



# American Journal of Education and Technology (AJET)

ISSN: 2832-9481 (ONLINE)

VOLUME 5 ISSUE 3 (2026)



PUBLISHED BY  
E-PALLI PUBLISHERS, DELAWARE, USA

## Impact of Study Habits on the Academic Performance of Students in Regular Class and Special Program in Mathematics

Grace Lyn I. Valdez<sup>1\*</sup>, Edrian D. Saraos<sup>1</sup>

### Article Information

**Received:** May 07, 2026

**Accepted:** July 17, 2026

**Published:** September 09, 2026

### Keywords

*Academic Performance, Correlation, Regular Class, Special Program in Mathematics, Study Habits*

### ABSTRACT

This study aimed to determine the level of study habits of students from the regular class and the Special Program in Mathematics (SPM) in terms of time management, concentration, and preparation for examination, as well as their level of academic performance in mathematics. Moreover, it sought to examine if there was a significant relationship between the study habits and academic performance of students. This study employed descriptive-correlation method and data were collected using an adopted survey questionnaire. Similarly, the students' grades in mathematics were collected from the teacher's records. The participants of this study were forty-eight (48) students from Sarrat National High School, where twenty-four (24) students came from each class. The data gathered were analyzed using frequency, percentage, mean, standard deviation, and Pearson r. The findings revealed that the students from both classes have high level of study habits in terms of time management, concentration, and preparation for examination. Furthermore, SPM and regular class have outstanding and satisfactory performance, respectively. In regular class, it showed that time management and concentration were the best predictors of the academic performance of the students; however, examination preparation may not be a factor. Conversely, the study habits in terms of time management, concentration, and preparation for examination were associated with the academic performance of the students from SPM. Overall, the results indicate that study habits are important predictors as part of students' success in their academic performance in mathematics.

### INTRODUCTION

Academic success is strongly influenced by the way a student learns. The main goal of the curriculum is for Filipino learners to become mathematically proficient and critical problem solvers (MATATAG Curriculum, 2023). Mathematics is an essential subject that serves as a foundation for the development of various skills such as problem solving and critical thinking. Herewith, it emphasizes the importance of the development of 21st-century skills among students, which are significant to prepare them for higher education and future careers. Despite its importance, several issues continue to arise.

The academic performance of students in mathematics has been a major subject of research for many years. Through the years, students have perceived mathematics as a difficult subject due to its abstract nature, which negatively affects their performance. This is evident when the Philippines joined in international assessments particularly in Programme for International Student Assessment (PISA). In 2018, the results revealed that the Philippines ranked second to the lowest with a score of 353 in Mathematics. Similarly, the country participated again in PISA 2022 and the result showed that among 81 countries, the Philippines ranked 76th in mathematics, with scores below the baseline proficiency (OECD, 2023). This reflects that there is a need to revisit and make possible interventions about the factors affecting

the academic performance of the students.

Studies reveal that study habits are one factor that affects the students' performance in mathematics. Study habits are routines and strategies that students consistently use in their studies. These habits, including time management, concentration, and preparation for examination techniques, play a crucial role in shaping the learners' academic performance. Students in different classroom settings demonstrate differences in their study habits. Frequently, those who have inconsistent study habits may perform poorly than those who have study schedule. For example, in preparation for an examination, if students have a review plan and organized notes for each subject, there is a higher probability that they will get higher scores. As opposed to students who do not have any preparations, they will perform poorly. This is supported by the study of Mughal, Hussain, and Sultana (2025) that high achievers showed better time management skills as well as more organized study habits than the low performers. This implies that there is a significant relationship between how a person studies and how it affects the outcome of their performance.

In secondary education, students are often placed into different types of classes according to their abilities and interests. Among these are regular classes, which are more heterogenous, as they have diverse potentials, talents and intellectual abilities, while special classes

<sup>1</sup> Mariano Marcos State University, Philippines

\* Corresponding author's e-mail: [valdezgracelyn86@gmail.com](mailto:valdezgracelyn86@gmail.com)

consist of students who receive an enriched curriculum and additional time following the functional academics (Maula & Lina, 2022). In the Philippines, a specialized program like Special Program in Mathematics (SPM) is designed for selected groups of students, provided with a more advanced and focused curriculum. As regular classes and special classes differ in their academic performance in mathematics, the latter has more structured and strategic routines, may encourage students to adopt more organized and independent study strategies. Since special classes are more advanced, it reflects that students do not wish to fall behind but rather aspire to achieve above average. Though students from regular classes have different potentials and abilities, some still may rely on guided instruction. With this, the study of Pratama and Tantiani (2020) states that the students from superior class have an advantage to be prioritized to take part in academic competitions such as Math Olympiads. This study aimed to determine the impact of study habits in terms of time management, concentration, and preparation for examination techniques on the academic performance of students in regular class and Special Program in Mathematics (SPM). Specifically, it sought to determine their level of study habits and academic performance. Therefore, this study aimed to answer the following questions:

1. What is the level of study habits of students in terms of:
  - a. Time management?
  - b. Concentration?
  - c. Preparation for examination?
2. What is the academic performance of students in terms of their grades?
3. Is there a significant relationship between the study habits and academic performance of students?

## LITERATURE REVIEW

### Academic Performance

Academic performance refers to the degree to which students achieve educational goals, as reflected through continuous assessments or their grade point average (Hailu et. al., 2024). It indicates a student's mastery of subject matter and the ability to apply that knowledge. The MATATAG Curriculum emphasizes mastery learning to ensure that learners reach a certain level of proficiency to be able to engage in a new learning task successfully, specifically in mathematics education. Academic performance is influenced by many interacting factors in the learning process (Olvidado & Doronio, 2026). Such factors include attitudes towards mathematics, study habits and motivation.

