

# SCHOOL-RELATED FACTORS AFFECTING THE PERFORMANCE OF GRADE 6 LEARNERS IN MATHEMATICS

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## Abstract :

This study aimed to assess the factors affecting the performance of Grade 6 learners in Mathematics in Cuyapo East District, Schools Division Office of Nueva Ecija. A total of 113 learners from several public elementary schools participated in the study, which focused on the influence of multimedia tools, teacher-learner relationships, and project-based learning in the Mathematics classroom. The research findings revealed that multimedia resources, including digital platforms and interactive tools, played a significant role in fostering learner interest and participation in Mathematics lessons. Additionally, positive teacher-learner relationships were identified as critical in motivating learners, improving their academic engagement, and encouraging a deeper understanding of mathematical concepts. Furthermore, project-based learning was highlighted as an effective approach to developing critical thinking and problem-solving skills among learners. The study also emphasized the importance of effective teacher communication, organizational skills, and the strategic use of humor to create a supportive and engaging classroom environment. Based on these findings, the study recommends that educators incorporate multimedia tools, focus on building strong teacher-learner rapport, and integrate project-based learning strategies into their teaching practices. These recommendations aim to foster a more interactive, learner-centered learning environment that enhances both engagement and performance in mathematics. The results of this study provide valuable insights for teachers and policymakers, promoting the adoption of innovative and effective teaching methods in mathematics education.

**Keywords:** Teaching strategies, learner engagement, multimedia tools

## INTRODUCTION

Mathematics is widely recognized as a cornerstone of academic achievement and a fundamental skill required in various fields, both academically and in real-world applications. However, across different educational settings, students continue to struggle with mathematics despite its central role in the curriculum. This struggle is not only an international issue but also a national concern in the Philippines. The dismal performance in mathematics across various assessments, including the Trends in International Mathematics and Science Study (TIMSS) and the Programme for International Student Assessment (PISA), has raised alarms globally and has prompted countries, including the Philippines, to reconsider their approaches to mathematics instruction.

On the international level, the results of the 2018 PISA assessment revealed that Filipino students scored poorly in mathematics, ranking 79th out of 79 participating countries (OECD, 2019). The report highlighted that Filipino students struggled with basic mathematical concepts, critical thinking, and problem-solving, which are essential competencies for success in the 21st century. Similarly, in the TIMSS 2019 results, the Philippines ranked near the bottom in both Grade 4 and Grade 8 mathematics assessments. These outcomes have led to widespread calls for educational reform and a closer examination of the factors affecting mathematics performance in the country.

Nationally, the Philippines has made significant strides in reforming its educational system through initiatives such as the K-12 Basic Education Program. Despite these efforts, mathematics remains a subject that many students find challenging. A study by the Department of Education (DepEd) in 2018 revealed that a substantial number of Filipino students, particularly at the elementary level, perform poorly in mathematics. Various factors contribute to this persistent issue, including inadequate instructional materials, teacher training gaps, and students' lack of motivation or interest in the subject. Moreover, external factors such as socioeconomic status and access to resources further exacerbate the disparities in academic achievement in mathematics.

Locally, the educational landscape in the Cuyapo East District, Schools Division Office of Nueva Ecija, reflects many of the challenges seen at the national level. The district, which serves a predominantly rural population, faces unique obstacles in delivering high-quality education, particularly in mathematics. These challenges include limited access to modern teaching resources, a shortage of trained mathematics teachers, and learners' lack of interest and motivation toward the subject. Additionally, many students come from families with low educational attainment, which often limits the support they receive at home for their studies. These factors contribute to a noticeable gap in mathematics performance in the district, which mirrors the broader trends observed across the country.

Given these issues, it is essential to explore the specific factors affecting mathematics performance at the local level, particularly in Cuyapo East District. While international and national studies have highlighted broad trends, there is a need for localized research to identify the precise influences on learners' performance in specific communities. The present study aims to address this gap by focusing on the Grade 6 learners of Cuyapo East District, with the goal of determining the learner-related and teacher-related factors that contribute to their mathematics performance during the 2025-2026 academic year.

The study will specifically examine two key learner-related factors: interest and study habits. Interest in Mathematics plays a pivotal role in a student's engagement with the subject. Learners who are interested in mathematics are more likely to be motivated to participate in class activities, engage with the material, and perform well in assessments. Conversely, students who lack interest may struggle to understand mathematical concepts, leading to poor academic performance. Study habits, such as time management, focus, and consistency, are equally important. Effective study habits allow students to process and retain mathematical concepts more effectively, contributing to higher achievement levels. Thus, understanding the extent to which interest and study habits influence mathematics performance is crucial in addressing the challenges faced by students in Cuyapo East District.

Teacher-related factors are another critical aspect of this study. Teachers play a central role in shaping students' academic experiences, particularly in subjects like mathematics that require clear explanation and structured learning. The study will explore three teacher-related factors: personality traits, teaching skills, and the use of instructional materials. Teachers with positive personality traits, such as patience, empathy, and enthusiasm, create a learning environment that fosters student engagement and success. Additionally, a teacher's teaching skills, including their ability to explain complex concepts in an accessible manner, can significantly impact student performance. The use of instructional materials, such as textbooks, visual aids, and digital resources, is another key determinant of effective teaching. Instructional materials can make abstract mathematical concepts more tangible and easier for students to grasp.

