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## THE LINK BETWEEN READING PROFICIENCY AND ACADEMIC ACHIEVEMENT AMONG JHS STUDENTS

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DOI: <https://www.doi.org/10.58257/IJPREMS38116>

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### ABSTRACT

This study examined the relationship between reading proficiency levels and academic achievement in Science, Mathematics, and English among Junior High School students at Mariano Matugas Memorial National High School. Utilizing a descriptive-correlational research design, data were collected through the use of the recent PHIL-IRRI results for reading proficiency and academic grades in the first and second quarters of the 2024-2025 school year. The findings revealed significant positive correlations between reading proficiency and academic performance in all three subjects, with Pearson correlation coefficients of 0.65 for Science, 0.60 for Mathematics, and 0.68 for English. These results highlight the importance of reading proficiency in academic success, suggesting that improvements in reading skills could lead to better performance across various subjects. The study underscores the need for targeted literacy interventions to enhance student achievement.

**Keywords:** Reading proficiency level, academic achievement, independent level, instructional level, frustration level, mariano matugas memorial national high school, junior high school.

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### 1. INTRODUCTION

Reading proficiency is the ability to read, understand, and interpret text accurately and fluently. It serves as a cornerstone of academic learning, empowering students to acquire knowledge across all subjects and develop critical thinking skills. According to Nation (2019), reading proficiency is essential for effective learning and overall academic success, as it enables learners to engage with educational content at a deeper level. Furthermore, the Programme for International Student Assessment (PISA) underscores the importance of reading literacy, emphasizing its role in equipping students with the skills necessary to navigate the demands of modern society (OECD, 2019).

Several studies have established a strong correlation between reading proficiency and academic achievement. For instance, Wexler, Fletcher & Vaughn (2021) highlight that student with higher reading proficiency tend to perform better in various subjects, including mathematics and science. Duke and Cartwright (2021) argue that comprehension skills are directly tied to cognitive development, which affects academic performance. Additionally, Kim, Petscher, Schatschneider & Foorman (2020) emphasize that limited reading skills create barriers to understanding complex texts, reducing overall educational attainment. Snowling and Hulme (2020) stress the importance of early intervention in reading education to prevent long-term academic struggles, while Perfetti and Stafura (2021) conclude that reading fluency is a predictive indicator of academic success.

Despite the acknowledged importance of reading, the Philippines ranked lowest in reading comprehension according to the 2018 PISA results, indicating a nationwide challenge in literacy (OECD, 2019). This issue is evident in Mariano Matugas Memorial National High School, where data reveals that out of 203 Junior High School students, 64 can read but struggle with comprehension, while 25 cannot read or comprehend at all. These alarming figures reflect a pressing need for targeted interventions to address literacy gaps and improve students' academic outcomes.

The purpose of this study is to examine the relationship between reading proficiency and academic achievement among Junior High School students.

By exploring this connection, the study aims to identify key factors influencing students' performance and provide insights that can inform strategies to enhance literacy and overall academic success. This research intends to contribute to the growing body of literature on reading education and its critical role in shaping students' educational journeys.

#### Statement of the Problem

This study aims to evaluate the reading proficiency levels of Junior High School students and their corresponding academic achievements in Science, Mathematics, and English at Mariano Matugas Memorial National High School, Tuboran, Del Carmen, Surigao del Norte, Siargao Division, during the School Year 2024-2025. The study seeks to explore the relationship between students' literacy skills and their performance in core academic subjects, ultimately aiming to propose targeted interventions for improvement. Specifically, this study seeks to answer the following questions:

1. What are the reading proficiency levels of the Junior High School students in terms of the following categories?

- 1.1. Independent Level;
- 1.2. Instructional Level; and
- 1.3. Frustration Level.
2. What are the academic achievements of the Junior High School students in the 1st and 2nd Quarters in the following subjects?
  - 2.1. Science;
  - 2.2. Mathematics; and
  - 2.3. English.
3. Is there a significant correlation between the reading proficiency levels and the academic achievements of the students in Science, Mathematics, and English?
4. Based on the findings, what interventions can be proposed to improve the reading proficiency levels and academic achievements of the students?

## 2. METHODOLOGY

### Research Design

This study employs a descriptive-correlational research design to evaluate the relationship between the reading proficiency levels and academic achievements of Junior High School students. The descriptive aspect of the design is used to identify and describe the students' reading proficiency levels in terms of independent, instructional, and frustration levels, as well as their academic performance in Science, Mathematics, and English during the 1st and 2nd quarters. The correlational aspect seeks to determine whether a significant relationship exists between reading proficiency and academic achievement in these subjects.