Despite this idealistic vision, Filipino students generally show low academic performance in mathematics compared to other countries, particularly in international assessments like PISA and TIMSS. This is supported by the study of Ponnuraj (2023), wherein one negative factor of academic performance is lack of study habits among students. This is the issue that most students experience, which adds to their bad performance on tests and exams.

It suggests that students need to develop strong study habits in order to achieve well. Likewise, poor study habits can reduce the academic performance of even the most gifted students (Garima, 2020). In relation to this, the study found out that good study habits have a positive correlation with academic achievement and that students who follow a proper study schedule have higher academic achievements. With this thought, it reflects that academic performance is strongly influenced by different factors and one of them is study habits.

### Study Habits

Numerous studies have analyzed the factors affecting the academic performance of students. Findings show that study skills such as personal study habits (Mensah et. al., 2024), study techniques (Cesar et. al., 2024), and strategic study approaches (Suleiman et. al., 2024) are necessary for enhancing students' academic performance. The study habits of students can be a crucial indicator of improving their performance. Moreover, the method of learning of a student is a necessary factor in influencing the learning outcomes in education at all levels (Uyangoren & Ibojo, 2024).

The way students learn a particular lesson differs from one to another as they are deemed to have different learning styles. Study habit is the routine and habit that students carry out in order to complete a certain learning task (Dagoc & Oco, 2024). These habits include how students manage their time, how they concentrate on the tasks to be done, and how they prepare for examinations. According to Pathuddin, *et al.* (2025), time management has a significant effect on student achievement in mathematics. They revealed that students who effectively manage their time for studying and completing assignments are more likely to achieve higher learning outcomes. This shows that students should be aware of utilizing their time well in their studies to perceive good results in their academics. Similarly, concentration affects students' performance if they focus on lessons and respond more effectively to what they are learning (Ghozelin, Hadiyanti, & Kriswanto, 2023). In terms of preparation for examinations, Malangen (2021) suggests that students should manage their time effectively to improve learning and engage in review strategies that could give them better learning outcomes. Therefore, developing the study habits of students at an early age is crucial to discovering what suits them best.

Several theories support the importance of having effective study habits in learning. Behaviorist theory by B. F. Skinner suggests that behaviors are acquired through the process of reinforcement and punishment. For example, positive reinforcement like rewards for good grades can encourage students to maintain effective study habits. This is supported by the study of Good & Putra (2024) stating that behaviorist theory provides a positive contribution in building good learning habits, increasing motivation, and reinforcing understanding through repetition and direct feedback.

On the other hand, the Habit Loop, popularized by Charles Duhigg, consists of three component concepts: cue, routine, and harmony. Cuing environment is the arrangement of time, place, or incidents; routine is the repetitive pattern of activities; and harmony is an outcome of activating the habit where students may feel satisfied when their needs are fulfilled (Chen, et. al., 2020). For example, a specific time of day (cue) might trigger studying (routine), which is reinforced by the feeling of accomplishment (harmony). Likewise, the Self-Regulation theory by Albert Bandura states that “humans are able to control their behavior through a process known as self-regulation”. In line with this theory, students have more autonomy in their learning, which means that they make their own learning strategies. For example, students can plan study sessions, choose effective learning techniques, and reflect on their performance to improve future study habits.

### Impact of Study Habits on Academic Performance

Study habits can make an impact on students’ academic performance. Academic performance is shaped by a combination of factors, including average grades, standardized test results, and evaluations of overall coursework. Numerous research has studied how study habits could affect the students’ performance in their academic life. The study conducted by Castillo, *et al.* (2023) states that the way a student studies affects the result of his or her performance. Likewise, the study of Bentil (2023) revealed that study habits concerning concentration, time management, and examination are significantly correlated with students’ overall academic performance.

The same findings apply to the study of Kalappa & Narayanaswamy (2025). They revealed that there exists a significant relationship between study habits and mathematics achievement among secondary students. The findings suggest that if students improve their study habits, their academic outcomes in mathematics will also improve. This means that students who exhibit better study habits tend to perform better in mathematics compared to those with poor study habits. Time management is one category of study habits. With this, it is concluded in the study of Lu, *et al.* (2024) that one factor affecting the academic performance of students is time management. Likewise, the students’ study habits and their academic achievement in mathematics have positive relationship, indicating that effective study habits contribute to improved academic achievement in the subject (Yadav, 2024).

Poor and good study habits of students make different effects in the performance of students. Poor study habits are caused by the practice of procrastination, managing time inefficiently, cramming, and allowing distractions like the use of social media. For this reason, the study of Safi (2025) revealed that poor study habits are associated with lower performance. On the other hand, students with good study habits perform better academically. With

this, it is observed that students with good study habits have better achievement outcomes compared to those with poor study habits.

### Regular Class and Special Program

Students have different abilities and interests, especially when it comes to mathematics. The revised mathematics curriculum aims to develop the proficiency of students in solving mathematical problems critically through various policies and guidelines. These policies include the DepEd Order No. 55, s. 2010 and DepEd Order No. 46 s 2012, which focuses on implementing science and mathematics education at the secondary level. Furthermore, DepEd Order No. 010, s. 2024 states that the MATATAG curriculum is supported by the National Mathematics Program (NMP), which is additional curricular program that focuses on developing literacy and numeracy among students.