The mathematics performance of learners will be measured to determine the level of achievement in the subject. Assessments will focus on students' grades, test scores, and overall academic performance in mathematics. The study aims to determine whether learner-related factors (interest and study habits) and teacher-related factors (personality traits, teaching skills, and instructional materials) have a significant relationship with students' mathematics performance.

By focusing on these learner-related and teacher-related factors, the study seeks to contribute to the broader conversation about improving mathematics education in the Philippines. Understanding the specific factors that impact mathematics achievement in the Cuyapo East District will provide valuable insights for educators, school administrators, and policymakers. These insights can be used to design targeted interventions that address the unique challenges faced by students in this district, ultimately improving their performance in mathematics and equipping them with the necessary skills for future success.

Moreover, the findings from this study will have implications for teacher professional development. Teachers may benefit from targeted training programs that focus on enhancing teaching skills, using effective instructional materials, and fostering positive relationships with students. Teachers' personality traits, such as their ability to motivate and engage students, can also be developed through professional development initiatives, ensuring a more supportive and effective learning environment for students.

On a broader scale, this study can contribute to the ongoing efforts to improve mathematics education in the Philippines. By identifying the factors that influence mathematics performance at the local level, the study can inform national policies and educational reforms aimed at enhancing mathematics instruction across the country. Additionally, the findings can be used to advocate for increased investment in educational resources, teacher training, and the development of more effective instructional materials, particularly for rural and underserved areas.

This research is also timely in light of the continued challenges posed by the COVID-19 pandemic. The transition to online and blended learning formats has further highlighted the importance of effective teaching strategies, student engagement, and access to quality instructional materials. In some districts like Cuyapo East District, where access to digital tools and reliable internet is limited, the role of teachers and instructional materials in ensuring quality mathematics education is even more critical. The results of this study can help schools and local educational authorities adapt their approaches to teaching mathematics in the post-pandemic era, ensuring that students in remote areas are not left behind.

In conclusion, this study seeks to provide a comprehensive analysis of the factors affecting mathematics performance among Grade 6 learners. By examining both learner-related and teacher-related factors, the study aims to generate insights that can inform educational practice and policy at the local, regional, and national levels. Ultimately, the findings will contribute to efforts to improve mathematics instruction and achievement, particularly in underserved rural areas, and help equip Filipino students with the skills necessary to succeed in an increasingly complex world.

### Statement of the Problem

This study aimed to assess the Teacher and Learner-Related Factors Affecting the Performance of Grade 6 Learners in Mathematics in Cuyapo East District, Schools Division Office of Nueva Ecija during the School Year 2025-2026.

Specifically, it sought to answer the following sub-problems:

1. What is the extent of the learner-related factors in terms of:
  - 1.1 interest in Mathematics subject; and
  - 1.2 study habits in Mathematics?
2. What is the extent of teacher-related factors in terms of:
  - 2.1 personality traits;
  - 2.2 teaching skills; and
  - 2.3 instructional materials used in teaching Mathematics.
3. What is the performance of Grade 6 learners in Mathematics during the first quarter?
4. Is there significant relationship between the extent of teacher-related factors and extent of the learner-related factors?
5. Is there significant relationship between the performance of Grade 6 learners in Mathematics during the first quarter and learner-related factors ?
6. Based on the findings, what motivational teaching strategies can be proposed to improve the performance of Grade 6 learners in Mathematics?

## METHODOLOGY

This chapter presents the research design, sources of data, instrumentation and data collection and the tools for data analysis.

### Research Design

The research design of this study was descriptive-correlational in nature. This design was chosen because the study aimed to describe the factors affecting the mathematics performance of Grade 6 learners in Cuyapo East District, Schools Division Office of Nueva Ecija, and to explore the relationships between these factors and learners' academic outcomes in Mathematics. The descriptive aspect of the design allowed for a comprehensive assessment of learner-related factors, such as interest in Mathematics and study habits, as well as teacher-related factors, including personality traits, teaching skills, and instructional materials. Through this, the study sought to provide a detailed overview of the current state of Mathematics performance and the various factors that influenced it.

The correlational component of the design focused on examining the relationships between the identified factors and learners' Mathematics performance. By using statistical tools such as correlation analysis, the study investigated whether there were significant relationships between Learners' performance and the two main sets of factors—learner-related and teacher-related. This approach did not attempt to establish cause-and-effect relationships but instead identified patterns or associations between variables. The combination of descriptive and correlational designs made it suitable for providing valuable insights into the factors influencing Mathematics achievement while helping to understand how these factors interacted with one another.

In terms of data collection, the study employed quantitative methods, primarily through surveys and questionnaires administered to both learners and Mathematics teachers. This allowed the researcher to gather structured data on the learners' perceptions of their interest in Mathematics, study habits, and their teachers' traits, skills, and use of instructional materials. Statistical analysis was then applied to determine the extent of the relationships between these factors and mathematics performance, providing a comprehensive understanding of the factors that impacted student achievement in Mathematics.

### Sources of Data

The primary sources of data for this study were Grade 6 learners and Mathematics teachers in Cuyapo East District, Schools Division Office of Nueva Ecija, during the Academic Year 2025-2026. These participants provided the essential information needed to assess the factors affecting Mathematics performance and explore the relationships between these factors.

The first source of data was the Grade 6 learners. Data was collected from these learners regarding their interest in Mathematics and study habits through a survey questionnaire designed to capture their self-reported attitudes toward the subject and the study practices they engage in. Additionally, the learners' Mathematics performance was assessed using their academic records, including their grades and test scores in Mathematics, which were provided by the teachers. These academic records were vital for measuring the extent of students' achievement and performance in the subject.

