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Understanding the Link between Literacy and Numeracy Skills among Primary Pupils

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Abstract. This study examined the relationship between literacy and numeracy skills among Grade 3 learners. A total of 340 learners from 21 schools in the Valencia District were selected using a systematic sampling method. Informed consent was obtained from all participants, and strict measures were implemented to ensure data confidentiality. The study employed a descriptive-correlational design and utilized standardized EGRA and EGMA testing tools. Percentages, means, and the Chi-Square Test were used for statistical analysis. Findings revealed that approximately 20% of the learners were non-readers, while 30% were non-numerate. The study also established a significant relationship between learners' foundational literacy and their numeracy skills. Data on foundational literacy showed that female learners, those excelling in English and Math, learners from higher-income families, and those with educated parents achieved higher scores. For numeracy skills, only English and Math performance were significantly linked to learners' math abilities. These findings underscore the importance of targeted educational planning and interventions that support disadvantaged groups and enhance core subject skills to improve overall literacy and numeracy outcomes.

Keywords: English performance; Foundational literacy; Learner profile; Math performance; Primary numeracy skills; Socioeconomic factors.

1.0 Introduction

Over the past 20 years, the Programme for International Student Assessment (PISA) has evaluated education systems worldwide (Zheng et al., 2024; Deta et al., 2024). However, recent results reveal a pressing global challenge: many countries are struggling with literacy and numeracy. In 2022, Kazakhstan ranked 61st out of 81 countries, showing notable declines in English, science, and math, which signals an urgent need for educational reform to strengthen reading skills (Zhanabil & Tazhenova, 2024). Similarly, Indonesia ranked 62nd out of 70 countries, facing similar difficulties (Tañiza et al., 2024). These findings highlight the critical need for policymakers and educators to prioritize improvements in foundational literacy and numeracy, as these skills are essential for learners' academic and future success (Abella et al., 2024).

Reflecting these global challenges, the Philippines' performance in the Organization for Economic Co-operation and Development (OECD) PISA assessments in 2018 and 2022 consistently ranked among the lowest globally, with the country placing third-lowest in science and sixth-lowest in math and reading (OECD, 2023; PISA, 2022; Acido & Caballes, 2024). A significant factor contributing to these low scores is learners' struggles with reading proficiency, which directly affects their numeracy and overall academic performance (Idulog et al., 2023). For

instance, Pulumbarit et al. (2023) reported a sharp decline in reading and numeracy skills among fifth graders, while Maquiling (2023) observed similar challenges across all grade levels, revealing the necessity for immediate action. In response, the Department of Education (DepEd) launched the National Learning Camp (NLC). A local initiative that supports this effort is the PS-ELANS (Problem-Solving to Enrich Literacy and Numeracy Skills) program in the Division of Negros Oriental. Launched in 2023 through DepEd Order No. 14, s. 2023, PS-ELANS aims to improve students' reading, writing, and math skills by using problem-solving activities to make learning more practical and engaging (Maguate et al., 2024).

Numerous studies have examined the relationship between foundational literacy and numeracy skills, especially in the context of educational challenges surrounding the COVID-19 pandemic (Samia, 2024). International research has addressed various dimensions of this connection, including gender differences in reading and numeracy (Thomas et al., 2024), the association between math abilities and self-confidence among children with special needs (Waluya & Sukestiyarno, 2023), and the role of reading skills in supporting mathematical understanding (Prabowo et al., 2023). In the Philippines, Santiago and Mustaciasa (2024) investigated the effectiveness of literacy and numeracy programs on learner achievement, while Casupanan and Fastidio (2024) assessed foundational literacy among Grade 2 learners using the enhanced Marungko Approach. Although previous studies offer valuable insights, there remains a lack of research focusing specifically on the post-pandemic relationship between literacy and numeracy skills at the Grade 3 level. Addressing this gap, the present study examines the impact of foundational literacy on numeracy skills among Grade 3 learners during the 2023–2024 school year, with particular attention to their demographic profiles.

Aligned with the Department of Education's vision of a learner-centered institution, this study also contributes to Sustainable Development Goal No. 4 (SDG 4), which promotes inclusive and equitable quality education. Specifically, it addresses Target 4.1.1, which measures the proportion of learners attaining minimum proficiency in reading and mathematics at key primary levels. Despite continuous efforts to improve foundational literacy and numeracy skills, persistent learning gaps remain among early-grade learners. This study aims to investigate the impact of foundational literacy on primary numeracy skills. By providing empirical evidence, it aims to support the implementation of evidence-based approaches that enhance pupil learning outcomes in these essential areas.