The study of a Hidayati, *et al.* (2020) emphasized the difference in the special class and the regular class at each level. According to them, special classes are characterized to be more active, confidently ask questions when given the opportunity, acknowledge their weaknesses, and solve problems. This condition is different from the regular class as there are students who do not talk much, show low self-confidence and are reluctant when asked to work on their problems, and if there are smart students in the group, they prefer to be silent and not articulate their opinions. Herewith, it implies that there is a difference in the behavior and academic performance of these two groups.

The academic success of students from regular and special classes is influenced by their study habits. San Jose (2022) indicated that there are factors that positively contributed to the students’ performance when joining mathematics competitions, and one of them are their study habits. Furthermore, the study of Balbacal (2023) revealed that students’ study habits in mathematics in terms of homework and assignments, note taking, and time allocation were highly significant to their academic success.

## MATERIALS AND METHODS

### Research Design

This study employed a descriptive-correlation method, which was necessary for an adequate evaluation of how students from regular and special programs in mathematics study and how this relates to their academic performance. It is descriptive because it involves description, analysis, and interpretation of the level of study habits of students in terms of time management, concentration, and preparation for examination. It is correlational since it determined possible relationships between the study habits and academic performance of students in regular class and in special program in mathematics.

### Research Instrument

In gathering the data, a survey questionnaire regarding

the study habits of students was utilized. Specifically, a Likert scale consisting of the students' study habits in terms of their time management, concentration, and preparation for examination was administered. This tool for evaluation was adopted from the study conducted by Tagud & Valle (2023).

On the other hand, to determine the academic performance of students in terms of their grade in mathematics for the first quarter of A.Y. 2025-2026, the data were collected from the teacher's records to uphold reliability and accuracy.

### Population and Sampling

The participants in this study were the students from Sarrat National High School. This school provided an avenue where regular classes and special program in mathematics are present. Specifically, a cluster-sampling technique was employed wherein a section from regular class, which consists of 24 students and another section from the special program with the same number of students were selected.

### Data Collection Procedures

The researcher first obtained permission to conduct the study through a letter addressed to the office of the Superintendent of the Schools Division of Ilocos Norte. After which, another letter was submitted to the principal of Sarrat National High School asking permission to carry out the research.

Upon the approval of the letters, the researcher ensured that the student-participants were completely informed of the study by distributing parents' consent and students' assent forms, prioritizing voluntary participation of the students. They were given two days to complete the forms. The researcher respects the participants' rights by allowing them to withdraw from the research without any penalty.

The participants were given detailed instructions about the survey questionnaire that they accomplished to ensure the clarity of the material. Printed copies were distributed for convenience. The respondents were given a week to complete the questionnaire, allowing them to complete it at their preferred time without interrupting classes or other activities that may occur. After administering the survey-questionnaire to the students, they were retrieved immediately alongside their grades from the teacher's record.

The data collected were tabulated, compared, analyzed and interpreted using the most appropriate statistical tools. Data was kept with utmost confidentiality and securely storing data to protect privacy. Furthermore, all personal data and information were stored securely and accessed only by the researcher.

### Data Analysis Plan

The data gathered were analyzed using frequency, percentage, mean, and standard deviation to determine the level of study habits and academic performance

of students. The analyzed data for study habits were interpreted using the scale below. To interpret the grades of students, the grading scale, with its corresponding descriptors, was based on the DepEd Order No. 8 s. 2015. Lastly, Pearson  $r$  was utilized to determine the relationship between the study habits and academic performance of students from the regular class and special program in mathematics. This was used to reveal if the study habits and academic performance of students were correlated.

**Table 1:** Descriptive Interpretation of Mean Range

| Mean Range  | Descriptive Interpretation |
|-------------|----------------------------|
| 4.20 – 5.00 | Very High                  |
| 3.40 – 4.19 | High                       |
| 2.60 – 3.39 | Moderately High            |
| 1.80 – 2.59 | Low                        |
| 1.00 – 1.79 | Very Low                   |

**Table 2:** Descriptive Interpretation of Grades

| Grading Scale | Descriptive Interpretation |
|---------------|----------------------------|
| 90 – 100      | Outstanding                |
| 85 – 89       | Very Satisfactory          |
| 80 – 84       | Satisfactory               |
| 75 – 79       | Fairly Satisfactory        |
| 70 and below  | Poor/Failed                |

### Ethical Considerations

The researcher was committed to upholding ethical standards throughout the study to protect the rights, welfare, and dignity of all participants. To ensure the study's validity and adherence to ethical standards throughout the research process, it obtained approval and permission from the University Research Ethics Review Board (URERB). Moreover, consent was obtained from the office of the Schools Division of Ilocos Norte and the principal of Sarrat National High School.

Prior to the students' involvement in the research, parents' consent and students' assent forms were provided to ensure that they were fully aware of the research purpose and procedures. This formalized the participants' consent for the researcher to collect the data required for this study. Moreover, the students were informed that participation was completely voluntary to take part in the research and that they could withdraw at any time without any negative consequences.

Protecting the privacy and anonymity of the participants was an ethical priority of this research. All data collected were treated with strict confidentiality and used solely for the purpose of this study. Participants' identities were not disclosed, and the researcher assured that their responses remained anonymous and were kept with utmost privacy. Confidentiality was maintained throughout the research process. All personal data were stored securely and accessed only by the researcher.

Participants were not compelled to engage in any activity

that may induce harm. This study only requested the participants to complete the survey questionnaire. Should any participant did not feel comfortable, they could withdraw from the study at any point without penalty. This study could benefit the respondents to reflect on their study habits and how they could improve them to achieve better outcomes. Moreover, teachers would be informed about the level of study habits of students and how they could optimize their teaching strategies to tailor the students' needs. Policy makers and curriculum

developers would also provide insights into crafting policies that emphasize differentiated instruction. This could also open opportunities into providing students with programs and resources that reinforce study habits leading to better academic performance.

