

Effects of National Mathematics Program on the Numeracy Skills and Academic Performance of Grade Six Pupils

Maria Lucydelle R. Aragones, MAEd

Graduate Student, Tomas Claudio Colleges, Morong, Rizal, Philippines

Teacher I, Ithan Elementary School, Binangonan, Rizal Philippines

Publication history: Received: March 1, 2026; Revised: March 9, 2026; Accepted: March 14, 2026

Email of Corresponding Author: marialucydelle09@gmail.com

Abstract

This study investigated the effects of the National Mathematics Program on the numeracy skills and academic performance of Grade Six pupils in selected public elementary schools in the Binangonan District, Schools Division Office of Rizal, during the School Year 2025–2026. The schools involved in the study included Bilibiran Elementary School, Doña Susana Madrigal Elementary School, Ithan Elementary School, Kalinawan Elementary School, Tagpos Elementary School, and Tayuman Elementary School. The research employed a descriptive survey research design and documentary analysis to determine the extent to which the program influences pupils' numeracy skills and academic outcomes. The respondents of the study consisted of two groups. The first group included the total population of Grade Six teachers from the identified schools, composed of fifty (50) teachers selected through purposive sampling. They were described in terms of age, sex, civil status, educational attainment, position title, length of service, and in-service trainings attended. The second group consisted of selected Grade Six pupils. Using Slovin's formula, a sample of three hundred twenty-one (321) pupils was drawn from a population of 1,606 through simple random sampling. The pupils were profiled according to sex, sibling position, number of children in the family, monthly family income, parents' educational attainment, and parents' occupation. Data were gathered using a researcher-made questionnaire checklist which measured the perceived effects of the National Mathematics Program on pupils' numeracy skills in terms of understanding mathematical concepts, computational skills, and mathematical communication. Documentary analysis was also conducted using the pupils' first quarter Mathematics grades as a measure of academic performance. Findings revealed that the National Mathematics Program had a high effect on pupils' numeracy skills across the identified domains. A significant difference was found between teachers' and pupils' perceptions regarding the program's effects. Moreover, a significant relationship existed between the perceived effects of the program and pupils' academic performance in Mathematics. The study concludes that strengthening the implementation of the National Mathematics Program can further enhance numeracy development among elementary learners. It is recommended that teachers implement varied instructional strategies and intervention activities to improve pupils' numeracy skills and academic performance in Mathematics.

Keywords: National Mathematics Program, numeracy skills, academic performance, mathematical communication, computational skills, elementary education.

1. Introduction

One of the core subjects taught in the elementary level is Mathematics. Mathematics plays a crucial role in developing logical reasoning, problem-solving ability, and critical thinking skills among learners. However, despite its importance, many pupils experience difficulties and anxiety when learning mathematics. Fear of failure, lack of confidence, and negative past experiences often result in low motivation and poor academic performance. Mathematics anxiety may cause pupils to avoid mathematical tasks, thereby hindering the development of their numeracy skills and reducing their interest in learning the subject. Because of these challenges, educators and policymakers have emphasized the need to implement effective programs and instructional strategies that can improve pupils' numeracy competencies.

In response to the need for improved foundational learning, the Department of Education introduced the MATATAG Curriculum as stipulated in DepEd Order No. 10, s. 2024. The MATATAG Curriculum aims to streamline competencies, ensure logical progression of learning, and prioritize the development of foundational literacy and numeracy skills. The curriculum focuses on strengthening learners' mastery of essential competencies and equipping them with the necessary skills needed in the 21st century. As part of this reform initiative, additional support programs were introduced to reinforce foundational learning, particularly the National Reading Program and the National Mathematics Program.

The National Mathematics Program (NMP) was designed to strengthen numeracy development among learners by providing targeted interventions and differentiated learning experiences. The program begins with a diagnostic assessment to determine the learners' existing mathematical knowledge and skills based on the Most Essential Learning Competencies. After the assessment, learners are categorized into intervention, consolidation, or enhancement groups depending on their level of proficiency. Through this approach, pupils receive learning activities appropriate to their needs, allowing teachers to address specific learning gaps in mathematics. The program also encourages the use of varied instructional strategies, continuous assessment, parental involvement, and integration of technology to enhance the teaching and learning process.

