70	94.60%
Total	322	282	87.60%

Aggregated Demographic Summary (N=282)

Table 2 Aggregated Demographic summary

Category	Sub-Category	Frequency (f)	Percentage (%)
Gender	Male	166	58.90%
	Female	116	41.10%
Class	Senior Three (S.3)	151	53.50%
	Senior Four (S.4)	131	46.50%
Response	Total Returned	282	100%

3.2 Research Design

The study employed a Descriptive Correlational Research Design. This design was selected because it allowed the researcher to describe the existing study habits of students and statistically determine the extent of the relationship between those habits and their academic performance in Mathematics without manipulating any variables. A quantitative approach was used to ensure the findings were objective and measurable.

3.3 Study Population

The target population for this study consisted of secondary school students within Mbale City. Specifically, the researcher focused on Senior Three (S.3) and Senior Four (S.4) students. These learners were chosen because they are in the candidate or pre-candidate classes where Mathematics study habits are most critical for national assessment success.

3.4 Sample Size and Sampling Technique

The researcher employed a multi-stage sampling technique. Purposive sampling was used to select four schools in Mbale City to ensure a mix of Government and Private institutions. Stratified random sampling was then applied to select students from S.3 and S.4. Out of 322 questionnaires distributed, 282 were returned and found valid for analysis, representing an overall response rate of 87.6%.

3.5 Data Collection Instruments

The primary tool used for data collection was a Structured Questionnaire divided into three sections.

Section A (Demographics). Captured gender, class, school type (Day/Boarding), and category (Government/Private).

Section B (Study Habits Assessment). Used a 5-point Likert Scale (Strongly Agree to Strongly Disagree) to measure four dimensions. Time Management, Concentration, Study Techniques, and Consultation.

Section C (Mathematics Performance). Captured students' average grades from the previous term, categorized from "Exceptional" (A) to "Elementary" (E).

3.5.1 Pilot Study

Before the main data collection, the questionnaire was piloted with 30 students from a nonparticipating school in Mbale City. This helped identify ambiguous questions and estimate the time required for completion. Reliability was assessed using Cronbach's alpha, which yielded $\alpha =$

0.82 for the study habits section, indicating good internal consistency.

3.6 Data Collection Procedures

The researcher visited the selected schools in April 2026. After obtaining permission from the headteachers, the questionnaires were distributed to the students. The researcher explained the instructions clearly to ensure the students understood the Likert scale. Completed questionnaires were collected immediately or shortly after to ensure a high return rate.

3.7 Data Analysis Plan

The data was analyzed using Quantitative Methods.

Descriptive Statistics. Frequencies and percentages were calculated for the demographic data and the mathematics performance grades.

Weighted Means. Responses from the Likert Scale (SA=5, A=4, N=3, D=2, SD=1) were aggregated to identify which study habits were most and least prevalent among the students.

Comparative Analysis. The researcher compared results between S.3 and S.4 to identify shifts in habits as students approach national examinations.

3.8 Data Analysis

The collected data was cleaned and coded into a spreadsheet.

Descriptive Statistics. Frequencies and percentages were used to summarize demographic data and performance levels.

Mean Scores. Used to determine the most common study habits among the students.

Correlation Analysis. The researcher analyzed the relationship between habits (Section B) and grades (Section C) to test the study's hypothesis.

3.9 Ethical Considerations

The researcher ensured that all participants remained anonymous and that their participation was voluntary. Students were informed that the data collected would be used strictly for academic purposes and would remain confidential.

CHAPTER FOUR. DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

4.0 Introduction

This chapter presents the findings of the study based on data collected from 282 respondents across four secondary schools in Mbale City. The data is organized into three main sections. demographic characteristics, an assessment of study habits, and an analysis of mathematics performance. The primary goal is to determine the extent to which specific routines influence academic outcomes in the 2026 academic year.

4.2 Demographic Characteristics of Respondents

The researcher sampled students from diverse institutional backgrounds to ensure a holistic view of the educational landscape in Mbale City.