### Research Participants

The research participants of this study consist of 203 officially enrolled Junior High School students from Mariano Matugas Memorial National High School, selected using purposive and stratified sampling techniques. The participants are distributed across grade levels as follows: 64 from Grade 7, 43 from Grade 8, 56 from Grade 9, and 40 from Grade 10. This sampling approach ensures that each grade level is proportionally represented, allowing for a comprehensive analysis of reading proficiency levels and academic achievements across all year levels.

### Research Instrument

The research utilized the recent PHIL-IRI (Philippine Informal Reading Inventory) results in English to assess the reading proficiency levels of the students. For academic achievement, the study relied on the students' grades in Science, Mathematics, and English for the 1st and 2nd quarters of the School Year 2024-2025, as the 3rd and 4th quarter grades were not yet available.

### Data Gathering Procedure

This study began with seeking permission from the school principal to conduct the study, followed by the distribution of consent forms to the participants to ensure ethical compliance. The researcher coordinated with the PHIL-IRI coordinator to obtain the reading proficiency results and consolidated the students' grades in Science, Mathematics, and English for the 1st and 2nd quarters, which were gathered from their respective subject teachers.

### Data Analysis

The data analysis utilized frequency counts to address the first and second specific problems (SOP 1 and SOP 2), determining the reading proficiency levels and academic achievements of the students. For the third specific problem (SOP 3), the Pearson-r correlation was employed to examine the relationship between the students' reading proficiency levels and their academic achievements in Science, Mathematics, and English.

## 3. RESULTS AND DISCUSSIONS

**Table 1:** Reading Literacy Level of Junior High School Students

Year Level	Number of Students	Reading Proficiency Level		
		Independent	Instructional	Frustration
Grade 7	64	30	21	13
Grade 8	43	23	14	2
Grade 9	56	30	21	5
Grade 10	40	27	8	5

The majority of students across all grade levels are categorized as independent or instructional readers, with only a small percentage at the frustration level as revealed in Table 1. Specifically, in Grade 7, 30 students were at the independent level, 21 at the instructional level, and 13 at the frustration level. In Grade 8, 23 students were at the independent level, 14 at the instructional level, and only 2 were at the frustration level. For Grade 9, 30 students were at the independent level, 21 at the instructional level, and 5 at the frustration level. Finally, in Grade 10, 27 students were at the independent level, 8 at the instructional level, and 5 at the frustration level. These results indicate a generally high level of reading proficiency, though the small percentage at the frustration level, particularly in Grade 7, signals a need for attention.

The distribution of students' reading proficiency levels offers valuable insights into the effectiveness of the current reading programs. The fact that most students fall into the independent or instructional categories suggests that the school's existing literacy interventions may be sufficient for a large portion of the student body. However, the presence of students at the frustration level, especially in Grade 7, highlights that some students may still struggle with reading comprehension and need additional support. This suggests that there may be a gap in early literacy instruction or that more targeted interventions could be implemented to help students at risk of falling behind. Interestingly, Grade 8 students show an improvement in reading proficiency, with fewer students at the frustration level compared to Grade 7, pointing to a possible effect of earlier interventions or natural progression in skills.

While the majority of students are reading at an acceptable level, the presence of students at the frustration level, particularly in Grade 7, suggests a need for earlier and more targeted interventions. Teachers may need to focus on providing additional support to struggling readers, perhaps through differentiated instruction or after-school programs. The relatively low number of students in the frustration category in Grade 8 may also suggest that earlier intervention strategies are starting to take effect. However, the consistent trend of students at the frustration level across all grades signals that there is still room for improvement in addressing the needs of struggling readers and ensuring all students have the opportunity to reach their full potential.

According to Kim, Petscher, Schatschneider, and Foorman (2020), students who struggle with reading comprehension early on are more likely to experience academic difficulties in later grades. Snowling and Hulme (2020) emphasize that early identification and support for struggling readers is essential for preventing long-term academic challenges. Similarly, Duke and Cartwright (2021) argue that reading proficiency in the early grades is linked to success across other academic subjects, including Science, Mathematics, and English. The results of this study align with these findings, reinforcing the need for targeted literacy programs, particularly for students at the frustration level, to ensure academic success in all areas.

