

Numeracy Skills and Mathematical Performance of Grade Five Pupils in Public Elementary Schools

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Abstract

This study assessed the numeracy skills in content areas and mathematical performance of Grade Five pupils in public elementary schools in Pililla District, Schools Division Office of Rizal, during School Year 2025–2026. Specifically, it determined the pupils' level of numeracy skills in Number and Algebra, Measurement and Geometry, and Data and Probability; examined differences in numeracy skills when grouped according to selected demographic variables; determined their level of mathematical performance; and established the relationship between numeracy skills and mathematical performance. The study employed a descriptive survey research design and documentary analysis. From a population of 1,390 Grade Five pupils, 390 respondents were selected using Slovin's formula and simple random sampling. A researcher-made questionnaire checklist was used to assess numeracy skills, while pupils' final grades in Mathematics were obtained through documentary analysis. Findings revealed that the respondents were generally highly skilled in Number and Algebra, Measurement and Geometry, and Data and Probability and demonstrated satisfactory mathematical performance. No significant differences were found in numeracy skills according to sex, sibling position, and number of children in the family. However, significant differences were observed when pupils were grouped according to monthly family income, parents' educational attainment, and parents' occupation. Furthermore, a significant relationship was established between pupils' numeracy skills and mathematical performance, indicating that stronger numeracy skills were associated with better achievement in Mathematics. The study recommends strengthening professional development and classroom interventions, particularly in Data and Probability, through hands-on, inquiry-based, and real-world learning activities. Teachers may also utilize self-assessment tools to identify pupils needing additional support. The proposed action plan is recommended for implementation, while similar studies may be conducted using other variables and contexts.

Keywords: Numeracy Skills, Mathematical Performance, Grade Five Pupils, Number and Algebra, Measurement and Geometry, Data and Probability, Elementary Education

1. Introduction

Numeracy is a fundamental component of mathematical learning because it enables learners to understand numbers, recognize relationships, interpret quantitative information, solve problems, and apply mathematical concepts in real-life situations. At the elementary level, numeracy serves as a foundation for subsequent mathematical learning and academic achievement. The importance of strengthening these competencies has become increasingly evident in the Philippine educational context, particularly amid continuing efforts to address learning gaps in mathematics. Recent evidence on Filipino learners has shown persistent concerns regarding

foundational mathematics skills, emphasizing the need for sustained interventions that develop learners' ability to apply mathematical knowledge rather than merely recall procedures (David et al., 2023). These concerns make the assessment of pupils' numeracy skills particularly relevant in determining areas of strength and those requiring instructional support.

Recent Philippine studies have demonstrated a connection between numeracy skills and mathematics performance. Pitogo and Oco (2023), in their study involving Grade 1 pupils, examined numeracy skills and Mathematics performance and emphasized that numeracy competencies constitute an important foundation for improved mathematical achievement. Their findings support the view that strengthening basic numerical competencies during the elementary years is essential to improving learners' academic outcomes. Although their respondents were Grade 1 pupils, the study provides an important basis for examining whether a similar relationship exists among learners in higher elementary grades, particularly Grade Five pupils who are expected to demonstrate more complex mathematical reasoning and application skills.

More recent evidence has likewise supported the relationship between numeracy and academic performance. Francisco et al. (2025) investigated the numeracy skills and Mathematics performance of Grade VI learners in a Philippine public elementary school. The study demonstrated the relevance of assessing learners' numeracy competencies alongside their academic performance, providing local evidence that numeracy is closely associated with success in Mathematics. Similarly, Bautista and Dones (2025) found a significant positive relationship between numeracy skills and Mathematics performance among Grade 7 students. Their findings further indicate that learners with stronger numeracy competencies tend to demonstrate better academic outcomes in Mathematics. However, because their participants were junior high school students, their findings do not specifically explain the relationship between numeracy and mathematical performance among Grade Five pupils.