2.0 Methodology

2.1 Research Design

This research employed a descriptive-correlational survey type, which aims to explore relationships between variables and describe patterns or trends within the data. It was descriptive since it presented and explained the foundational literacy level and primary numeracy skills of the learners. It was correlational since the study determined the relationship between (a) the foundational literacy level and the primary numeracy skills of the learners; (b) the profile of the learners and their foundational literacy level; and (c) the profile of the learners and their primary numeracy skills.

2.2 Research Participants

The respondents of this study are the Grade 3 learners from 21 schools in the Valencia District, Schools Division of Negros Oriental, for the School Year 2023–2024. Out of the total population of 787 learners in these schools, 340 were selected as the sample. The sample size was calculated using Yamane's formula (Yamane, 1967), which is a widely used method for determining sample sizes in statistical surveys. However, schools with a population of fewer than 15 were all included. The respondents were proportionately chosen using a systematic sampling technique, in which every third learner on the list was selected randomly. The margin of error was set at 5%.

2.3 Research Instrument

This study employed a standardized questionnaire comprising four parts. Part I included the disclosure statement, while Part II collected information on the learners' profiles. Part III employed the DepEd-standardized EGRA assessment tool, which measured reading skills through subtasks such as listening comprehension, letter-sound identification, phonemic awareness, familiar and non-word reading, and oral reading fluency. Part IV applied the DepEd-standardized EGMA assessment tool to assess numeracy skills through various components, including oral and rational counting, number identification, number discrimination, missing numbers, addition, subtraction, word problems, geometric pattern completion, and

geometric visualization (Department Order 57, s. 2015). The tools had been pre-validated and widely used.

2.4 Data Gathering Procedure

Any revisions and recommendations provided by the panel members were incorporated into the study. Once endorsed by the Dean of the Foundation University Graduate School, a formal request for permission to conduct the survey was submitted to the Schools Division Superintendent of SDO Negros Oriental. After receiving approval, the request was relayed to the School Principals and learners' advisers through the Public Schools District Supervisor. The advisers supervised the collection of survey responses, while the researchers maintained direct communication with each adviser to ensure efficient data gathering.

2.5 Data Analysis Procedure

The researchers used the frequency distribution technique to analyze the data. It is by displaying how often each value or range of values appeared in a dataset that a frequency distribution is a technique for organizing and summarizing data. Percent was used to indicate the relationship between a part and a whole. It was applied in presenting the foundational reading literacy level and primary numeracy skills of the learners. In addition, chi-square was used to identify the relationship between (a) the foundational reading literacy level and primary numeracy and mathematics skills of the learners and (b) the profile of the learners and their foundational reading literacy level and primary numeracy skills. This test was applicable since one of the variables was measured on a nominal scale.

2.6 Ethical Considerations

The researchers strictly followed all essential ethical guidelines during the study to ensure that the collected data remained confidential. The researchers securely retained all completed questionnaires. Additionally, the health and safety of both the researchers and the learners were carefully considered and protected. Furthermore, the researchers complied with the ethical standards established by the Ethics Committee of Foundation University. This included obtaining consent from the Schools Division office, district, school heads, teachers, and parents before beginning the study, while also ensuring that the respondents' health and well-being were safeguarded. Participation was voluntary, and no learner was forced to answer.

3.0 Results and Discussion

3.1 Foundational Literacy Level of Learners based on EGRA

The data revealed that, in general, 282 learners (82.94%) are readers, while 58 learners (17.06%) are non-readers. The highest number of learners, 322 (94.71%), demonstrate the ability to identify letter sounds, whereas the lowest number, 242 (71.18%), possess skills in non-word reading. Table 1 presents the foundational literacy level of 340 learners, as measured by EGRA, highlighting a notable gap between readers and non-readers across various literacy skills. Learners perform exceptionally well in letter sound identification, with 322 (94.71%) classified as readers. Similarly, they excel in listening comprehension, where 300 (88.24%) are categorized as readers.