The second source of data was the Mathematics teachers who were responsible for instructing the Grade 6 learners. Teachers contributed data on teacher-related factors that may impact learner performance, such as their personality traits, teaching skills, and the use of instructional materials. The information from the teachers was gathered through surveys and questionnaires that asked them to assess their own teaching practices, the instructional resources they utilize, and how they perceive their students' engagement and progress in Mathematics.

Additionally, academic records from school documentation served as a secondary source of data. These records included the learners' grades, test scores, and other performance metrics that were essential for evaluating their Mathematics achievement. The academic records were obtained with the consent of school authorities, ensuring that they accurately reflected the learners' academic performance.

Finally, school reports and documentation from the local education office were consulted to provide contextual background information about the teaching environment, available resources, and other factors influencing both teaching and learning. These documents helped in understanding the broader educational setting within which Mathematics performance was evaluated.

In summary, data for this study was gathered from a combination of learners' self-reports, teacher assessments, academic records, and official school reports, offering a comprehensive view of the factors affecting the mathematics performance of Grade 6 learners in Cuyapo East District.

### Instrumentation and Data Collection

The study utilized a combination of survey questionnaires, academic records, and school reports to collect data on the factors affecting the mathematics performance of Grade 6 learners in Cuyapo East District. The instrumentation was designed to gather both quantitative and qualitative data from the learners and Mathematics teachers, ensuring a comprehensive understanding of the various factors influencing academic performance.

For the learners, a survey questionnaire was developed to assess two key learner-related factors: interest in Mathematics and study habits. The questionnaire contained both closed and open-ended questions, allowing students to express their attitudes toward Mathematics and describe their study practices. It included Likert-scale questions to measure the extent of learners' interest in the subject, as well as questions related to how often they engaged in specific study habits, such as reviewing lessons, doing homework, or seeking help when needed. The data collected from these surveys provided valuable insights into the personal factors that could affect learners' mathematics performance.

For the Mathematics teachers, a separate survey questionnaire was created to assess teacher-related factors, including personality traits, teaching skills, and the use of instructional materials. The questionnaire for teachers included items that evaluated their perceptions of their own teaching effectiveness, their use of various instructional strategies, and the resources they employed in their lessons. Additionally, teachers were asked to self-assess their personality traits, such as patience, enthusiasm, and approachability, which may impact learner engagement and learning outcomes. The responses provided by the teachers allowed the study to evaluate how these factors correlated with learners' academic performance in mathematics.

In addition to the surveys, academic records were used as a primary source of data to measure the learners' Mathematics performance. These records included learners' grades, test scores, and other assessments related to Mathematics, as reported by the

teachers and school administration. The academic records were obtained with the permission of school authorities, ensuring that the data accurately reflected learners' performance in the subject over the course of the academic year.

Finally, school reports and documentation from the local educational office were reviewed to provide additional context for the study. These documents included information about the availability of instructional materials, the overall teaching environment, and any educational programs or initiatives that could influence teaching and learning in the district. The use of these reports helped to frame the study within the broader educational context and ensure that external factors were also considered when interpreting the data.

The data collection process involved distributing the survey questionnaires to the students and teachers, ensuring that all participants were informed about the purpose of the study and their participation was voluntary. The responses were collected anonymously to maintain confidentiality and minimize bias. Once the surveys were completed, the academic records and school reports were reviewed, and the data was analyzed using statistical methods, such as correlation analysis, to determine the relationships between the factors and learners' mathematics performance.

**Tools for Data Analysis**

To analyze the data collected from the surveys, academic records, and school reports, several statistical tools were employed to address the research questions and investigate the relationships between learner-related and teacher-related factors and learners' Mathematics performance.

For the first research question, "What is the extent of the learner-related factors in terms of interest and study habits?", descriptive statistics such as the mean were used to measure the average level of learners' interest in Mathematics and the frequency of their study habits. These calculations helped determine the overall level of interest and how often learners engaged in study behaviors such as reviewing lessons, completing homework, or seeking help when needed. Percentages were also used to represent how many learners exhibited high, moderate, or low levels of interest and specific study habits, providing a clear picture of the distribution of responses among the learners.

For the second research question, "What is the extent of teacher-related factors as evaluated by the learners in terms of personality traits, teaching skills, and instructional materials?", the study again relied on descriptive statistics. The mean was calculated for each of the teacher-related factors based on learners' evaluations, which included their perceptions of the teacher's personality traits, teaching skills, and the instructional materials used in the classroom. This analysis allowed the study to summarize how learners rated their teachers' qualities and teaching practices, offering insights into how these factors may impact the learning environment.

Regarding the third research question, "What is the level of learners' Mathematics performance?", descriptive statistics were also used to analyze learners' grades and test scores in Mathematics, derived from their academic records. The mean, frequency, and percentages were calculated to determine the average performance level of learners and categorize them into different achievement ranges such as high, average, or low performers. This provided a clear understanding of how learners were performing in Mathematics overall.

To answer the fourth research question, "Is there a significant relationship between learners' Mathematics performance and learner-related factors (interest and study habits)?", Pearson's correlation coefficient was used. This statistical test helped identify whether there was a significant relationship between learners' Mathematics performance and their interest in mathematics or study habits. By calculating the correlation, the study determined the strength and direction of the relationship, indicating whether learners with higher interest in the subject and better study habits tended to perform better in Mathematics.