The importance of numeracy assessment has also been highlighted by Sebastian et al. (2025), who examined learners' proficiency in numeracy using the Enhanced Regional Unified Numeracy Test. Their study emphasized the usefulness of numeracy assessment in identifying learners' proficiency levels and providing a basis for school-based policies and interventions. Likewise, Selorio and Futralan (2025) assessed foundational numeracy skills among Grades 1 to 3 pupils and found areas of difficulty in foundational numerical competencies. These studies demonstrate the continuing need for systematic assessment of numeracy, particularly because identifying specific competency gaps can help teachers develop targeted instructional interventions.

The different domains of mathematics also require consideration in assessing numeracy. Number and Algebra develops learners' understanding of numerical relationships, operations, patterns, and mathematical structures. Measurement and Geometry develops spatial reasoning and the ability to apply concepts involving measurement, shapes, dimensions, and relationships. Data and Probability, meanwhile, develops learners' ability to collect, organize, represent, interpret, and draw conclusions from information. Recent research has increasingly emphasized the importance of mathematics instruction that promotes application, reasoning, and interpretation rather than focusing exclusively on computational procedures. This is particularly relevant to Data and Probability, where learners are required to interpret representations and make conclusions based on evidence.

The Philippine Department of Education has also recognized the need to strengthen mathematics competencies through learning recovery initiatives. The Academic Recovery and Accessible Learning (ARAL) Program was established to address learning gaps and provide targeted support in essential learning areas, including Mathematics (Department of Education [DepEd], 2024a). DepEd has likewise reported positive developments from targeted mathematics interventions, including phone-based tutoring for Grades 3 to 5 learners. The program used weekly messages and phone calls to provide targeted mathematics instruction and demonstrated the potential of individualized and accessible approaches to mathematics remediation (DepEd, 2024b). These initiatives reinforce the importance of identifying learners' specific numeracy needs so that appropriate interventions can be designed and implemented.

Recent research has also considered the influence of learner and family characteristics on numeracy and mathematical achievement. Socioeconomic conditions may influence learners' access to educational resources, learning materials, technology, and additional academic support. Parents' educational attainment may also affect the extent to which they can provide assistance with school-related activities. In addition, parents' occupations may influence the amount of time and resources available for supporting children's learning. However, the extent to which these variables influence pupils' self-perceived numeracy skills may vary across contexts. Thus, examining demographic variables such as sex, sibling position, number of children in the family, family income, parents' educational attainment, and parents' occupation can provide a more contextualized understanding of differences in numeracy skills.

Recent research has also shown that demographic differences in numeracy should not be assumed without empirical examination. Salinas and Cancio (2025), for example, examined differences in numeracy skills according to sex, grade level, and socioeconomic status among junior high school students. Their study illustrates

the continuing relevance of demographic and socioeconomic variables in understanding learners' numeracy development. Nevertheless, findings involving older learners cannot automatically be generalized to elementary pupils because mathematical competencies, learning experiences, family influences, and instructional contexts change across grade levels.

Despite the growing body of recent research on numeracy and Mathematics performance, several gaps remain. First, many recent studies have focused either on foundational numeracy among early-grade learners or on Mathematics achievement among junior high school students. Pitogo and Oco (2023), for instance, focused on Grade 1 pupils, while Bautista and Dones (2025) examined Grade 7 students. There is comparatively less recent evidence specifically focusing on Grade Five pupils, who occupy an important transitional stage in elementary mathematics learning.

Second, existing studies have generally examined numeracy as an overall competency or have focused on general mathematical achievement. Fewer studies have simultaneously examined the three specific content areas of Number and Algebra, Measurement and Geometry, and Data and Probability. This creates a need for a more comprehensive assessment that identifies pupils' competencies across these distinct but interconnected areas.

Third, although recent studies have established a relationship between numeracy and Mathematics performance, there remains a need to examine this relationship using pupils' self-perceived numeracy skills and documented Mathematics grades. Francisco et al. (2025) and Bautista and Dones (2025) provide evidence of the association between numeracy and academic performance, but their contexts, grade levels, and variables differ from those of the present study. Examining pupils' perceptions alongside their actual academic performance may provide additional information about their mathematical confidence and perceived competence.