Table 1. *Foundational Literacy Level of Learners based on EGRA (n = 340)*

Areas	Reader		Non-Reader	
	f	%	f	%
Listening Comprehension	300	88.24	40	11.76
Letter Sound Identification	322	94.71	18	5.29
Phonemic Awareness	284	83.53	56	16.47
Familiar Word Reading	251	73.82	89	26.18
Non-Word Reading	242	71.18	98	28.82
Oral Reading	287	84.41	53	15.59
Overall	282	82.94	58	17.06

These findings suggest that most learners can recognize letter-sound correspondence, a crucial early literacy skill. In addition, they demonstrate strong listening comprehension skills, enabling them to understand spoken language, process information, and derive meaning from oral texts. This result aligns with the findings of Piasta et al. (2022), who reported that both high- and low-alphabet-knowledge learners can show improvement in literacy skills. Since listening is a fundamental skill in both communication and education (Hammad Al-Khresheh, 2020), learners need to learn and interact effectively (Hardiyanto et al., 2021). However, Tran et al. (2020) contradict this, as learners struggle with understanding pronunciation, vocabulary, meaning, and

sentence structure. In addition, Nkomo and Carrim (2024) argue that many early-grade learners struggle with letter sounds, which significantly hinders their reading development. Table 1 further reveals that 287 learners (84.41%) are classified as readers in Oral Reading, while 284 learners (83.53%) are considered readers in Phonemic Awareness. This indicates that most learners can accurately decode and fluently read words, which is essential for comprehension and overall literacy development. In addition, the high percentage suggests that the majority of learners can identify, manipulate, and distinguish sounds within words, a foundational skill for decoding and spelling.

Gioia et al. (2024) emphasize that these are crucial literacy skills, especially for learners entering Grade 1 with limited knowledge of letter sounds (Nkomo & Carrim, 2024), which makes it difficult for them to develop early reading skills. Yadav (2023) emphasizes that the absence of this fundamental skill renders future education ineffective, while Rice et al. (2024) observe that non-readers often struggle in these areas and require additional support. Furthermore, continued efforts are needed to develop their reading abilities further (Rosnelli & Ristiana, 2023).

Table 1 also exhibits a lower number of readers in familiar word reading (251 or 73.82%) and non-word reading (242 or 71.18%). These findings illustrate that while most learners can recognize commonly encountered words, a significant portion (26.18%) still struggles with automatic word recognition. Additionally, the lower percentage in Non-Word Reading suggests that some learners may struggle with phonetic decoding, a crucial skill for reading unfamiliar words. These findings align with Tomas et al. (2021), who found that learners often experience difficulties with phonics and sight word recognition. Similarly, Irkinovich and Izatullaevna (2022), reported that learners who read only occasionally tend to struggle with understanding word formation, leading to further reading difficulties.

A synthesis of the results in Table 1 reflects that 282 learners (82.94%) are classified as readers, while 58 learners (17.06%) are non-readers. Although the majority of learners demonstrate reading proficiency, the 17.06% who struggle with reading cannot be overlooked. Ensuring that all learners acquire foundational literacy skills is critical for their academic success. Every learner deserves a quality education, and effective programs should be in place to support them and prevent them from falling behind.

3.2 Primary Numeracy Skills of the Learners based on EGMA

The data revealed that, overall, 240 learners (70.59%) are numerate, while 100 learners (29.41%) are non-numerate. The highest number of learners, 274 (80.59%), demonstrate proficiency in rational counting, whereas the lowest number, 204 (60.00%), exhibit skills in subtraction-level 2. Table 2 depicts the primary numeracy skills of learners based on the EGMA. Overall, 240 learners (70.59%) are classified as numerate, while 100 learners (29.41%) are considered non-numerate. The data reveal that the majority of learners demonstrate strong numeracy skills, particularly in Rational Counting (274 or 80.59%) and Geometric Visualization (271 or 79.71%), indicating well-developed number sense and spatial reasoning. According to Cruz et al. (2024), these skills are generally easier for learners to acquire and play a crucial role in building mathematical confidence.