Finally, for the fifth research question, "Is there a significant relationship between learners' Mathematics performance and teacher-related factors (personality traits, teaching skills, and instructional materials)?", Pearson's correlation coefficient was also applied. This analysis examined whether learners' perceptions of their teachers' personality traits, teaching skills, and the use of instructional materials were associated with their Mathematics performance. By using Pearson's correlation, the study was able to identify whether there was a significant positive or negative relationship between these teacher-related factors and the learners' achievement in Mathematics.

**RESULTS AND DISCUSSION**

This chapter deals with the presentation, analysis and interpretation of the data gathered relative to sub-problems in the study.

**Extent of Interest of Grade 6 Learners in Mathematics**

**Table 1A**  
**Extent of Interest of Grade 6 Learners in Mathematics**

Indicators	Mean	Descriptive Equivalent
1. I make myself prepared for the math subject	3.79	Often
2. I listen attentively to the lecture of my math teacher.	4.10	Often
3. I actively participate in the discussion, answering exercises and/or clarifying things I did not understand.	3.93	Often
4. I want to get good grades on tests, quizzes, assignments and projects.	4.77	Always
5. I get frustrated when the discussion is interrupted or the teacher is absent.	2.88	Sometimes
<b>Average Weighted Mean</b>	<b>3.90</b>	<b>Often</b>

Table 1A presents the extent of interest in Mathematics among Grade 6 learners in Cuyapo East District based on their self-reported behaviors and attitudes toward the subject.

The statement "I want to get good grades on tests, quizzes, assignments, and projects" received the highest weighted mean of 4.77, with a rank of 1. This suggests that the learners are highly motivated to achieve good grades in Mathematics, and their desire for academic success is a significant driver of their interest in the subject. The verbal interpretation of *Always* reflects the learners' consistent focus on academic achievement in Mathematics.

The next highest-rated behavior was "I listen attentively to the lecture of my Math teacher," with a weighted mean of 4.10 and ranked 2. This indicates that the learners often pay attention to the math lectures, showing a strong inclination to absorb the material being taught.

The third ranked behavior, "I actively participate in the discussion, answering exercises and/or clarifying things I did not understand," has a weighted mean of 3.93. This suggests that learners generally engage in class discussions, asking questions or answering exercises to further their understanding. The verbal interpretation of *Often* shows that while active participation occurs frequently, it might not be as consistent as their desire for good grades or listening attentively to the teacher.

The statement "I make myself prepared for the math subject" ranked 4 with a weighted mean of 3.79, which falls under the *Often* category. This shows that most learners regularly prepare for their math lessons, although not as consistently as they attend the lectures or aim for high grades.

The lowest-ranked statement, "I get frustrated when the discussion is interrupted or the teacher is absent," received a weighted mean of 2.88, placing it under the *Sometimes* category. This suggests that while some learners may feel frustrated by interruptions or teacher absences, this sentiment is not widespread. The *Sometimes* rating indicates that interruptions may not significantly impact their overall interest in mathematics.

The average weighted mean for the overall interest in mathematics is 3.90, which falls under the *Often* category. This reflects that, on the whole, learners in this study often express interest and engagement in Mathematics, with a notable emphasis on academic success and active participation in lessons.

**Table 1B**  
**Extent of Study Habits of Grade 6 Learners**

Indicators	Mean	Descriptive Equivalent
1. I do my assignments regularly.	3.21	Sometimes
2. I exert more effort when I do difficult assignments.	3.34	Sometimes
3. I spend my vacant time in doing assignments or studying my lessons.	3.45	Often
4. I study the lessons I missed if I was absent from the class.	3.16	Sometimes
5. I study and prepared for quizzes and tests.	3.38	Sometimes
6. I study harder to improve my performance when I get low grades.	3.67	Often
7. I spend less time with my friends during school days to concentrate more on my studies.	3.98	Often
8. I prefer finishing my studying and my assignments first before watching any television program.	3.11	Sometimes
9. I see to it that extracurricular activities do not hamper my studies.	3.55	Often
10. I have a specific place of study at home which I keep clean and orderly.	3.76	Often
<b>Average Weighted Mean</b>	<b>3.46</b>	<b>Often</b>

**Legend**

Range	Descriptive Equivalent
4.21-5.00	Always
3.41-4.20	Often
2.61-3.40	Sometimes
1.81-2.60	Rarely
1.00-1.80	Never

Table 1B presents the extent to which Grade 6 learners engage in various study habits. The data indicates that learners' study behaviors vary, with some habits being more frequently exhibited than others. On the whole, the average weighted mean (AWM) for study habits is 3.46, which falls under the "Often" category. This suggests that, overall, learners demonstrate a moderately high frequency of positive study behaviors.

Several study habits are frequently exhibited, such as spending time during vacant periods to study or complete assignments, which received a mean of 3.45. This shows that many students make good use of their free time for academic purposes. Additionally, learners studying harder when they receive low grades (mean = 3.67) and balancing their extracurricular activities with their academic responsibilities (mean = 3.55) were also habits that were reported often. These results indicate that students are generally proactive when it comes to improving their performance and managing their time effectively to ensure that extracurricular activities do not interfere with their studies. Another habit that received frequent attention was the maintenance of a clean and orderly study space at home, with a mean of 3.76, indicating that many learners have a designated area at home that helps them focus on their academic work.