Fourth, there is limited recent evidence examining whether pupils' numeracy skills significantly differ according to the combined demographic variables considered in this study, particularly sex, sibling position, number of children in the family, monthly family income, parents' educational attainment, and parents' occupation. Existing studies have considered selected demographic or socioeconomic variables, but fewer have examined these variables collectively within a Philippine Grade Five public-school context.

Finally, there is a clear local contextual gap concerning Grade Five pupils in the public elementary schools of Pililla District, Schools Division Office of Rizal. While recent Philippine studies provide valuable evidence regarding numeracy and Mathematics achievement, findings from other regions, grade levels, and school contexts cannot automatically be generalized to Pililla District. The present study therefore addresses this gap by determining the level of numeracy skills of Grade Five pupils across Number and Algebra, Measurement and Geometry, and Data and Probability; examining differences according to selected demographic characteristics; determining their Mathematics performance; and establishing whether a significant relationship exists between numeracy skills and mathematical performance. The findings can provide a localized empirical basis for strengthening mathematics instruction, designing targeted interventions, and developing an action plan responsive to the specific needs of Grade Five pupils.

2. Material and methods

2.1 Research Design

The study employed a descriptive survey research design and documentary analysis to determine the numeracy skills of Grade Five pupils in Number and Algebra, Measurement and Geometry, and Data and Probability and examine their relationship with the pupils' mathematical performance

2.2 Locale of the Study

The study was conducted in Bugarin Elementary School, Halayhayin Elementary School, Hulo Elementary School, Malaya Elementary School, Matagbak Elementary School, Niogan Elementary School, Pililla Elementary School Central, Quisao Elementary School, and Virgilio B. Melendres Memorial Elementary School in Pililla District, Schools Division Office of Rizal, during School Year 2025–2026.

2.3 Respondents of the Study

The respondents were 390 selected Grade Five pupils from the identified public elementary schools in Pililla District, drawn from a total population of 1,390 Grade Five pupils, and were described according to sex, sibling position, number of children in the family, monthly family income, parents' educational attainment, and parents' occupation.

2.4 Sample and Sampling Procedure

The sample size of 390 Grade Five pupils was determined using Slovin's formula, and the respondents were selected through simple random sampling to provide each pupil an equal opportunity to participate in the study.

2.5 Research Instrument

The study utilized a researcher-made questionnaire checklist to determine the pupils' level of numeracy skills in Number and Algebra, Measurement and Geometry, and Data and Probability, while their final grades in Mathematics for School Year 2025–2026 were obtained through documentary analysis as the basis for determining mathematical performance.

2.6 Data Gathering Procedure

After securing the necessary permissions from the concerned authorities and school heads, the researcher administered the validated questionnaire to the selected Grade Five respondents, collected the accomplished instruments, and obtained the pupils' Mathematics grades through documentary analysis while observing appropriate confidentiality and ethical research procedures.

2.7 Data Analysis Techniques

The gathered data were analyzed using frequency and percentage, weighted mean, appropriate tests of significant difference, and Pearson product-moment correlation coefficient (r) to determine the respondents' profile, level of numeracy skills, differences across demographic variables, mathematical performance, and significant relationship between numeracy skills and mathematical performance.

2.8 Ethical Considerations

The study observed ethical principles in conducting research involving human participants. Participation in the study was voluntary, and the respondents were informed about the purpose of the research before answering the questionnaire. The information gathered from the respondents was used solely for academic purposes and was treated with confidentiality. The researcher ensured that the respondents' identities and personal information were protected throughout the research process. The collected data were analyzed and reported objectively to maintain the integrity and credibility of the study.