## RESULTS AND DISCUSSION

### Level of Study Habits of Students from SPM and Regular Class

Table 3 provides the level of study habits of students from

**Table 3:** Study Habits of Students from SPM and Regular Class

| Indicators                                                                                                       | SPM         |                            | Regular Class |                            |
|------------------------------------------------------------------------------------------------------------------|-------------|----------------------------|---------------|----------------------------|
|                                                                                                                  | Mean        | Descriptive Interpretation | Mean          | Descriptive Interpretation |
| <b>I. Time Management</b>                                                                                        |             |                            |               |                            |
| 1. I find it easy to follow my study schedule.                                                                   | 3.92        | High                       | 3.96          | High                       |
| 2. When I decide to study, I can start and keep going.                                                           | 3.96        | High                       | 3.88          | High                       |
| 3. I schedule well my study time to avoid cramming.                                                              | 3.79        | High                       | 3.79          | High                       |
| 4. I spend more time on hard subjects.                                                                           | 3.71        | High                       | 3.71          | High                       |
| 5. My study time is under my control. It does not disturb other things.                                          | 4.00        | High                       | 3.58          | High                       |
| 6. I set time for my studies to avoid pressure.                                                                  | 4.21        | High                       | 3.79          | High                       |
| 7. I set deadlines for myself if they are not provided for me.                                                   | 4.00        | High                       | 3.75          | High                       |
| <b>Composite Mean</b>                                                                                            | <b>3.94</b> | <b>High</b>                | <b>3.78</b>   | <b>High</b>                |
| <b>II. Concentration</b>                                                                                         |             |                            |               |                            |
| 1. I work 50 minutes and take a 10-minute break.                                                                 | 3.96        | High                       | 3.71          | High                       |
| 2. I study in a place free from distractions.                                                                    | 4.46        | Very High                  | 3.92          | High                       |
| 3. I practice the materials I am learning by reciting out loud.                                                  | 3.92        | High                       | 3.75          | High                       |
| 4. I recall readily those things which I have studied.                                                           | 4.13        | High                       | 3.88          | High                       |
| 5. I find that I am able to concentrate - that is, give undivided attention to the task for at least 20 minutes. | 3.88        | High                       | 3.75          | High                       |
| 6. I am confident with the level of concentration I am able to maintain.                                         | 3.79        | High                       | 3.67          | High                       |
| 7. I have an accurate understanding of the material I wish to remember.                                          | 3.83        | High                       | 3.75          | High                       |
| <b>Composite Mean</b>                                                                                            | <b>3.99</b> | <b>High</b>                | <b>3.77</b>   | <b>High</b>                |
| <b>III. Preparation for Examination</b>                                                                          |             |                            |               |                            |
| 1. I feel sure in my study methods.                                                                              | 4.00        | High                       | 3.71          | High                       |
| 2. I answer practice questions to study.                                                                         | 4.17        | High                       | 3.50          | High                       |
| 3. I study in a group or with my friends.                                                                        | 3.96        | High                       | 3.83          | High                       |
| 4. I adjust my way of studying for different subjects.                                                           | 3.92        | High                       | 3.79          | High                       |
| 5. I finish my exams within the allowed time.                                                                    | 4.04        | High                       | 3.88          | High                       |
| 6. Before answering a discussion test, I first make an outline.                                                  | 3.63        | High                       | 3.63          | High                       |
| 7. I can guess well what questions will come out in the examination.                                             | 3.58        | High                       | 3.42          | High                       |
| <b>Composite Mean</b>                                                                                            | <b>3.90</b> | <b>High</b>                | <b>3.68</b>   | <b>High</b>                |
| <b>Overall Mean</b>                                                                                              | <b>3.95</b> | <b>High</b>                | <b>3.74</b>   | <b>High</b>                |

Note: 4.20-5.00 = Very High; 3.40-4.19 = High; 2.60-3.39 = Moderately High; 1.80-2.59 = Low; 1.00-1.79 = Very Low

the Special Program in Mathematics (SPM) and Regular Class in terms of time management, concentration, and preparation for examination.

Based on the results above, the study habits of the students from the Special Program in Mathematics (SPM) have an overall mean of 3.95 while the regular class have 3.74. This means that the students from both classes have high level of study habits in terms of the three components. Among the three variables, concentration garnered the highest composite mean of 3.99 for SPM while time management has the highest composite mean of 3.78 for the regular class.

Specifically, the students have high level of time management, having a composite mean of 3.94 from the SPM and 3.78 from the regular class. The results convey that the students can balance their responsibilities and effectively plan and control their time to accomplish their tasks. For SPM, setting time for their studies to avoid pressure obtained the highest mean of 4.21, which can be interpreted as High. This indicates that students are able to prioritize their studies for them to be organized and composed with their tasks on hand. On the other hand, the students from the regular class follow their study schedule, having the highest mean of 3.96, which is interpreted as high. This indicates that students create plans and allocate time for particular tasks or topics. When proper time management skills are established, pressure and anxiety are reduced, and academic performance is increased (Elmahdy & Anwer, 2023).

Meanwhile, the students' level of concentration from both classes are high. The SPM class has a composite mean of 3.99 while the regular class has 3.77. Studying in a place free from distractions have the highest mean of 4.46 and 3.92 from SPM and regular class, respectively. This shows that students have high level of concentration given that they are in a positive learning environment free from distractions. Research has shown that distractions have a negative impact on studying and learning outcomes. Kaur (2025) highlights that distractions pose significant challenges for students in maintaining focus and retaining information, which influences their academic performance. This indicates that students with higher concentration tend to perform better in mathematics (Vergara & Balquedra, 2024). Moreover, the student's academic success in concentration was a significant positive predictor of mathematics achievement.