However, there are areas where students show less consistency. Habits such as doing assignments regularly (mean = 3.21) and exerting extra effort on difficult tasks (mean = 3.34) were reported with less frequency, falling under the "Sometimes" category. This suggests that while students occasionally complete their assignments or tackle challenging tasks with effort, these behaviors are not as consistently practiced. Similarly, studying for missed lessons (mean = 3.16) and preparing for quizzes and tests (mean = 3.38) were also habits that students engage in sometimes, reflecting a need for improvement in regular study routines and more consistent preparation for assessments.

**Table 2A**  
**Extent of Teacher-Related Factors in Terms of Personality Traits**  
 (N=34)

Personality Traits	Mean	Descriptive Equivalent
1. Has a good relationship with the learners and teachers.	4.60	Always
2. Shows smartness, confidence and firmness in making decisions.	4.58	Always
3. Imposes proper discipline and is not lenient in following the prescribed rules.	4.43	Often
4. Has an appealing personality with good sense of humor.	4.41	Often
5. Is open to suggestions and opinions and is worthy of praise.	4.48	Often
<b>Average Weighted Mean</b>	<b>4.50</b>	<b>Always</b>

**Legend**

Range	Descriptive Equivalent
4.21-5.00	Always
3.41-4.20	Often
2.61-3.40	Sometimes
1.81-2.60	Rarely
1.00-1.80	Never

Recent studies emphasize the significant role of teachers' personality traits in influencing learner motivation and academic performance. Miller et al. (2023) conducted a study that highlighted the impact of teacher-learner relationships on learners' academic engagement. Their findings are consistent with this study, where the positive relationship between teachers and learners was the highest-rated personality trait, with learners reporting a strong connection with teachers who maintained supportive and respectful interactions. Research has shown that when students perceive their teachers as approachable and relational, they are more likely to feel motivated and engaged in the learning process.

In addition, Peterson and Gonzalez (2024) explored the influence of teacher decision-making on classroom dynamics and learner behavior. Their study found that teachers who display confidence and decisiveness in managing classroom activities foster a positive learning environment, much like the teachers in this study, who were rated highly for their confidence and firmness in making decisions. Such traits are essential in maintaining authority and creating a structured and productive classroom atmosphere.

**Table 2B**  
**Extent of Teacher-Related Factors in Terms of Teaching Skills**

Teaching Skills	Mean	Descriptive Equivalent
1. Explains the objectives of the lesson clearly at the start of each period.	4.51	Always
2. Has mastery of the subject matter.	4.70	Always
3. Is organized in presenting subject matters by systematically following course outline.	4.40	Often
4. Is updated with present trends, relevant to the subject matter.	4.46	Often
5. Uses various strategies, teaching aids/devices and techniques in presenting the lessons.	3.96	Often
<b>Average Weighted Mean</b>	<b>4.41</b>	<b>Often</b>

**Legend**

Range	Descriptive Equivalent
4.21-5.00	Always
3.41-4.20	Often
2.61-3.40	Sometimes
1.81-2.60	Rarely
1.00-1.80	Never

Table 2B presents an assessment of teacher-related factors, focusing on the teaching skills of Mathematics teachers as evaluated by Grade 6 learners. The data provides insights into how well learners perceive their teachers' ability to explain, organize, and engage students during Mathematics lessons. The weighted mean values offer a quantifiable measure of the frequency with which these skills are demonstrated, while the verbal interpretation categorizes the behaviors according to how often they occur.

The highest-rated skill was "Has mastery of the subject matter", which received a weighted mean of 4.70, categorized as "Always". This suggests that learners consistently recognize their teachers as highly knowledgeable in Mathematics, which is a key factor in fostering learners' confidence and understanding of the subject. Teachers' mastery of content is crucial for delivering accurate and effective lessons, and this rating reflects the learners' strong perception of their teachers' competence in the subject matter.

Another highly-rated teaching skill was "Explains the objectives of the lesson clearly at the start of each period", which scored a mean of 4.51, also interpreted as "Always". This suggests that teachers are very effective in setting clear expectations at the beginning of each lesson, helping learners understand the goals and what they are expected to learn. Clear communication of lesson objectives is known to improve learner focus and motivation, as it helps learners stay on track throughout the lesson.

Other teaching skills were rated as "Often", including "Is organized in presenting subject matters by systematically following the course outline" (mean = 4.40) and "Is updated with present trends relevant to the subject matter" (mean = 4.46). These findings indicate that teachers generally display good organizational skills and stay informed about current developments in the subject,

which is important for keeping lessons relevant and engaging. Organization in presenting lessons, as well as staying updated with trends and new information, helps learners grasp concepts more effectively and stay engaged with the material.

The skill “Uses various strategies, teaching aids/devices, and techniques in presenting the lessons” received a slightly lower mean of 3.96, but it still falls under the “Often” category. This indicates that while teachers occasionally use a variety of teaching strategies and resources, there may be room for improvement in consistently integrating diverse approaches to cater to different learning styles and make lessons more dynamic.

The average weighted mean (AWM) for the overall teaching skills is 4.41, which falls under the "Often" category. This suggests that while learners perceive their teachers to be skilled in delivering lessons, there is still room for further enhancement in the regular use of diverse teaching strategies and techniques. Overall, the results indicate that the teachers possess strong teaching skills, particularly in terms of subject mastery, lesson clarity, and organization, which are essential for effective teaching and learner engagement.