Table 2. *Primary Numeracy Skills of the Learners based on EGMA (n = 340)*

Areas	Numerates		Non-Numerates	
	f	%	f	%
Oral Counting	265	77.94	75	22.06
Rational Counting	274	80.59	66	19.41
Number Identification	257	75.59	83	24.41
Number Discrimination	265	77.94	75	22.06
Missing Number	228	67.06	112	32.94
Addition-Level 1	215	63.24	125	36.76
Addition-Level 2	217	63.82	123	36.18
Subtraction-Level 1	220	64.71	120	35.29
Subtraction-Level 2	204	60.00	136	40.00
Word Problems	236	69.41	104	30.59
Geometric Pattern	258	75.88	82	24.12
Geometric Visualization	271	79.71	69	20.29
Overall	240	70.59	100	29.41

Additionally, most learners demonstrate proficiency in Oral Counting (265, or 77.94%) and Number Discrimination (265, or 77.94%). This aligns with findings by Birgin et al. (2022), who identified these skills as key predictors of mathematical success. These foundational abilities contribute to numerical fluency, enhancing learners' efficiency in mathematical tasks (Shumway, 2023) and equipping them for real-world challenges beyond mathematics (Pramasdyahsari et al., 2025). On the other hand, fewer learners demonstrate numeracy in Missing Number (228 or 67.06%), Addition-Level 1 (215 or 63.24%), Addition-Level 2 (217 or 63.82%), Subtraction-Level 1 (220 or 64.71%), and Subtraction-Level 2 (204 or 60.00%). This suggests that many learners struggle with arithmetic operations and number sequencing. Supporting this observation, Leuenberger et al. (2024) note that difficulties in these fundamental areas often hinder learners' ability to grasp higher-level mathematical concepts.

Moreover, non-numerate learners face significant challenges in basic math skills. The most common difficulties include finding missing numbers, performing simple addition and subtraction (Levels 1 and 2), and solving word problems. Many learners struggle with these skills, with 104 to 136 learners affected—about 30% to 40% of the group—indicating possible gaps in their basic math understanding. These tests assess essential numeracy skills, such as counting aloud, identifying missing numbers, and distinguishing between numbers. Developing these foundational skills is crucial for improving overall math proficiency.

Furthermore, mastering primary numeracy plays a vital role in learners' academic performance. Shumway (2023) emphasized that learners with a strong understanding of number sense are more efficient in solving math problems. Similarly, Leuenberger et al. (2024) found that many first graders who struggle with math often have difficulty mastering simple addition and subtraction. Finally, the low performance in word problems (104 or 30.59%) indicates challenges in mathematical reasoning. Chand et al. (2021) attribute this difficulty to a negative attitude toward mathematics, which can further impact learners' confidence and ability to engage with problem-solving tasks.

3.3 Relationship between the Foundational Literacy and Numeracy Level

The data indicated a significant relationship between the foundational literacy of learners and their primary numeracy and mathematics skills ($p < .001$). Table 3 reveals the data in identifying the relationship between the foundational literacy of the Grade 3 learners and their primary numeracy and Math skills. Using the Chi-square test, it is shown that the p-value (< .001) is less than the level of significance (0.05). This finding warrants the rejection of the null hypothesis. This means that there is an association between learners' foundational literacy and primary numeracy and Math skills. This signifies that these competencies are interdependent and mutually reinforcing. Whitehead et al. (2024) support this, stating that literacy and numeracy are closely connected. Similarly, Gesuelli et al. (2025) found that learners with strong reading skills also perform better in math. Strong literacy skills can enhance a learner's ability to understand and solve word problems, follow instructions, and comprehend mathematical concepts. In contrast, numeracy skills can support logical thinking and the ability to interpret and analyze written information, such as data in charts or graphs.

Table 3. *Relationship between the Foundational Literacy of the Grade Three Learners and Their Primary Numeracy Level (n = 340)*

Variables	x^2	p	Decision	Remark
Foundational Literacy and Primary Numeracy and Math	152	<.001	Reject H_{o1}	Significant

Chi-Square Test at 0.05 Level of Significance and 1 degree of Freedom

According to Indrawatiningsih et al. (2024), literacy and numeracy are essential skills that help learners become effective problem solvers. The findings of this study align with Shamir et al. (2024), who reported a strong correlation between math performance and reading skills. Similarly, Prabowo et al. (2023) found that learners with strong reading skills perform better in mathematics. Similarly, Pratiwi et al. (2024) emphasized that literacy plays a crucial role in numeracy, significantly contributing to learners' math skills, a conclusion also supported by Pawartani et al. (2025). These researchers recommend that schools and educators systematically integrate reading literacy into math instruction to improve learning outcomes. Furthermore, Jannah et al. (2025) highlighted the importance of literacy and problem-solving abilities in tackling math word problems, a perspective echoed by Iswara et al. (2022), who identified literacy skills as fundamental to developing problem-solving competencies. In contrast, Dassa et al. (2023) emphasized that learners with low foundational literacy skills struggled to understand primary numeracy problems, further reinforcing the strong connection between

these two skill areas.