On the other hand, the students have a high level of preparation for their examinations from SPM and regular class, having a composite mean of 3.90 and 3.68, respectively. This means that they get themselves ready to take a test by reviewing, practicing, and understanding the material that will be covered in their examination, helping them improve their knowledge and confidence to perform well. Cruzpero, *et al.* (2023) indicated that student preparation has a significant effect on their mathematics examination result. Answering practice questions to study garnered the highest mean of 4.17 for the SPM, which is interpreted as High. This indicates that students test

their understanding of the material to reinforce what they have learned, enabling them to identify which topics they know well and which ones they need to review more. Conversely, finishing the exams within the allowed time garnered the highest mean of 3.88 for the regular class, which is interpreted as High. Every examination has a time limit, and in mathematics, it also requires computation which may add pressure in finishing the test. With this, managing the time effectively is crucial to ensure that the students can read, understand, and answer the exam completely without rushing or leaving anything unanswered.

### Level of Academic Performance of Students from SPM and Regular Class

This portion discusses the academic performance of students from regular class and the special program in mathematics (SPM) in terms of their grades in mathematics. The grading scale and its interpretation are based on the grading system provided by the Department of Education (DepEd).

The grades of the students from SPM have a mean of 93.96% with a standard deviation of 2.39, which can be interpreted as an outstanding performance. This implies that they exceed the core requirements in terms of fundamental knowledge, skills, and core understanding and can transfer them automatically through authentic performance tasks. Meanwhile, the regular class has a mean of 82.88% and a standard deviation of 5.24, which indicates satisfactory performance. This means that the students have gained fundamental knowledge and skills and core understanding with little guidance. Moreover, they can transfer these understandings through authentic performance tasks.

Specifically, twenty-three (95.83%) out of 24 SPM students, which has the highest percentage, and two (8.33%) out of 24 students from the regular class have an outstanding performance in mathematics. This means that they exceed the core requirements in acquiring fundamental knowledge, skills, and core understanding, making them able to transfer them through authentic performance tasks.

One (4.17%) SPM student and nine (37.50%) from regular class, which has the highest frequency, have a very satisfactory grade, which indicates that the students have gained fundamental knowledge, skills and core understanding and transfers them independently through authentic performance tasks (DM No. 158, s. 2011). Moreover, six (25%) from the regular class have satisfactory performance, which means that they have developed fundamental knowledge, skills, and core understanding, with little guidance from the teacher and/or with some assistance from peers. Lastly, seven (29.17%) from regular class have fairly satisfactory performance, which signifies that the students at this level possess the minimum knowledge and skills and core understandings but need help throughout the performance of authentic tasks (DM No. 158, s. 2011).

**Table 4:** Study Habits of Students from SPM and Regular Class

| Grading Scale              | Description         | SPM                |               | Regular Class       |               |
|----------------------------|---------------------|--------------------|---------------|---------------------|---------------|
|                            |                     | Frequency          | Percentage    | Frequency           | Percentage    |
| 90-100                     | Outstanding         | 23                 | 95.83         | 2                   | 8.33          |
| 85-89                      | Very Satisfactory   | 1                  | 4.17          | 9                   | 37.50         |
| 80-84                      | Satisfactory        | 0                  | 0.00          | 6                   | 25.00         |
| 75-79                      | Fairly Satisfactory | 0                  | 0.00          | 7                   | 29.17         |
| 70 and below               | Poor/Failed         | 0                  | 0.00          | 0                   | 0.00          |
| <b>Total</b>               |                     | <b>24</b>          | <b>100.00</b> | <b>24</b>           | <b>100.00</b> |
| <b>Mean</b>                |                     | <b>93.96</b>       |               | <b>82.88</b>        |               |
| <b>Standard Deviation</b>  |                     | <b>2.39</b>        |               | <b>5.24</b>         |               |
| <b>Overall Performance</b> |                     | <b>Outstanding</b> |               | <b>Satisfactory</b> |               |

Note: 90-100 = Outstanding; 85-89 = Very Satisfactory; 80-84 = Satisfactory; 75-79 = Fairly Satisfactory; 70 and below = Poor/Failed

No students from both classes failed in the first quarter. The results show that the students have performed very well in this quarter, which means that they can do better to maintain or improve their academic performance for the succeeding quarters with proper support and guidance, alongside having consistent study habits.

#### Relationship Between the Study Habits and Academic Performance of Students from SPM and Regular Class

This section presents the findings on the relationship between the study habits and academic performance of the students from the regular class and Special Program in Mathematics (SPM). Pearson  $r$  was utilized to determine if there was a significant relationship between the study habits and academic performance of students from the two classes. This revealed if the study habits and academic performance of students were correlated.

Table 5 shows the correlation analysis between the study habits and academic performance of the students from the Special Program in Mathematics (SPM).

The findings show that the students' study habits are significantly correlated with their academic performance in mathematics ( $r = 0.556^{**}$ ,  $p = .005$ ). This means that a high level of study habits in terms of time management, concentration and preparation for examination increases academic performance. The findings in the study of Omoniyi and Fawehinmi (2025) provide strong evidence that specific study habits are significantly correlated with academic performance in mathematics among public secondary school students. It emphasizes that focused attention and time management are essential for the students' academic success, as successful students effectively manage their time, set goals, and eliminate interruptions.