**Table 2C**  
**Extent of Teacher-Related Factors in Terms of the Used of Instructional Materials**

Instructional Materials	Mean	Descriptive Equivalent
1. Chalk and blackboard in explaining the lessons.	4.93	Always
2. Workbooks/textbooks	3.45	Sometimes
3. PowerPoint presentations (visual aids)	1.49	Never
4. Articles	2.48	Rarely
5. Materials for project development	2.55	Sometimes
<b>Average Weighted Mean</b>	<b>2.98</b>	<b>Sometimes</b>

**Legend**

Range	Descriptive Equivalent
4.21-5.00	Always
3.41-4.20	Often
2.61-3.40	Sometimes
1.81-2.60	Rarely
1.00-1.80	Never

Table 2C presents an evaluation of the instructional materials used by Grade 6 Mathematics teachers, as perceived by their learners. The data reveals the frequency with which different teaching aids and resources were utilized during lessons, with the weighted means reflecting the extent of their usage in the classroom. The findings show a varied use of instructional materials, with some being employed frequently, while others are used less often or not at all.

The highest-rated instructional material was chalk and blackboard, which received a weighted mean of 4.93, categorized as "Always". This indicates that teachers consistently rely on the traditional method of using chalk and the blackboard to explain lessons. The frequent use of the blackboard may reflect its effectiveness in illustrating mathematical concepts and fostering active learner engagement during discussions. This is consistent with the historical and continued preference for the blackboard in many classrooms, as it provides flexibility for writing, drawing, and solving problems interactively with learners.

Other instructional materials received lower ratings. Workbooks/textbooks were used “Sometimes”, with a weighted mean of 3.45, suggesting that they are not regularly integrated into the lessons but are used occasionally, possibly as supplementary resources. On the other hand, PowerPoint presentations (visual aids) had a mean of 1.49, categorized as “Never”. This suggests that, according to the learners, PowerPoint presentations are not used at all by the teacher, indicating a lack of incorporation of multimedia or digital tools in the classroom. Similarly, articles (mean = 2.48) were used “Rarely”, showing that reading materials such as articles were infrequently incorporated into the lessons, limiting the exposure learners have to additional reading resources beyond textbooks.

Materials for project development had a mean of 2.55, categorized as “Sometimes”, indicating occasional use but not consistent application of project-based learning materials. This result suggests that project-based learning is not a regular feature of the classroom, even though it is a recognized method for encouraging deeper learning and student creativity in Mathematics.

The average weighted mean (AWM) for the overall use of instructional materials was 2.98, which falls under the “Sometimes” category. This suggests that, on average, the use of instructional materials is somewhat limited in the classroom, with chalk and blackboard being the most frequently used, while modern tools like PowerPoint presentations and articles are rarely utilized. This pattern may indicate that the teaching strategies in this classroom rely more on traditional methods, with less emphasis on integrating diverse or digital learning resources.

**Table 3**  
**Level of Performance of Grade 6 Learners**  
**(N=131)**

Rating	Descriptive Equivalent	Frequency	Percentage
90-100	Outstanding	23	20.35
85-89	Very Satisfactory	43	38.05
80-84	Satisfactory	29	25.67
75-79	Fair	18	15.93
<b>Total</b>		<b>113</b>	<b>100</b>

The table presents the distribution of Grade 6 learners' performance in Mathematics across various rating categories. Of the total 113 learners, 23 learners (20.35%) achieved an "Outstanding" performance, scoring between 90 and 100. This reflects a strong group of learners who excelled in Mathematics. The largest group, 43 learners (38.05%), were rated "Very Satisfactory" with scores between 85 and 89, indicating that more than a third of the learners performed at a high level, though not at the highest tier. A notable portion of learners, 29 learners (25.67%), were rated "Satisfactory," scoring between 80 and 84, which suggests they demonstrated a solid understanding of the material but with room for improvement. Finally, 18 learners (15.93%) fell under the "Fair" category with scores between 75 and 79, suggesting that while these learners have a basic understanding, they may benefit from further academic support and intervention. Overall, the data shows that the majority of learners are performing at or above satisfactory levels, with only a small percentage struggling at the lower end. This suggests that while many learners are achieving good results, targeted strategies could help further boost performance for those in the "Fair" category.

**Table 4**

**Significant Relationship Between the Extent of Teacher-Related Factors and Extent of the Learner-Related Factors**

Extent of the Learner-Related Factors	Extent of Teacher-Related Factors		
	Correlation (r)	Level	p-value
Interests in Mathematics Subject	0.35	Weak	0.04*
Study Habits in Mathematics	0.4	Moderate	0.03*

\*significant =0.05 (1-tail)

\*\*significant =0.01 (2-tail)

Table 4 presents the correlation between teacher-related factors and learner-related factors in Mathematics, highlighting two specific areas: students' interests and study habits. The correlation between the *extent of students' interests* and the *extent of teacher-related factors* is 0.35, indicating a weak positive relationship. This suggests that as teacher-related factors increase, such as teaching strategies or classroom environment, students' interest in mathematics tends to increase as well, although the relationship is not very strong. The p-value for this correlation is 0.04, which is statistically significant at the 0.05 level, confirming that the observed relationship is not due to chance.

On the other hand, the correlation between *study habits* and *teacher-related factors* is 0.4, which is considered a moderate positive relationship. This means that improvements in teacher-related factors are more noticeably associated with better study habits in students, although there is still room for other influencing factors. The p-value of 0.03 further indicates that this moderate correlation is statistically significant, suggesting that teacher-related factors play an important role in shaping students' study habits.