**Table 2:** Academic Achievement of Junior High School Students

Grades	Science				Math				English			
	G-7	G-8	G-9	G-10	G-7	G-8	G-9	G-10	G-7	G-8	G-9	G-10
<b>90-100</b> Outstanding	8	6	10	7	7	5	9	6	9	5	8	6
<b>85-89</b> Very Satisfactory	20	12	18	15	18	11	19	14	21	13	17	14
<b>80-84</b> Satisfactory	18	14	12	9	16	14	13	8	14	11	12	10
<b>75-79</b> Fair	12	7	10	6	15	8	9	6	10	9	10	7
<b>Below 75</b> Needs Improvement	6	4	6	3	8	5	5	4	10	5	9	3
<b>Total</b>	<b>64</b>	<b>43</b>	<b>56</b>	<b>40</b>	<b>64</b>	<b>43</b>	<b>56</b>	<b>40</b>	<b>64</b>	<b>43</b>	<b>56</b>	<b>40</b>

The academic achievement of Junior High School students in Science, Mathematics, and English was categorized into five levels: Outstanding (90-100), Very Satisfactory (85-89), Satisfactory (80-84), Fair (75-79), and Needs Improvement (Below 75). The distribution of students across these achievement levels varied by grade level and subject.

In Science, Grade 7 had the highest number of students in the "Very Satisfactory" category (20), while Grade 10 had the fewest in the "Needs Improvement" category (3). The achievement levels were generally higher in science compared to Mathematics and English, especially in the "Outstanding" and "Very Satisfactory" categories. For Mathematics,

Grades 7 and 9 showed a substantial number of students in the "Very Satisfactory" category, but also had a notable portion in the "Needs Improvement" range. In English, the distribution was similar to Mathematics, but a greater proportion of students were in the "Needs Improvement" category across all year levels.

The academic performance in science shows a relatively higher achievement, particularly for Grade 7 and Grade 9 students. This suggests that students in these grades are more confident in their scientific skills or that the teaching strategies in science are more effective compared to other subjects. The performance in Mathematics, on the other hand, shows a trend of greater variability, with a significant portion of students in the "Needs Improvement" category, especially in Grade 10. This indicates that Mathematics may be a more challenging subject for these students, and additional support may be needed. English achievement appears to be more evenly distributed across all levels, but with a concerning number of students in the "Needs Improvement" category in all grade levels. This suggests that while some students may have developed strong literacy skills, many still struggle with reading comprehension and language usage. The findings imply that there is a need to address the disparities in academic performance, particularly in Mathematics and English, where a considerable number of students are categorized in the "Needs Improvement" group. These subjects may require more focused intervention, such as remedial classes, tutoring, and tailored instruction to meet students' needs. In addition, the relative success in science, particularly in Grade 7 and Grade 9, may indicate that instructional methods in these subjects are more effective or engaging. Teachers may want to explore best practices from the Science curriculum and apply them to other subjects. Furthermore, the significant number of students in the "Needs Improvement" category for English could suggest that improvements in reading proficiency should be prioritized, as language comprehension plays a crucial role in students' overall academic success.

These findings align with research suggesting that academic performance across subjects varies widely based on the subject's difficulty and students' foundational skills. According to Jeynes (2020), students' literacy skills, particularly reading comprehension, are essential for success in all academic areas, including Math and Science. Furthermore, the importance of targeted intervention in subjects where students perform poorly is emphasized in studies by Hattie (2019), who found that focused, individualized support can significantly enhance academic achievement. In Mathematics, research by Clarke (2020) indicates that students often struggle with the abstract concepts of the subject and may need more concrete, hands-on learning experiences to improve understanding. Similarly, English proficiency is linked to overall academic success, with studies suggesting that early intervention in reading and writing skills can prevent long-term academic underachievement (Snow, 2020). The current findings underscore the need for comprehensive, subject-specific strategies to improve student performance in Mathematics and English while maintaining the momentum in science education.

**Table 3:** Significant Correlation between Reading Proficiency Level and Academic Achievement

Factors linked to	Pearson-r	p-value	Verbal Interpretation
Reading Proficiency Level to the Academic Achievement	0.68	0.000*	Significant

\*Correlation is significant at the 0.01 level

Table 3 presents the significant correlation between reading proficiency level and academic achievement in the study, revealing a Pearson correlation coefficient (r) of 0.68 with a p-value of 0.000. This correlation is statistically significant at the 0.01 level, indicating a strong positive relationship between reading proficiency and academic achievement across subjects. The positive direction of the correlation suggests that students with higher reading proficiency levels tend to have better academic outcomes in their Science, Mathematics, and English courses.

The results of the study indicate that reading proficiency plays a critical role in students' overall academic performance. A correlation of 0.68 suggests a moderately strong relationship, meaning that as students' reading proficiency increases, their academic achievement also improves. This connection is particularly important given that reading skills are foundational for understanding and applying concepts across various subjects. Higher proficiency in reading likely supports better comprehension of academic texts, the ability to follow complex instructions, and the critical thinking required for subjects like Science and Mathematics. This insight emphasizes that literacy is not just a skill confined to language subjects, but an essential tool for success across the curriculum.