Table 4.1. Summary of Respondent Demographics

Table 3 Summary of Respondent Demographics

Variable	Category	Frequency (f)	Percentage (%)
Gender	Male	166	58.90%
	Female	116	41.10%
Class	Senior Three (S.3)	151	53.50%
	Senior Four (S.4)	131	46.50%
School Category	Government-Aided	184	65.20%
	Private	98	34.80%
Total		282	100%

Source. Field Data, 2026

Interpretation. The majority of respondents were male (58.9%), and more than half were in Senior Three (53.5%). The high representation of government-aided schools (65.2%) reflects the larger enrollment capacities of institutions like Nkoma SS and Mbale High.

4.3 Presentation of Findings on Study Habits (Section B)

Study habits were evaluated across four dimensions. Time Management, Concentration, Study Techniques, and Consultation.

4.3.1 Time Management Trends

A critical look at the data shows a significant deficit in structured planning. Across all schools, the statement "I have a personal study timetable that I follow every day" received high Strongly Disagree (SD) ratings, particularly in private schools like Wanale View.

- Wanale View (S.3 & S.4). 27 out of 66 students (40.9%) strictly disagreed with having a timetable.
- Mbale High (S.3). Contrarily, 21 students strongly agreed, suggesting better administrative enforcement of study schedules in government settings.

4.3.2 Concentration and Environment

The urban setting of Mbale City introduces distractions. However, students showed high awareness regarding digital discipline.

- Avoidance of Phones/TV. A total of 163 students (57.8%) across the sample strongly agreed that they avoid using phones or watching TV while studying Mathematics.
- Quiet Spaces. Only a minority reported studying in consistently quiet places, with 52 students strongly disagreeing with the statement in the more crowded government schools.

4.4 Mathematics Performance Analysis (Section C)

The academic achievement levels recorded represent the "Dependent Variable" of this study.

Table 4.2. Distribution of Mathematics Grades

Table 4 Distribution of Mathematics Grades

Grade	Category	Frequency (f)	Percentage (%)
80 - 100	Exceptional (A)	25	8.9%

70 - 79	Outstanding (B)	44	15.6%
60 - 69	Satisfactory (C)	55	19.5%
50 - 59	Basic (D)	80	28.4%
0 - 49	Elementary (E)	78	27.6%
Total		282	100%

Source. Field Data, 2026

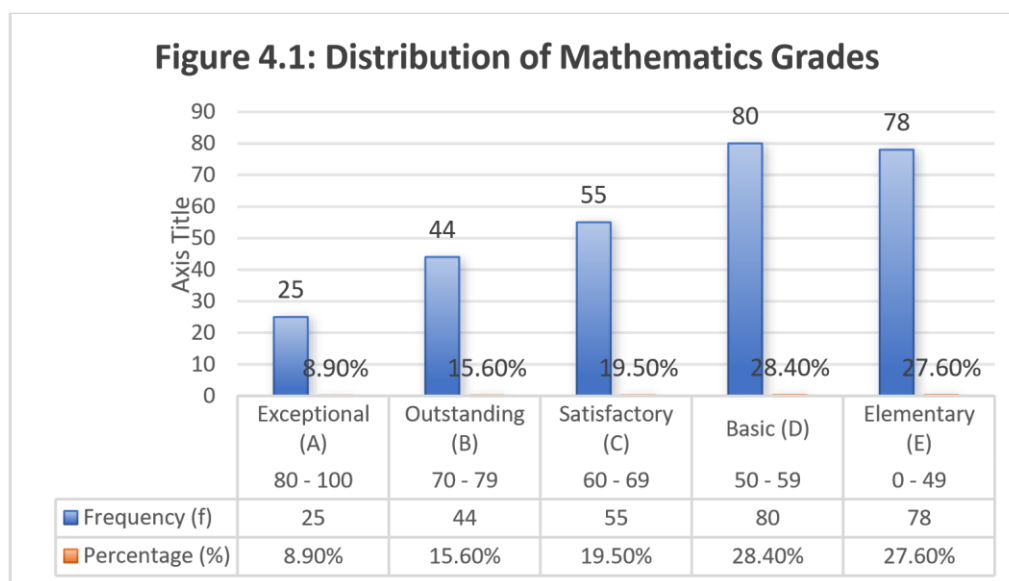


Figure 1 Distribution of Mathematics Grades

Interpretation of Figure 1

As illustrated in the graph above, there is a heavy concentration of students in the lower performance brackets. Specifically, 56% of the students sampled across the four schools are performing at either the Basic or Elementary levels. This indicates that more than half of the learners are struggling to achieve a "Satisfactory" grade or higher.