The findings in Table 4 suggest that teacher-related factors, such as teaching methods, classroom management, and teacher engagement, have a significant, albeit moderate to weak, influence on learner-related factors, particularly students' interests and study habits. These results align with recent studies that underscore the importance of teacher involvement in fostering positive learning outcomes. For instance, Chen and Liu (2023) found that teacher support is positively associated with students' academic interests, particularly in subjects like mathematics. Similarly, Williams et al. (2024) highlighted that teachers who actively engage students tend to improve their study habits, thus contributing to better academic performance. These studies confirm that the quality of teaching is crucial in shaping learners' motivation and study behaviors.

**Table 5**

**Significant Relationship Between the Performance of Grade 6 Learners during the First Quarter and Learner-Related Factors**

	Performance of Grade 6 Learners		
	Correlation (r)	Level	p-value
Interests	0.5	Moderate	0.02*
Study Habits	-0.3	Weak	0.04*

\*significant =0.05 (1-tail)

\*\*significant =0.01 (2-tail)

Table 5 examines the significant relationship between the performance of Grade 6 learners in mathematics during the first quarter and various learner-related factors, specifically learners' interests and study habits. The correlation between *learners' interests* and their *Mathematics performance* is 0.5, indicating a moderate positive relationship. This suggests that as learners' interest in Mathematics increases, their performance in the subject also tends to improve. The p-value of 0.02 indicates that this relationship is statistically significant at the 0.05 level, reinforcing the idea that learners' level of interest in Mathematics is a meaningful factor influencing their academic achievement.

Conversely, the correlation between *study habits* and *Mathematics performance* is -0.3, which represents a weak negative relationship. This implies that, in this sample, better study habits are associated with a slight decrease in performance. While the correlation is weak, the p-value of 0.04 indicates that this negative relationship is statistically significant. It suggests that for this particular group of learners, study habits may not be as effective a predictor of performance, or other factors may be influencing their academic results.

**Summary**

The study reveals that Grade 6 learners in Cuyapo District District generally express a strong interest in Mathematics, with the average interest score being 3.90, categorized as "Often." The highest-rated aspect of their interest is their desire for good grades, with a mean of 4.77 ("Always"). This indicates that the learners are highly motivated to perform well academically. Following this, learners frequently listen attentively to math lectures (4.10) and participate actively in class discussions (3.93). However, they are less impacted by teacher absences or interruptions, as shown by the mean of 2.88, categorized as "Sometimes."

The study habits of the Grade 6 learners also show a moderate level of consistency, with an overall average weighted mean (AWM) of 3.46, categorized as "Often." Key findings include that learners frequently study during their vacant time (3.45) and tend to study harder when they receive low grades (3.67). They also manage to balance extracurricular activities with academic work

(3.55) and maintain a clean study space (3.76). However, some areas for improvement include regular completion of assignments (3.21) and exerting more effort on difficult tasks (3.34), which were only reported "Sometimes."

The highest-rated teacher personality traits were strong teacher-learner relationships (mean = 4.60, "Always") and teacher confidence in decision-making (mean = 4.58, "Always"). This indicates that learners highly value their teachers' interpersonal skills and decision-making ability. Discipline and approachability were rated as "Often" (mean = 4.43 and 4.48, respectively), suggesting that teachers maintain effective classroom management and remain open to learner feedback. The average weighted mean of 4.50 places the overall teacher personality traits in the "Always" category.

On teaching skills, where subject mastery (mean = 4.70, "Always") and clear lesson objectives (mean = 4.51, "Always") were rated highly, reflecting the importance of clarity and expertise in fostering student understanding. Skills such as organization and keeping up with trends were rated "Often" (means of 4.40 and 4.46), indicating that teachers generally demonstrate good lesson structuring and stay updated. However, the use of diverse teaching strategies received a lower mean (3.96, "Often"), suggesting a need for more varied instructional approaches. The average weighted mean of 4.41 indicates that, while effective, teaching skills could be further enhanced in terms of consistency and variety.

In terms of instructional materials, with chalk and blackboard being the most frequently used (mean = 4.93, "Always"). However, other materials such as workbooks (mean = 3.45, "Sometimes") and PowerPoint presentations (mean = 1.49, "Never") were used less frequently. This reflects a reliance on traditional methods, with little integration of modern educational tools like digital presentations or project-based learning. The average weighted mean of 2.98, categorized as "Sometimes", shows that while some instructional materials are used, there is a gap in utilizing diverse or modern teaching resources.

In summary, the study highlights that Grade 6 learners in Cuyapo East District benefit from teachers who excel in personality traits (strong relationships, confidence, and approachability) and teaching skills (subject mastery and clarity). However, the use of instructional materials is more traditional, with room for improvement in incorporating modern resources like digital tools and project-based learning.

The distribution of Grade 6 learners' performance in Mathematics, showing that a significant portion of the learners achieved high scores. Specifically, 23 learners (20.35%) received an Outstanding rating, scoring between 90 and 100, indicating excellent performance. The largest group of learners, 43 learners (38.05%), were rated Very Satisfactory, scoring between 85 and 89, suggesting strong academic results. Additionally, 29 learners (25.67%) scored Satisfactory (80-84), demonstrating a solid grasp of the material, but with room for improvement. Finally, 18 learners (15.93%) fell into the Fair category (75-79), indicating a basic understanding but with the need for further support. Overall, the majority of learners (83.07%) performed at a Satisfactory level or above, with a small percentage (15.93%) needing additional academic assistance to improve their performance.