3. Results and Discussion

3.1 Profile of the Respondents in Terms of the Selected Variables

In terms of sex, 199 or 51.0% were male, while 191 or 49.0% were female, indicating a nearly balanced distribution. With respect to sibling position, the largest group consisted of first-born pupils with 94 or 24.1%, followed by second-born pupils with 90 or 23.1%, third-born with 74 or 19.0%, fourth-born with 68 or 17.4%, and fifth-born and above with 64 or 16.4%. Regarding the number of children in the family, most respondents belonged to families with 2–3 children, comprising 137 or 35.1%, followed by families with 4–5 children with 125 or 32.1%, families with one child with 111 or 28.4%, and families with six or more children with 17 or 4.4%. In terms of monthly family income, the largest proportion of respondents belonged to families earning ₱20,000–₱24,999, with 124 or 31.8%, followed by those earning ₱30,000 and above with 99 or 25.4%, ₱25,000–₱29,999 with 95 or 24.3%, and below ₱20,000 with 72 or 18.5%. As to parents' educational attainment, fathers were mostly college undergraduates, with 100 or 25.6%, followed by college graduates with 96 or 24.6%, high school graduates with 90 or 23.1%, high school undergraduates with 85 or 21.8%, and elementary graduates with 19 or 4.9%. Similarly, mothers were predominantly college undergraduates, with 146 or 37.4%, followed by college graduates with 99 or 25.4%, high school graduates with 69 or 17.7%, high school undergraduates with 64 or 16.4%, and elementary graduates with 12 or 3.1%. Regarding parents' occupations, most fathers were employed locally, with 138 or 35.3%, followed by self-employed with 93 or 23.9%, entrepreneurs with 74 or 19.0%, househusbands/housewives with 45 or 11.5%, others with 28 or 7.2%, and overseas Filipino workers (OFWs) with 12 or 3.1%. Similarly, most mothers were employed locally, with 125 or 32.0%, followed by self-employed with 98 or 25.1%, entrepreneurs with 72 or 18.5%, housewives/househusbands with 55 or 14.1%, others with 26 or 6.7%, and OFWs with 14 or 3.6%. Overall, the respondents were characterized by a relatively balanced sex distribution, predominance of first-born pupils, families with two to five children, moderate household income, parents with college-level educational backgrounds, and parents who were primarily employed locally.

3.2 Level of Numeracy Skills in Terms of Content Areas of Grade Five Pupils as Perceived by Themselves with Respect to the Different Aspects

The results show a composite weighted mean of 3.44, verbally interpreted as Moderately Skillful, indicating that the pupils generally perceive themselves as having adequate numeracy skills across the three content areas. Among the aspects, Number and Algebra obtained the highest overall weighted mean of 3.68, interpreted as Much Skillful and ranked first, suggesting that pupils are most confident in dealing with numerical operations, relationships, patterns, and basic algebraic concepts. This was followed by Measurement and Geometry, which obtained a weighted mean of 3.48, interpreted as Moderately Skillful and ranked second, indicating that pupils

demonstrate a moderate level of confidence in applying concepts related to measurement, shapes, spatial relationships, and geometric reasoning. Meanwhile, Data and Probability obtained the lowest weighted mean of 3.16, also interpreted as Moderately Skillful, and ranked third, indicating that this is the area in which pupils perceive themselves to have the least developed numeracy skills. Overall, the findings suggest that although Grade Five pupils have a relatively stronger foundation in Number and Algebra, they may require additional support in applying mathematical concepts involving data interpretation, probability, and the use of information to make conclusions and decisions. The lower rating in Data and Probability may indicate that pupils have fewer opportunities to engage in activities requiring them to collect, organize, interpret, and analyze real-world data compared with activities involving routine numerical operations. Thus, teachers may strengthen instruction in this area through hands-on and inquiry-based activities, including classroom surveys, simple experiments, data collection, tables, graphs, and real-life problem situations that encourage pupils to interpret information and make evidence-based conclusions. The stronger performance in Number and Algebra may also be utilized as a foundation for developing more complex numeracy competencies by connecting familiar numerical concepts with data analysis and probability tasks. The findings are consistent with the discussion of Ofsted (2023), which emphasizes that numeracy extends beyond number and measurement to include understanding how data are obtained through counting and measuring and subsequently represented through graphs, diagrams, charts, and tables. This supports the present finding that numeracy encompasses interconnected skills that learners need to apply mathematics effectively across different situations, thereby highlighting the importance of providing balanced instructional attention to all content areas, particularly Data and Probability where pupils reported the lowest level of perceived skill.