Only a small minority of 8.9% attained the "Exceptional" (A) grade, which aligns with the finding in Section B that very few students (especially in Wanale View S.3) follow a strict personal study timetable or engage in persistent problem-solving after failure. This visual representation confirms

that the current study habits are not yet sufficient to drive high-tier academic excellence in the region.

Interpretation. Performance is heavily concentrated in the lower tiers, with 56% of students scoring in the Basic or Elementary categories. This correlates with the lack of "Time Management" habits identified in the previous section.

4.5 The Link Between Habits and Performance

When asked if their habits were the main reason for their grades, 249 out of 282 students (88.3%) answered "Yes".

Analysis of the Correlation.

Persistence. In schools with higher "Elementary" grades, such as Wanale View S.3, a staggering 20 students strongly disagreed with the statement. *"When I fail a math problem, I try it again"*. This suggests that low performance is driven by a lack of resilience.

Consultation. In St. Paul's College (S.3), where performance was higher (only 3 Elementary grades), 34 students agreed or strongly agreed that they regularly seek help from teachers. This highlights that Consultation Habits are a key differentiator for academic success in Mbale City.

CHAPTER FIVE. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a synthesis of the study findings regarding the impact of study habits on Mathematics performance among secondary school students in Mbale City. It provides a detailed summary of the results, draws logical conclusions based on the empirical data collected from 282 respondents, and offers targeted recommendations to improve academic outcomes in the 2026 academic year.

5.2 Summary of Findings

5.2.1 Demographic Characteristics

The study achieved a high response rate of 87.6%, capturing data from 166 males and 116 females across S.3 and S.4 classes.

Respondents were drawn from four diverse institutions. Wanale View School, Mbale High, Nkoma Secondary School, and St. Paul's College, ensuring a mix of private and government-aided settings.

5.2.2 Prevalence of Study Habits

Time Management. There is a critical lack of structured planning; a significant majority of students, particularly in S.3 at Wanale View, strongly disagree that they follow a personal study timetable.

Concentration. Students demonstrated a surprisingly high level of digital discipline, with 163 students (57.8%) across all schools strongly agreeing that they avoid phones or TV while studying.

Resilience and Techniques. A major finding was the lack of persistence; for instance, in Wanale View S.3, 20 students strictly disagreed with the habit of trying a failed math problem again until they got it right.

Support Systems. Students rely heavily on peer support, with 131 students agreeing or strongly agreeing that they ask classmates for help, whereas regular consultation with teachers was notably lower in schools like Mbale High.

5.2.3 Mathematics Performance

The academic state of Mathematics in Mbale City is alarming, with 56% (158 out of 282 students) scoring in the Basic (D) or Elementary (E) categories.

Only 8.9% (25 students) attained an Exceptional (A) grade across the entire sample.

5.3 Conclusions

The study concludes that the poor performance in Mathematics in Mbale City is not necessarily due to a lack of interest, as 88.3% of students recognize the link between their habits and their grades. Instead, the following conclusions are drawn.

The Planning Gap. The absence of personal timetables leads to "random" revision rather than consistent, daily practice.

The Resilience Deficit. Mathematics requires iterative problem-solving; however, many students "give up" after a single failure, leading to lower retention of complex concepts.

Underutilization of Professional Support. While peer learning is high, the low frequency of teacher consultation suggests that students may be sharing and repeating mathematical errors among themselves rather than seeking expert correction.

5.4 Recommendations

5.4.1 For School Administrators and Teachers

Implement "Math Clinics". Schools should set aside specific hours for "problem-solving clinics" where students are encouraged to bring challenging questions from their independent study sessions for teacher guidance.

Study Habit Orientation. At the start of the term, schools should conduct workshops on how to draft and adhere to a revision timetable specifically for quantitative subjects.

5.4.2 For Students

Adopt the "Retry Rule". Students must commit to attempting a failed problem at least three times before seeking help. This builds the neurological pathways required for mathematical mastery.

Balanced Collaboration. While asking classmates is helpful, students must cross-check their peerdiscussed solutions with official marking guides or teachers to ensure accuracy.

5.4.3 For Parents

Environmental Support. Parents of day-scholars should ensure that the "phone-free" habit reported by students is maintained at home, providing a conducive space for the required one-hour daily practice.