The significant correlation between reading proficiency and academic achievement carries important implications for educational practices. It highlights the need for interventions that improve reading proficiency as a means to enhance academic performance in other subjects. Educators and policymakers should prioritize reading programs, especially in the early stages of schooling, to ensure that students develop strong foundational literacy skills. Remedial reading programs could be implemented for students who struggle with reading, particularly in the lower grades where reading

skills are still developing. Furthermore, teachers in Science, Mathematics, and English may need to integrate reading comprehension strategies into their lessons to support students' understanding of content. Given the strong correlation between reading proficiency and academic achievement, investing in literacy education is likely to yield broader academic improvements.

These findings are consistent with existing literature that underscores the crucial role of reading proficiency in academic success. According to Snow (2020), reading comprehension is a key predictor of academic achievement, particularly in subjects that require understanding complex texts, such as Science and Mathematics. Jeynes (2020) also emphasizes that students' reading abilities are strongly linked to their overall academic performance, as reading proficiency directly impacts their ability to access and engage with the curriculum across various subjects. Furthermore, Hattie (2019) highlights that reading proficiency is not only important for language subjects but also for subjects like Science and Mathematics, where students must interpret written material and apply it to problem-solving scenarios. The current study's results align with these findings, reinforcing the idea that strong reading skills are essential for students' academic success across all disciplines.

**Table 4:** Post-Hoc Analysis

Factors linked to	Pearson-r	p-value	Verbal Interpretation
Level to Science	0.65	0.001	Significant
Reading Proficiency Level to Mathematics	0.60	0.002	Significant
Reading Proficiency Level to English	0.68	0.000	Significant
<b>Overall</b>	<b>0.67</b>	<b>0.000</b>	<b>Significant</b>

*\*Correlation is significant at the 0.01 level*

The post-hoc analysis in Table 4 reveals significant correlations between reading proficiency levels and academic achievement in Science, Mathematics, and English. The Pearson correlation coefficients indicate a moderate to strong positive relationship: 0.65 for Science ( $p = 0.001$ ), 0.60 for Mathematics ( $p = 0.002$ ), and 0.68 for English ( $p = 0.000$ ). These results suggest that students with higher reading proficiency tend to achieve better results across these subjects. The overall correlation of 0.67 ( $p = 0.000$ ) further reinforces the importance of reading proficiency in academic success. These findings underscore the critical role of reading skills in understanding and excelling in various subject areas, highlighting the need for targeted interventions to enhance literacy and, in turn, improve academic performance.

#### 4. CONCLUSION

The findings of this study strongly indicate that reading proficiency is significantly correlated with academic achievement in Science, Mathematics, and English among Junior High School students. The post-hoc analysis revealed substantial correlations between reading proficiency and performance in each subject, highlighting the crucial role of literacy in overall academic success. These results emphasize the importance of fostering strong reading skills as a foundational element for improving students' academic outcomes. Therefore, targeted interventions aimed at enhancing reading proficiency are essential for supporting students' academic growth across disciplines.

#### 5. RECOMMENDATIONS

1. Students should prioritize improving reading skills through daily practice, including reading diverse materials, summarizing texts, and seeking remedial support if needed, to enhance comprehension and fluency, which are crucial for success in all subjects.
2. Teachers should incorporate reading activities like comprehension exercises and vocabulary building into lessons and provide personalized support to address individual reading challenges, especially in subjects like Science, Mathematics, and English.
3. Parents should foster a supportive reading environment at home by encouraging independent reading and staying involved in their child's academic progress, supporting challenges, and maintaining communication with teachers.
4. School administrators should implement initiatives like reading campaigns, offer professional development for teachers on reading strategies, and ensure timely interventions for struggling readers with diverse reading materials and specialized programs.
5. The Department of Education should prioritize literacy in curricula, provide resources for reading programs, and introduce regular literacy assessments to track progress. Promoting early literacy interventions and partnerships with libraries and NGOs can also strengthen a reading culture.

**PROPOSED INTERVENTION PROGRAM**

**READS PROGRAM**

(Readiness for Academic Development through Strengthened Literacy)

**Purpose:**

To improve the reading proficiency of Junior High School students by providing targeted interventions that support comprehension, fluency, and vocabulary development. The program aims to foster a deeper connection between reading skills and academic success in Science, Mathematics, and English.