3.3 Significant Difference on the Level of Numeracy Skills in Terms of Content Areas of Grade Five Pupils as Perceived by Themselves With Respect to the Different Aspects Terms of Their Profile

The results show that there were no significant differences in pupils' perceived numeracy skills in all three content areas when grouped according to sex, sibling position, and number of children in the family, as all obtained p-values greater than the 0.05 level of significance. For sex, the p-values ranged from 0.112 to 0.512; for sibling position, from 0.332 to 0.721; and for the number of children in the family, from 0.487 to 0.983, resulting in the acceptance of the null hypothesis in all cases. This indicates that male and female pupils, regardless of their position among siblings or family size, generally have comparable perceptions of their numeracy abilities. However, significant differences were found across all three content areas when pupils were grouped according to monthly family income, fathers' educational attainment, mothers' educational attainment, fathers' occupation, and mothers' occupation, as reflected by p-values below 0.05. Monthly family income yielded significant differences in Number and Algebra ($p = 0.014$), Measurement and Geometry ($p = 0.008$), and Data and Probability ($p = 0.012$); fathers' educational attainment showed significant differences across the three areas ($p = 0.029$, $p = 0.001$, and $p = 0.002$, respectively); while mothers' educational attainment also produced significant differences ($p = 0.031$, $p = 0.007$, and $p = 0.044$, respectively). Similarly, fathers' occupation resulted in significant differences in Number and Algebra ($p = 0.002$), Measurement and Geometry ($p = 0.017$), and Data and Probability ($p = 0.028$), while mothers' occupation yielded significant differences in the same areas, with p-values of 0.002, 0.031, and 0.017, respectively. These results indicate that pupils' self-perceived numeracy skills vary according to socioeconomic and parental background characteristics, particularly family income, parents' educational attainment, and parents' occupation, while sex and family-structure variables do not significantly differentiate their perceptions. The findings suggest that access to learning resources, parental educational support, and the socioeconomic conditions of the household may contribute to differences in pupils' mathematical self-perceptions. Pupils from families with fewer economic or educational resources may consequently benefit from additional academic support, learning materials, scaffolding, and positive reinforcement to strengthen both their numeracy skills and confidence in Mathematics. On the other hand, the absence of significant differences according to sex, sibling position, and family size suggests that numeracy interventions may be implemented inclusively across these groups rather than being differentiated primarily on the basis of these characteristics. The finding concerning sex is consistent with Cabuquin (2023), who reported no significant difference between male and female learners in mathematics, suggesting that sex alone does not necessarily determine learners' mathematical abilities. Overall, the results emphasize that socioeconomic and parental educational conditions appear to be more influential than sex and family-structure characteristics in differentiating Grade Five pupils' self-perceived numeracy skills across Number and Algebra, Measurement and Geometry, and Data and Probability.

3.4 Level of Mathematical Performance of Grade Five Pupils as Revealed by Their Average Grades

The results show that the pupils generally demonstrated a Satisfactory level of mathematical performance, as indicated by an overall mean grade of 84.46 with a standard deviation of 4.864. The largest proportion of pupils, 123 or 31.6%, obtained grades within the 80–84 range, interpreted as Satisfactory, followed by 110 or 28.2% who obtained grades of 85–89, interpreted as Very Satisfactory. Meanwhile, 84 or 21.5% of the pupils attained grades of 90 and above, classified as Outstanding, while 73 or 18.7% obtained grades within the 75–79 range, interpreted as Fairly Satisfactory. Notably, none of the respondents obtained a grade below 75, indicating that all pupils met the minimum expectations in Mathematics based on their recorded average grades. The highest grade was 93, while the lowest was 77, further showing that the pupils' performance was concentrated within the satisfactory to