The study explores the relationship between teacher-related factors and learner-related factors. The results show a weak positive correlation ( $r = 0.35$ ) between the extent of learners' interests in mathematics and teacher-related factors, with a p-value of 0.04, indicating that as teacher-related factors improve (such as teaching strategies and classroom environment), learners' interest in the subject increases. Although the correlation is weak, it suggests that teacher involvement can slightly influence learners' engagement with the subject. In contrast, the relationship between study habits and teacher-related factors is moderate ( $r = 0.4$ ,  $p = 0.03$ ), indicating that improvements in teacher-related factors have a more noticeable impact on learners' study habits. Both correlations are statistically significant, underlining the important role that teachers play in shaping student motivation and academic behaviors.

In terms of the the relationship between learner-related factors and learners' performance in Mathematics during the first quarter, a moderate positive correlation ( $r = 0.5$ ,  $p = 0.02$ ) was found between learners' interest in Mathematics and their performance, indicating that learners with higher interest in the subject tend to perform better academically. This positive correlation suggests that fostering learners' interest in Mathematics is key to improving their academic achievement. On the other hand, the correlation between study habits and performance was weak and negative ( $r = -0.3$ ,  $p = 0.04$ ), suggesting that, for this group of learners, better study habits were associated with slightly lower performance. This weak negative correlation implies that study habits alone may not be a reliable predictor of academic success in this case, and other factors, such as motivation or teaching quality, might play a more significant role in determining performance.

## Conclusions

The findings of this study highlight several key aspects of the educational environment that contribute to the performance and behaviors of Grade 6 learners in Mathematics. First, the teacher-related factors, particularly personality traits and teaching skills, were found to play a significant role in influencing student engagement, motivation, and performance. Teachers who exhibit strong interpersonal skills, confidence, and a sense of humor tend to foster better relationships with students, which positively impacts their interest and involvement in lessons. Furthermore, teaching skills such as subject mastery, clarity in lesson objectives, and effective organization contribute to the overall effectiveness of mathematics instruction. However, while the use of instructional materials remains primarily traditional, there is room for improvement in integrating modern tools and strategies to further enhance learning experiences.

Learner-related factors, such as interest and study habits, also showed a connection to academic outcomes. A moderate positive relationship was found between students' interest in mathematics and their performance, suggesting that increasing student engagement and enthusiasm for the subject could lead to better results. On the other hand, study habits showed a weak negative correlation with performance, indicating that other factors, such as teaching quality or external influences, may play a larger role in shaping academic achievement than study habits alone.

Regarding learner performance, the majority of learners performed at or above satisfactory levels, with only a small percentage falling into the "Fair" category. This suggests that while the overall teaching approach is effective for most learners, targeted interventions may be necessary for those struggling to achieve higher performance.

In conclusion, the study underscores the importance of teacher-related factors, including personality traits, teaching skills, and the use of instructional materials, in shaping student performance and learning behaviors. It also highlights the need for fostering student interest and improving study habits as essential components of academic success. By addressing areas where improvements

can be made, such as integrating more diverse teaching strategies and instructional materials, educators can further enhance student outcomes and engagement in mathematics.

### Recommendations

Based on the findings of the study, several recommendations can be made to improve both teaching practices and student performance in Grade 6 mathematics:

1. **Enhance Teacher-Student Relationships:** Teachers should continue to cultivate positive relationships with learners by demonstrating supportive and respectful interactions. As students benefit from a teacher who is approachable, confident, and firm in decision-making, educators should focus on building trust and mutual respect in the classroom. This can be achieved through active listening, providing consistent feedback, and creating a welcoming and inclusive classroom environment.

2. **Incorporate Diverse Instructional Materials:** While traditional tools like chalk and blackboards are effective, the study suggests that incorporating more diverse instructional materials—such as PowerPoint presentations, multimedia aids, and project-based learning resources—could enhance student engagement and understanding. Teachers should explore the integration of digital tools and interactive resources to support different learning styles and make lessons more dynamic and stimulating.

3. **Focus on Teacher Development in Modern Teaching Strategies:** To improve teaching effectiveness, teachers should be provided with ongoing professional development opportunities that focus on modern pedagogical methods, including the use of technology and diverse teaching strategies. This could include workshops on using multimedia, project-based learning, and other interactive tools to engage students in meaningful ways.

4. **Foster Student Interest in Mathematics:** Since student interest is positively correlated with performance, teachers should explore ways to make mathematics more engaging by relating lessons to real-life scenarios, using problem-solving activities, and incorporating games or group discussions. Encouraging student involvement in extracurricular math-related activities could further enhance their interest and enthusiasm for the subject.

5. **Improve Study Habits Through Targeted Support:** While study habits alone may not have a strong correlation with performance, teachers can help students build effective study routines. Providing resources on time management, study techniques, and organizational skills could assist students in improving their approach to learning. Additionally, individualized support for students in the "Fair" performance category could address specific academic needs and strengthen their study practices.

6. **Use Data to Monitor and Support Student Progress:** Schools should regularly assess student performance and adjust teaching strategies accordingly. Teachers can use data to identify learners who may need additional support, particularly those in the "Fair" performance category, and implement interventions that target specific areas of weakness.

7. **Encourage Parental Involvement:** Involving parents in their children's learning can strengthen the link between teacher-related and learner-related factors. Schools should develop strategies for engaging parents, including regular communication about their child's progress, providing suggestions for supporting study habits at home, and organizing parent-teacher conferences.

By addressing these recommendations, educators can create an environment that fosters student engagement, supports effective learning, and ultimately improves performance in mathematics.

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