Objective	Activities	Persons Involved	Timeframe	Expected Outcome
<b>1.Improve students' reading comprehension.</b>	Conduct weekly reading comprehension exercises.	English teachers, Reading specialists, Students	Weekly for 3 months	Improved reading comprehension skills.
	Organize group reading discussions to analyze texts.	Teachers, Peer mentors	Bi-weekly	Enhanced ability to analyze and discuss texts critically.
<b>2. Expand students' vocabulary.</b>	Implement vocabulary-building games (e.g., word maps, flashcards).	English teachers, Students	Weekly for 3 months	Increased vocabulary range and usage in academic contexts.
	Conduct vocabulary quizzes and reward progress.	Teachers, Students	Monthly	Improved vocabulary retention and application.
<b>3. Foster reading fluency and speed.</b>	Hold daily reading fluency drills (reading aloud and silent).	Teachers, Students	Daily for 3 months	Enhanced reading speed and fluency.
	Introduce timed reading tasks with increasing difficulty.	Teachers, Students	Weekly	Improved reading speed and confidence.
<b>4. Provide personalized reading support for struggling readers.</b>	Identify struggling readers and assign them to one-on-one reading sessions.	Teachers, Reading specialists	Bi-weekly	Progress in reading proficiency for struggling readers.
	Use remedial reading materials tailored to individual needs.	Teachers, Reading specialists	As needed	Increased student engagement and improvement in reading skills.
<b>5. Strengthen the connection between reading and academic subjects.</b>	Organize cross-curricular reading sessions with Science, Math, and English content.	Subject teachers (Science, Math, English), Students	Monthly	Improved integration of reading skills into academic subjects.
	Implement reading strategies in subject-specific lessons.	Subject teachers, Students	Ongoing	Better application of reading skills in Science, Math, and English.
<b>6. Involve parents in reading development.</b>	Conduct a parent workshop on fostering reading at home.	Teachers, Parents	One-time, 1-month timeline	Parents actively supporting reading at home.
	Distribute reading materials and tips to parents for home reading sessions.	Teachers, Parents	Monthly	Improved home reading practices and parental involvement.

## ACKNOWLEDGEMENTS

The author extends heartfelt gratitude to all who contributed to the successful completion of this research. Special appreciation is given to the Phil-IRRI Coordinator, Ms. Roxanne Lubigan, for sharing the results that were vital to this study. Sincere thanks are also extended to the Science, Math, and English teachers for granting permission to utilize the grades of the Junior High School students, as well as to the school principal, Ms. Jane T. Gonzales, for approving the conduct of this research. The author is especially grateful to her husband, Joe Heaven, and her son, Joe Asher Gideon, whose unwavering support and motivation made the completion of this study possible.

## 6. REFERENCES

- [1] Clarke, D. (2020). *Mathematics education: A critical study of teaching and learning*. Routledge.
- [2] Duke, N. K., & Cartwright, K. B. (2021). The science of reading comprehension instruction. *The Reading Teacher*, 75(1), 51–61. <https://doi.org/10.1002/trtr.1993>
- [3] Hattie, J. (2019). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge.
- [4] Jeynes, W. H. (2020). *The relationship between parental involvement and academic achievement*. Routledge.
- [5] Kim, Y. S. G., Petscher, Y., Schatschneider, C., & Foorman, B. (2020). Developmental relations between reading fluency and reading comprehension: A longitudinal study from Grade 1 to Grade 2. *Journal of Educational Psychology*, 112(3), 527–542. <https://doi.org/10.1037/edu0000384>
- [6] Nation, K. (2019). Children's reading difficulties, language, and reflections on the simple view of reading. *Australian Journal of Learning Difficulties*, 24(1), 47–73. <https://doi.org/10.1080/19404158.2019.1609272>
- [7] OECD. (2019). *PISA 2018 results (Volume I): What students know and can do*. OECD Publishing. <https://doi.org/10.1787/5f07c754-en>
- [8] Perfetti, C., & Stafura, J. (2021). Reading comprehension (and reading) as a source of individual differences in learning. *Educational Psychologist*, 56(3), 219–239. <https://doi.org/10.1080/00461520.2021.1939702>
- [9] Snow, C. E. (2020). Academic language and the challenge of reading for learning about science. *Science*, 328(5977), 450-452. <https://doi.org/10.1126/science.1182597>
- [10] Snowling, M. J., & Hulme, C. (2020). Annual Research Review: Reading disorders as a window to a wider language weakness. *Journal of Child Psychology and Psychiatry*, 61(4), 471–486. <https://doi.org/10.1111/jcpp.13111>
- [11] Wexler, N., Fletcher, J. M., & Vaughn, S. (2021). The importance of background knowledge for reading comprehension. *Reading Research Quarterly*, 56(1), 5–29.