In particular, time management ( $r = 0.517^{**}$ ,  $p = .009$ ) and academic performance have a significant relationship at the 0.05 and 0.01. This indicates that a high level of time management increases the learning outcome of the students. The study of Mariano *et al.* (2022) concluded that there is a very high positive significant relationship between time management skills and

**Table 5:** Correlation analysis between study habits and academic performance of the students from SPM

| Study Habits     | $r$     | p-value | Interpretation |
|------------------|---------|---------|----------------|
| Time Management  | 0.517** | 0.009   | Significant    |
| Concentration    | 0.498*  | 0.013   | Significant    |
| Exam Preparation | 0.430*  | 0.036   | Significant    |
| Overall          | 0.556** | 0.005   | Significant    |

\*\* Significant at 0.01 probability level; \* Significant at 0.05 probability level

academic performance of the students, which means that cultivating time management skills among them improve their academic performance. Meanwhile, concentration ( $r = 0.498^{*}$ ,  $p = .013$ ) and preparation for examination ( $r = 0.430^{*}$ ,  $p = .036$ ) are significantly correlated with the students' academic performance in mathematics at the 0.05. This reveals that these components of study habits are strong predictors in the academic success of students in mathematics.

As shown in Table 6, the overall level of study habits

of students from regular class is significantly correlated with their academic performance in mathematics ( $r = 0.459^{*}$ ,  $p = .024$ ) at the 0.05. This means that higher academic performance is achieved by the students when they establish their study habits in terms of time management and concentration. This is supported by the study of Linga (2024) that the study habits of students and their academic performance are positively correlated. This indicates that the increase in hours of study directly affects the increase of students' academic performance.

Moreover, having proper study habits are important determinants of how well the students will perform in their mathematics subject.

It can also be noted that time management has a significant relationship with the academic performance of students in mathematics ( $r = 0.562^{**}$ ,  $p = .004$ ). This means that having proper time management helps the

students to create study schedule that will enable them to increase their performance. The findings in the study of Balbacal (2023) revealed that time allocation, which involves dedicating adequate time to studying and having consistent study plan regularly, has a significant relationship with their academic performance in mathematics. These results imply that the study habits of

**Table 6:** Correlation analysis between study habits and academic performance of the students from regular class

| Study Habits     | r       | p-value | Interpretation  |
|------------------|---------|---------|-----------------|
| Time Management  | 0.562** | 0.004   | Significant     |
| Concentration    | 0.433*  | 0.035   | Significant     |
| Exam Preparation | 0.215   | 0.313   | Not Significant |
| Overall          | 0.459*  | 0.024   | Significant     |

\*\* Significant at 0.01 probability level; \* Significant at 0.05 probability level

students in this area have an impact on their performance in mathematics.

Furthermore, concentration is significantly correlated with the academic performance of students ( $r = 0.433^*$ ,  $p = .035$ ) at 0.05. This indicates that concentration is a significant positive predictor of mathematics achievement. However, no significant relationship exists between the preparation for examination of students to their academic performance ( $r = 0.215$ ,  $p = .313$ ). This finding implies that the study habits of students in terms of preparation for examination may not be a factor that influences their performance.

Generally, the correlational analysis indicates that there is a significant level of probability that the academic performance of the students from the regular class is associated with their study habits.

## CONCLUSION

The findings revealed that the students from both classes have high level of study habits in terms of time management, concentration, and preparation for examination. On the other hand, the students from regular class and Special Program in Mathematics (SPM) obtained satisfactory and outstanding performance, respectively.

The study also explored how study habits relate to students' academic performance. The findings revealed that time management and concentration were the best predictors on the academic performance of students from regular class, however, examination preparation may not be a factor. In contrast, all three components were highly associated with the academic performance of students from the Special Program in Mathematics (SPM). Overall, it is important to note that students should be able to discover what study routines suit them best in order to help them achieve success in their learning.

Based on the findings and discussion of this study, several recommendations are offered. First, the students should continue practicing, assessing, and refining their study habits to help them learn best and eventually achieve

better performance. Second, teachers should continue promoting effective study habits through classroom instruction, and regular feedback for students to establish better study habits.

## Acknowledgements

Above all, the highest praise and deepest gratitude are offered to Almighty God for His infinite grace, wisdom, strength, and unwavering guidance throughout the completion of this study.

The researcher extends heartfelt appreciation to Mariano Marcos State University for providing an enriching academic environment, opportunities, and resources that made this study successful.

She also expresses sincere gratitude to the Schools Division of Ilocos Norte (SDOIN) and Sarrat National High School for granting permission to conduct the study and for their generous support and cooperation throughout the data collection process.

Sincere appreciation is extended to her research adviser, Dr. Edrian D. Saraos, for his invaluable guidance, insights, encouragement, and unwavering support throughout the conduct of this study.

Special thanks are likewise extended to the student-participants and their subject teacher whose willingness to participate, time and honest responses provided the valuable data necessary for this study.

Finally, the researcher expresses heartfelt gratitude to her family and to all those who shared their encouragement, assistance, and support throughout the completion of this study. Their contributions are sincerely acknowledged and greatly appreciated.