3.4 Relationship between the Profile of the Grade Three Learners and Their Foundational Literacy Level

The data revealed that (a) female learners outperformed their male counterparts, (b) learners with better performance in English and Math tend to have higher mean literacy scores, (c) learners from higher-income families achieve better mean literacy scores, and (d) learners with educated parents tend to acquire higher mean literacy scores. Table 4 on the next page presents data on the relationship between learners' profiles and their foundational literacy skills. The results indicate that all p-values are less than the significance level (0.05), warranting the rejection of the null hypothesis. This means that sex ($p = 0.003$), English performance ($p < .001$), Math performance ($p < .001$), income ($p = 0.041$), mothers' educational attainment ($p < .001$), and fathers' educational attainment ($p < .001$) are significantly related to learners' foundational literacy skills. The mean literacy scores reveal that (a) female learners outperform their male counterparts, (b) learners with better English and Math performance tend to have higher literacy scores, (c) learners from higher-income families achieve better literacy scores, and (d) learners with educated parents tend to acquire stronger literacy skills.

Table 4. *Relationship between the Profile of the Grade Three Learners and Their Foundational Literacy Level (n = 340)*

Variables Correlated to Learners' Foundational Literacy Level	x^2	df	p	Decision	Remark
Sex	8.84	1	.003	Reject H_{o2}	Significant
English performance	103	4	<.001	Reject H_{o2}	Significant
Math performance	96.4	4	<.001	Reject H_{o2}	Significant
Income	8.27	3	.041	Reject H_{o2}	Significant
Educ. Attainment of Mothers	24.6	3	<.001	Reject H_{o2}	Significant
Educ. Attainment of Fathers	17.1	3	<.001	Reject H_{o2}	Significant

Chi-Square Test at 0.05 Level of Significance

Findings indicate that female learners consistently outperform their male counterparts in reading. In recent years, girls have generally performed better in academic contests such as story retelling and oral reading in English. This may be because girls often enjoy bonding in the library through reading storybooks, whereas boys tend to prefer physical activities. As a result, girls achieve more in reading than boys (Manu et al., 2023). This conclusion aligns with Thomas et al. (2024), who found that since kindergarten, girls have consistently excelled in pre-reading and reading skills. Similarly, Jabbar et al. (2023) observed that girls engage in reading more frequently than boys, and Keller et al. (2022) found that female learners tend to have stronger reading skills, while male learners demonstrate greater proficiency in mathematics.

The gender gap is most pronounced in speaking performance, with female learners demonstrating higher language proficiency (Alkhawaldeh & Khasawneh, 2023). Research by Ludewig et al. (2022) and Santocildes and Guanzon (2024) further supports this trend, showing that female learners consistently achieve higher reading scores. The study also reveals that learners who excel in English and math tend to achieve higher literacy scores. Yang and Wang (2022) found that learners with strong vocabulary and reading skills are more likely to perform well in English. Similarly, Aksan (2021) and Birgin et al. (2022) noted that high-achieving math learners also demonstrate strong literacy performance.

Furthermore, the findings suggest that higher family income and parental education have a significant contribution to better literacy outcomes. Parents with higher incomes can afford to buy reading materials such as storybooks, magazines, and newspapers for their children. They also have the financial capacity to hire tutors to assist their children with homework assigned by teachers. Additionally, educated parents are more capable of teaching their children how to read at home after work, compared to uneducated parents who may have difficulty reading themselves. Susetyo (2024) reported that higher parental income correlates with stronger language skills in children. Similarly, Holmquist et al. (2024) found that 75% of children from high-income families developed strong literacy skills, whereas children from low-income backgrounds were at a higher risk of reading difficulties. Shero et al. (2024) and Villegas (2024) also emphasized the substantial influence of socioeconomic status on reading proficiency.

3.5 Relationship between the Profile of the Grade Three Learners and Their Primary Numeracy Skills

The results indicate that only the English performance ($p < .001$) and Math performance ($p < .001$) of the learners are significantly related to their primary numeracy skills. Meanwhile, learners' sex ($p = 0.092$), family income ($p = 0.947$), and the educational attainment of both mothers ($p = 0.141$) and fathers ($p = 0.282$) are not significantly

related to their primary numeracy and math skills. Table 5 examines the relationship between learners' profiles and their primary numeracy and math skills. The results indicate that only English performance ($p < .001$) and Math performance ($p < .001$) are significantly related to primary numeracy and math skills, suggesting that learners who excel in English and Math tend to develop stronger numeracy skills.