outstanding levels. The standard deviation of 4.864 indicates a moderate variation in the pupils' grades around the mean, suggesting that although differences in performance exist, there were no extreme disparities among the respondents. The findings indicate that the majority of Grade Five pupils were able to meet or exceed the expected level of achievement in Mathematics, although a considerable proportion remained within the Fairly Satisfactory and Satisfactory categories and may benefit from additional instructional support. The results also suggest the need to strengthen pupils' competencies beyond merely attaining passing grades, particularly in areas requiring higher-order thinking, application, interpretation, and problem-solving. Considering that Data and Probability obtained the lowest self-perceived numeracy rating in Table 6, teachers may give particular attention to this area when designing enrichment and remediation activities. The use of performance records together with pupils' self-assessments may provide teachers with a more comprehensive basis for identifying learning needs and developing targeted interventions. The finding is consistent with Hebrés (2022), who reported that the Mathematics performance of Grade 10 students fell within the 80–84 range, interpreted as Satisfactory, indicating that although learners generally achieved an acceptable level of performance, further enhancement activities were necessary for those who demonstrated weaknesses in specific mathematical competencies. Thus, the present findings reinforce the importance of sustaining instructional support to move pupils from satisfactory levels toward higher levels of mathematical proficiency.

3.5 Significant Relationship Between the Perceived Level of Numeracy Skills in Terms of Content Areas of Grade Five Pupils and Their Level of Mathematical Performance

The results reveal a significant and positive relationship across all three aspects, with correlation coefficients ranging from 0.765 to 0.838, indicating strong associations between pupils' perceived numeracy skills and their actual Mathematics performance. Specifically, Number and Algebra obtained an r -value of 0.765 with a p -value of 0.011, Measurement and Geometry yielded an r -value of 0.786 with a p -value of 0.034, while Data and Probability obtained the highest correlation, with an r -value of 0.838 and a p -value of 0.029. Since all p -values are below the 0.05 level of significance, the null hypothesis is rejected for all three content areas, establishing that pupils' perceived numeracy skills are significantly related to their mathematical performance. The findings indicate that pupils who perceive themselves as more skillful in Number and Algebra, Measurement and Geometry, and Data and Probability tend to obtain higher Mathematics grades, while those who report lower levels of perceived numeracy skills tend to demonstrate comparatively lower academic performance. The relatively strong correlation in Data and Probability is particularly noteworthy because this content area also obtained the lowest self-perceived numeracy rating in Table 6, suggesting that although pupils may feel less confident in this area, those who perceive greater competence in it tend to achieve better Mathematics performance. The results further suggest that pupils possess a reasonable level of awareness of their mathematical abilities, as their self-perceptions are meaningfully associated with their documented academic performance. This indicates that self-assessment may serve as a useful supplementary tool for teachers in identifying pupils who may require remediation, enrichment, or additional instructional support. Teachers may therefore consider incorporating structured self-assessment activities alongside formal assessments to identify learning needs, particularly in areas such as Data and Probability. The findings are consistent with Oco (2023), who reported a significant relationship between mathematical skills and Mathematics performance and emphasized the importance of strengthening learners' mathematical competencies and providing teachers with appropriate instructional strategies. Similarly, Cabuquin (2023) found a positive and highly significant relationship between learners' Mathematics performance and academic achievement, indicating that stronger mathematical competencies are associated with better academic outcomes. Overall, the findings of the present study demonstrate that numeracy skills across the three content areas are important factors associated with the mathematical performance of Grade Five pupils.