## REFERENCES

- Balbacal J. B. (2023). Study Habits and Mathematics Performance Towards the Development of a Study Guide. *INSTABRIGHT e-GAZETTE*, 5(2). <https://uploads.strikinglycdn.com/files/c23dd63-69a4-4dd3-ad89-c23deaf80329/1409%20BALBACAL.pdf>
- Bentil, J. (2023). Study Habits and Academic Performance

- Among Public Junior High School Students in the Ekumfi District: Investigating the Controlling Effect of Learning Styles. *European Journal of Social Sciences Studies*, 8(6), 187-206. <https://doi.org/10.46827/ejsss.v8i6.1505>
- Castillo A. I., Tus J., Allag C. F., Bartolome A. J., Pascual G. P., & Villarta, R. O. (2023). The Impact of Study Habits on the Academic Performance of Senior High School Students Amidst Blended Learning. *Psychology and Education: A Multidisciplinary Journal*, 10(5), 483-488. <https://doi.org/10.5281/zenodo.8122328>
- Cesar, J., Lincoln, R., Elizabeth, Cesar, J., Lincoln, R., & Elizabeth. (2024). Factors influencing the academic performance of peruvian university students. *EduSol*, 24(88), 96-105. [http://scielo.sld.cu/scielo.php?script=sci\\_arttext&pid=S1729-80912024000300096&lng=en&nrm=iso&tln=en](http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1729-80912024000300096&lng=en&nrm=iso&tln=en)
- Chen, W., Chan, T. W., Wong, L. H., Looi, C. K., Liao, C. C. Y., Cheng, H. N. H., Wong, S. L., Mason, J., So, H., Murthy, S., Gu, X., & Pi, Z. (2020). IDC theory: habit and the habit loop. *Research and Practice in Technology Enhanced Learning*, 15(10), 1-19. <https://doi.org/10.1186/s41039-020-00127-7>
- Cruzperero R., Leyga, B. I., & Dajang, J. T. (2023). Effects between the Completed Study Preparation, Lunch Options, and Math Exam Scores Among High School Students. *ResearchGate*. <https://doi.org/10.13140/RG.2.2.12434.47047>
- Dagoc, R. P., & M. Oco, R. (2024). Pupils' Study Habits and Academic Performance. *International Journal of Multidisciplinary Research and Analysis*, 7(3), 1336-1342. <https://doi.org/10.47191/ijmra/v7-i03-58>
- DepEd MEMORANDUM No. 158, s. 2011. *Pilot Adoption of Standards-Based Assessment and Rating System at the Secondary Level for School Year (SY) 2011-2012*. Released 15 July 2011. [https://www.deped.gov.ph/wp-content/uploads/2011/07/DM\\_s2011\\_158.pdf](https://www.deped.gov.ph/wp-content/uploads/2011/07/DM_s2011_158.pdf)
- DepEd Order 8, s. 2015. *Policies and Guidelines on Classroom Assessment for the K to 12 Basic Education Program*. Released 1 April 2015. [https://www.deped.gov.ph/wp-content/uploads/2015/04/DO\\_s2015\\_08.pdf](https://www.deped.gov.ph/wp-content/uploads/2015/04/DO_s2015_08.pdf)
- DepEd Order 46, s. 2012. *Policy Guidelines on the Implementation of the Special Curricular Programs at the Secondary Level*. Released 11 June 2012. <https://www.deped.gov.ph/2012/06/11/do-46-s-2012-policy-guidelines-on-the-implementation-of-the-special-curricular-programs-at-the-secondary-level/>
- DepEd Order 55, s. 2010. *Policies and Guidelines on Strengthening Science and Mathematics Education at the Secondary Level*. Released 17 May 2010. <https://www.deped.gov.ph/2010/05/17/do-55-s-2010-policies-and-guidelines-on-strengthening-science-and-matematics-education-at-the-secondary-level/>
- DepEd Order No. 010, s. 2024. *Policy Guidelines on the Implementation of the MATATAG Curriculum*. Released 23 July 2024. [https://www.deped.gov.ph/wp-content/uploads/DO\\_s2024\\_010.pdf](https://www.deped.gov.ph/wp-content/uploads/DO_s2024_010.pdf)
- Elmahdy, M., & Anwer, M. (2023). Effect of Time-Management on the Academic Performance of Medical Students, Benha University: A Cross-Sectional Study. *The Egyptian Journal of Hospital Medicine*, 93, 7382-7392. <https://doi.org/10.21608/ejhm.2023.324583>
- Garima (2020). Study Habits and Their Predictors: An Overview of Previous Studies. *Ilkogretim Online - Elementary Education Online*, 19(3), 5327-5336. <https://doi.org/10.17051/ilkonline.2020.03.735677>
- Ghodelin, V. M., Hadiyanti, A. H. D., & Kriswanto, Y. B. (2023). Improving Students' Concentration and Learning Outcomes through Project-Based Learning Assisted by Games as the Method. *Jurnal Pajar (Pendidikan Dan Pengajaran)*, 7(3), 630-638. <https://doi.org/10.33578/pjr.v7i3.9400>
- Good, S., & Putra. (2024). Behavioristic Learning Theory and Its Implications in Social Studies Learning. *International Journal of Academic Pedagogical Research*, 8(12), 122-125. <http://ijeais.org/wp-content/uploads/2024/12/IJAPR241222.pdf>
- Hailu, M., Abie, A., Mehari, M. G., Dagnaw, T. E., Worku, N. K., Esubalew, D., Limenh, L. W., Delie, A. M., Melese, M., & Fenta, E. T. (2024). Magnitude of academic performance and its associated factors among health science students at Eastern Ethiopia University's 2022. *BMC Medical Education*, 24(1288), 1-10. <https://doi.org/10.1186/s12909-024-06296-z>
- Hidayati R., Hidayah N., & Sunaryono N. (2020). Analysis of Differences in Student Confidence in Special Classes and Regular Classes: A Comparative Study. *Jurnal Pendidikan Indonesia*, 9(4), 649-655. <https://doi.org/10.2991/assehr.k.201204.061>
- Kalappa R.V., & Narayanaswamy M. (2025). Impact of Study Habits on the Achievement in Mathematics of Secondary School Students. *Journal of Emerging Technologies and Innovative Research*, 12(1), 566-574. <https://www.jetir.org/papers/JETIR2501753.pdf>
- Kaur, S. (2025). Unseen Barriers: The Impact of Distraction on Student Learning. *Global Journal of Advanced Research*, 12(2), 25-33. <https://gjar.org/publishpaper/vol12issue2/s1218.pdf>
- Linga, J. (2024). Factors Affecting Students' Mathematics Academic Performance in the IB MYP Programme: Basis for the Formulation of an Action Plan. *The Korean Conference on Education 2024: Official Conference Proceedings*, 451-466. <https://doi.org/10.22492/issn.2759-7563.2024.35>
- Lu, J., Liu, Y., Liu, S., Yan, Z., Zhao, X., Zhang, Y., Yang, C., Zhang, H., Su, W., & Zhao, P. (2024). Machine learning analysis of factors affecting college students' academic performance. *Frontiers in Psychology*, 15. <https://doi.org/10.3389/fpsyg.2024.1447825>
- Malangen, A. (2021). Pre-Examination Study Preparation and its Effect on the Summative Test Score in General Mathematics of Grade 11 Senior High School Students of Dr. Carlos S. Lanting College. *International Journal of Multidisciplinary: Applied Business and Education Research*, 2(9), 805-817. <http://dx.doi.org/10.21608/ejhm.2023.324583>