Table 5. *Relationship between the Profile of the Grade Three Learners and Their Primary Numeracy Skills (n = 340)*

Variables Correlated to Learners' Primary Numeracy and Mathematics Level	x^2	df	p	Decision	Remark
Sex	2.83	1	.092	Fail to reject H_{o3}	Not significant
English performance	82.00	4	<.001	Reject H_{o3}	Significant
Math. performance	88.70	4	<.001	Reject H_{o3}	Significant
Income	0.369	3	.947	Fail to reject H_{o3}	Not significant
Educ. Attainment of Mothers	5.46	3	.141	Fail to reject H_{o3}	Not significant
Educ. Attainment of Fathers	3.81	3	.282	Fail to reject H_{o3}	Not significant

Chi-Square Test at 0.05 Level of Significance

These findings align with Gesuelli et al. (2025), who found that learners with higher reading achievement and stronger math skills tend to perform better in mathematics. Similarly, Birgin et al. (2022) reported a moderate positive relationship between overall academic performance and mathematics achievement. Liu et al. (2025) further emphasized that early numeracy is a strong predictor of later mathematical success, reinforcing the importance of foundational numeracy skills in long-term academic achievement. Shone et al. (2024) highlighted that learners' perceptions of mathematics have a significant influence on their performance. This is further supported by Aksan (2021), who found that learners with strong foundational skills and positive attitudes achieved higher levels of success in mathematics. Birgin et al. (2022) also noted that second-grade learners performed best in counting skills, emphasizing the role of early numeracy development in shaping mathematical competence.

On the other hand, the study found that learners' sex ($p = 0.092$), family income ($p = 0.947$), and the educational attainment of both mothers ($p = 0.141$) and fathers ($p = 0.282$) are not significantly related to primary numeracy and mathematics skills. This suggests that demographic and socioeconomic factors do not strongly influence learners' ability to acquire basic mathematical competencies. These results contradict the findings of Shone et al. (2024) and Tseer et al. (2025), who reported that sex influences mathematics performance, with male learners achieving higher scores than females. Similarly, Hidayatullah et al. (2024) found that male learners tend to exhibit greater confidence in their mathematical abilities than their female counterparts. However, Egara and Mosimege (2024) challenged this claim by demonstrating that in a blended learning environment, female learners outperformed male learners, suggesting that gender differences in mathematics achievement may be influenced more by instructional methods than by inherent ability. In contrast, the findings of this study align with Mabena et al. (2021), who argued that learners' difficulties in mathematics are primarily attributed to internal factors such as ill-discipline, language barriers, and negative attitudes, rather than demographic or socioeconomic influences. This supports the idea that internal and behavioral factors may have a greater impact on mathematics performance than external demographic characteristics.

4.0 Conclusion

This study highlights the strong connection between reading and basic math skills in Grade 3 learners, demonstrating that good literacy is essential for building math abilities. It shows that learners who excel in reading are more likely to perform well in math, suggesting the importance of fostering literacy to improve numeracy. However, some learners still struggle with reading unfamiliar words and solving complex subtraction problems, which can hinder their overall academic progress. Factors such as gender, academic performance, family income, and parents' education influence reading skills, indicating the need for schools and policymakers to provide equal learning opportunities and encourage parental involvement. The study also finds that strong math skills are closely tied to performance in English and Math, emphasizing the importance of quality teaching in these subjects. This research contributes to existing knowledge by confirming the significant link between literacy and numeracy, reinforcing previous findings that reading skills play a crucial role in enhancing math performance. It suggests that strengthening reading abilities can have a positive impact on students' mathematical capabilities. Future research should focus on evaluating the effectiveness of specific interventions that aim to improve both reading and math skills. In particular, studies could explore how socio-economic factors and teaching strategies impact the development of these foundational skills, offering valuable

insights for educators and policymakers.

5.0 Contributions of Authors

Dr. Agripina S. Jabanes contributed to the writing and gathering of data, while Dr. Maria Chona Z. Futalan was responsible for editing and data analysis.

6.0 Funding

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7.0 Conflict of Interests

No conflict of interest.

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