4. Conclusion & Recommendations

The study concludes that the Grade Five pupils in public elementary schools in Pililla District are generally moderately skillful in numeracy, with their strongest perceived competency in Number and Algebra and their weakest in Data and Probability. Their mathematical performance was generally satisfactory, as reflected by a mean grade of 84.46, with all respondents meeting the minimum expected level. The findings further indicate that sex, sibling position, and number of children in the family do not significantly differentiate pupils' perceived numeracy skills; however, significant differences were found according to monthly family income, parents' educational attainment, and parents' occupation. Most importantly, significant positive relationships were established between perceived numeracy skills and mathematical performance across Number and Algebra, Measurement and Geometry, and Data and Probability, indicating that pupils who perceive themselves as more skillful in mathematics tend to demonstrate better academic performance. Based on these findings, the study recommends that school administrators strengthen mathematics programs through targeted professional development for teachers, particularly on strategies for teaching Data and Probability, while ensuring that interventions are responsive to pupils from varying socioeconomic backgrounds.

Teachers are further recommended to provide hands-on, inquiry-based, and real-world learning activities involving data collection, organization, interpretation, graphical representation, probability experiments, and evidence-based decision-making, while continuing to reinforce competencies in Measurement and Geometry and Number and Algebra. Self-assessment activities may be regularly used as supplementary diagnostic tools to identify pupils who have low confidence or may be at risk of low mathematical performance, followed by appropriate remediation, enrichment, and individualized support. Schools may also provide additional learning resources and parental engagement activities for pupils whose socioeconomic circumstances may limit access to educational support at home. The proposed action plan may be implemented to strengthen pupils' numeracy competencies and improve their Mathematics performance. Finally, similar studies may be conducted in other schools, districts, or grade levels using additional variables and larger samples to further examine the factors associated with numeracy development and mathematical achievement.

5. Compliance with ethical standards

The author affirms that no conflicts of interest exist in relation to this study. The research was conducted in accordance with accepted ethical principles for human-participant research, including obtaining informed consent, ensuring voluntary participation, allowing participants to withdraw at any stage without consequence, and protecting participant confidentiality through anonymous, secure, and aggregated data management. Because the study examined psychological well-being, all research procedures were non-invasive and implemented with appropriate measures to reduce the risk of discomfort. Participants were informed of available support services should the need arise. Furthermore, the necessary institutional approvals were obtained for the administration of the research instruments and access to relevant academic records.

REFERENCES

- Bautista, W., & Dones, Q. (2025). Numeracy skills and attitude towards mathematics of students in relation to performance: Basis for intervention program. *Psychology and Education: A Multidisciplinary Journal*, 33(2), 167–185. <https://doi.org/10.70838/pemj.330204>
- Cabuquin, J. C., & Abocejo, F. T. (2023). Mathematics learners' performance and academic achievement at a public high school institution in Leyte, Philippines. *Formatif: Jurnal Ilmiah Pendidikan MIPA*, 13(2), 123–136. <https://doi.org/10.30998/formatif.v13i2.17235>
- Department of Education. (2024a, October 18). President Marcos signs ARAL Law to accelerate learning recovery. <https://www.deped.gov.ph/2024/10/18/president-marcos-signs-aral-law-to-accelerate-learning-recovery/>
- Department of Education. (2024b, November 26). DepEd, partners report positive educational outcomes with phone-based tutoring program. <https://www.deped.gov.ph/2024/11/26/deped-partners-report-positive-educational-outcomes-with-phone-based-tutoring-program/>
- Francisco, P. K. D., Anating, N. B., Apurillo, S. E., De La Pena, P. B., Espinosa, A. R. C., & Tumlos, P. T. H. (2025). Numeracy skills and academic performance of elementary learners. *International Journal of Research and Innovation in Social Science*, 9(3), 3720–3748. <https://doi.org/10.47772/IJRIS.2025.90300295>
- Hebres, R. B. (2023). Academic performance and numeracy level of Grade 10 students in Mathematics. *International Journal of Science and Research*, 12(2), 550–554.
- Ofsted. (2023). School inspections: Statistical commentaries 2022 to 2023. GOV.UK. <https://www.gov.uk/government/publications/school-inspections-statistical-commentaries-2022-to-2023>
- Pitogo, S. D., & Oco, R. M. (2023). Pupils' numeracy skills and Mathematics performance. *International Journal of Multidisciplinary Research and Publications*, 6(2), 333–340.