- org/10.11594/ijmaber.02.09.10
- Department of Education. (2023). *MATATAG curriculum: Mathematics, Grades 1, 4, and 7*. MATATAG Mathematics Curriculum PDF
- Maula, I., & Lina, M. F. (2022). Regular Class vs. Special Class: How Can They Differ in English Achievement and Technology Usage?. *INSANLA Jurnal Pemikiran Alternatif Kependidikan*, 27(1), 41–52. <https://doi.org/10.24090/insania.v27i1.6507>
- Mensah, R. O., Amponsah, K. D., Babah, P. A., & Jibril, H. S. (2024). Factors affecting students' academic performance and teachers' efficiency in Ghana; a case study of Wa senior high school. *Cogent Arts and Humanities*, 11(1). <https://doi.org/10.1080/23311983.2024.2412944>
- Mughal, M. O., Hussain, M. K., & Sultana, M. (2025). A Comparative Analysis of High Achievers' and Low Achievers' Study Habits, Time Management on Academic Achievement of the Undergraduate Students in Karachi. *Dialogue Social Science Review*, 3(12), 51-64. <https://dialoguesreview.com/index.php/2/article/view/1259>
- OECD (2023). Education GPS - Philippines - Student performance (PISA 2018). *Gpseducation.oecd.org*. <https://gpseducation.oecd.org/CountryProfile?primaryCountry=PHL&treshold=5&topic=PI>
- Olvidado, M. F., & Doronio, F. I. R. (2026). Student Performance as Predicted by Learning Environment and Student Engagement. *Journal of Tertiary Education and Learning*, 4(2), 53-58. <https://doi.org/10.54536/jtel.v4i2.7714>
- Pathuddin, Sukayasa, M. B., Ikfal, & Rahmawati, S. (2025). The effect of time management and interest in learning mathematics: a case study of senior high school students in Palu Indonesia on students' learning achievement. *Heliyon*, 11(3). <https://doi.org/10.1016/j.heliyon.2025.e42048>
- Ponnuraj, S. P. (2023). Impact On Learning Habit and Academic Performance of Students. *ResearchGate*. <https://www.researchgate.net/publication/376109940>
- Pratama, A. Y., & Tantiani, F. F. (2022). Differences in Hardiness Between 8th Grade Students of Superior and Regular Class in SMPN 1 Ngunut Tulungagung. *KnE Social Sciences. International Conference of Psychology*, 99-108. <https://doi.org/10.18502/kss.v7i1.10204>
- Safi, R. (2025). The Impact of Study Habits on Academic Performance: A Meta-Analysis. *International Journal of Current Science Research and Review*, 8(7), 3566-3575. <https://doi.org/10.47191.ijcsrr/V8-i7-43>
- San Jose, M. T. (2022). Factors That Affect the Performance of Selected High School Students from The Third District of Albay in International Mathematics Competitions. *ASEAN Journal for Science Education* 1(1), 9-16. <https://ejournal.bumipublikasinusantara.id/index.php/ajsed/article/viewFile/31/31>
- Suleiman, I. B., Okunade, O. A., Dada, E. G., & Ezeanya, U. C. (2024). Key factors influencing students' academic performance. *Journal of Electrical Systems and Information Technology*, 11(41), 1-18. <https://doi.org/10.1186/s43067-024-00166-w>
- Tagud, E. C., & Valle, M. (2023). Study Habits and Skills: Its Influence on Students' Academic Performance. *International Journal of Research Publication*, 129(1), 346–361. <https://doi.org/10.47119/IJRP1001291720235279>
- Uyangoren, J. R., & Ibojo, D. T. M. (2024). Learning Styles and The Academic Performance of 1st Year Education Students: A Correlational Study. *American Journal of Multidisciplinary Research and Innovation*, 3(4), 176-182. <https://doi.org/10.54536/ajmri.v3i4.3304>
- Vergara, C. R., & Balquedra, A. B. (2024). Academic Success and Achievement of Freshmen University Students in Mathematics. *Open Access Library Journal*, 11(7), 1–18. <https://doi.org/10.4236/oalib.1111859>
- Yadav, N. (2024). Study of Academic Achievement of Mathematics Subject in the Context of Study Habits of Students. *International Journal of Scientific Research in Modern Science and Technology*, 3(2), 27–31. <https://doi.org/10.59828/ijrmst.v3i2.184ss>