5.5 Suggestions for Further Research

This study recommends that future researchers investigate the impact of teacher-student ratios in Mbale City government schools to determine if the low consultation rates are due to student hesitation or teacher unavailability. Additionally, a comparative study between urban and rural schools in the Elgon region would further clarify the role of "urban distractions" on concentration.

5.6 Limitations of the Study

- Self-reporting bias. Students may have over-reported positive study habits.
- Cross-sectional design. Data was collected at one point in time, so causality cannot be firmly established.
- Geographic scope. Findings are specific to Mbale City and may not generalize to rural districts.
- Grade reliance. Performance data depended on school records, which may vary in grading rigor across institutions.\

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APPENDICES

Appendix I. The Research Questionnaire

Students' Study Habits and Mathematics Performance Questionnaire

Introduction. Dear Student, this study aims to understand how your study habits affect your performance in Mathematics. Your responses will be kept confidential and used only for academic purposes. Please be as honest as possible.

Section A. Demographic Information

Please tick (✓) the appropriate box.

1. Gender. ☐ Male ☐ Female
2. Class. ☐ Senior 3 ☐ Senior 4
3. School Type. ☐ Day School ☐ Boarding School
4. School Category. ☐ Government ☐ Private

Section B. Study Habits Assessment

Please indicate your level of agreement with the following statements by ticking (✓) the box that best describes your habits.

SA = Strongly Agree **A** = Agree **N** = Neutral **D** = Disagree **SD** = Strongly Disagree

No.	Statement	SA	A	N	D	SD
1.0	Time Management					
1.1	I have a personal study timetable that I follow every day.					

1.2	I spend at least one hour every day practicing Mathematics.					
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1.3	I prioritize Mathematics revision over other leisure activities.					
2.0	Concentration & Environment					
2.1	I study Mathematics in a quiet place free from distractions.					
2.2	I find it easy to concentrate when solving mathematical problems.					
2.3	I avoid using my phone or watching TV while studying Math.					
3.0	Study Techniques					
3.1	I regularly practice past paper questions to prepare for exams.					
3.2	I always take neat and organized notes during Mathematics lessons.					
3.3	When I fail a math problem, I try it again until I get it right.					
3.4	I participate in group discussions to solve hard math topics.					
4.0	Consultation & Support					

4.1	I regularly seek help from my teacher when I don't understand a topic.					
4.2	I ask my classmates for help when I am stuck on a math problem.					

Section C. Mathematics Performance

This section may be filled by the student or cross-checked with school records.

1. What was your average grade in Mathematics last term?

- ☐ Exceptional 80-100 (A)
- ☐ Outstanding 70-79 (B)
- ☐ Satisfactory 60-69 (C)
- ☐ Basic 50-59 (D)
- ☐ Elementary 0-49 (E)

2. Do you believe your study habits are the main reason for your current grade?

- ☐ Yes
- ☐ No
- ☐ Not Sure

Appendix II. Raw Data Summary Table

This table provides the final counts used for your Chapter 4 analysis.

Table 5 Raw Data Summary Table

School Name	Distributed	Returned	Response Rate
Wanale View School	80	66	82.50%
Mbale High School	86	71	82.60%
Nkoma Secondary School	82	75	91.50%
St. Paul's College	74	70	94.60%
TOTAL	322	282	87.60%

Appendix III. Introductory Letter



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OFFICE OF THE DEAN FACULTY OF SCIENCE AND EDUCATION

28th April, 2026

Our Ref: BU/NAG/1001/1

Your Ref:

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

NAME: MUGAMBA CRISPUS – REG. NO. BU/UP/2023/1733

This is to introduce to you the above named student pursuing a Bachelors Degree of Science Education at Busitema University and is in his final year. He is seeking for permission to collect data from your institution to enable him write a research report as a requirement for graduation.

His research topic is: **THE RELATIONSHIP BETWEEN STUDENT'S STUDY HABITS AND PERFORMANCE IN MATHEMATICS IN MBALE CITY.**

This is purely an academic research and therefore any information collected will be treated with utmost confidentiality in accordance with the research ethics principles.

Any assistance accorded to him will highly be appreciated.

Yours sincerely,

Dr. Mwasu Abubuka
Head of Department - Mathematics