Several studies have examined the effectiveness of mathematics programs and interventions in improving learners' numeracy skills. Research conducted by Farooq (2023) showed that students' logical thinking skills significantly influence their mathematics performance, with differences observed based on gender and school type. Similarly, Seker (2022) found that a mathematics education program supported by storytelling significantly improved children's early mathematics abilities, demonstrating the importance of innovative instructional approaches in developing mathematical understanding. Nasef (2021) also reported that mathematics programs based on cognitive learning approaches can significantly enhance students' academic motivation and creative thinking in mathematics.

Local studies also support the effectiveness of mathematics intervention programs in improving learners' performance. Segarino (2024) found that numeracy intervention activities significantly improved the test performance of Grade 3 pupils, highlighting the importance of instructional support and supervision in strengthening numeracy development. Similarly, Magtolis (2023) reported that Project Renrich significantly improved the numeracy skills of Grade 5 learners, demonstrating the effectiveness of structured intervention programs in enhancing learners' mathematical competence.

Despite the presence of various intervention programs and instructional strategies aimed at improving numeracy skills, several gaps remain in the existing literature. Many previous studies focused on experimental designs evaluating specific intervention programs or targeted learners in different grade levels such as preschool, Grade 1, Grade 3, Grade 5, or secondary school students. Furthermore, some studies examined the implementation of mathematics programs but did not explore the relationship between the perceived effects of such programs and pupils' academic performance. There is also limited research that simultaneously considers both teachers' and pupils' perceptions regarding the effects of national mathematics initiatives on numeracy development.

Given these gaps, there is a need to further examine the effects of the National Mathematics Program on learners' numeracy skills and academic performance, particularly among Grade Six pupils in public elementary schools. Understanding how the program influences pupils' conceptual understanding, computational skills, and mathematical communication can provide valuable insights for improving mathematics instruction and strengthening the implementation of national education programs.

Hence, this study was conducted to determine the effects of the National Mathematics Program on the numeracy skills and academic performance of Grade Six pupils in selected public elementary schools in Binangonan District, Schools Division Office of Rizal. The findings of this study are expected to provide empirical evidence that may contribute to the improvement of mathematics instruction, support the effective implementation of the National Mathematics Program, and help educators develop appropriate intervention strategies to enhance pupils' numeracy skills and academic performance..

2. Materials and methods

2.1 Research Design

The study used descriptive type of research utilizing a questionnaire as the tool in gathering pertinent data..

2.2 Research Setting

The study was conducted in selected public elementary schools in Binangonan District Schools Division Office of Rizal. These schools include Bilibiran Elementary School, Dona Susana Madrigal Elementary School. Ithan Elementary School, Kalinawan Elementary School, Tagpos Elementary School and Tayuman Elementary School.

2.3 Respondents

The study considered two groups of respondents. The first group consists of the total population of grade six teachers in selected public elementary schools in the Binangonan District . This consists of 50 teachers. Purposive sampling technique was used. They were described in terms of age, civil status, educational attainment, position title, length of service and in-service trainings attended. The second group of respondents were selected pupils in the cited schools. The

sample size was determined utilizing Slovin's formula. Hence, out of 1606 grade six pupils, 321 pupils were considered. They were chosen utilizing simple random sampling technique. They were described in terms of sex, sibling position, number of children in the family, monthly family income, parents' educational attainment and parents' occupation.

2.4 Research Instruments

The study utilized a researcher-made questionnaire-checklist as the primary instrument for data collection. The instrument consisted of two parts. Part I gathered the profile of the respondents, including teachers' age, sex, educational attainment, length of service, position title, and in-service trainings attended, as well as pupils' sex, sibling position, number of children in the family, monthly family income, parents' educational attainment, and parents' occupation. Part II measured the extent of the effects of the National Mathematics Program on the numeracy skills of Grade Six pupils in terms of understanding mathematical concepts, computational skills, and mathematical communication, with ten items for each aspect or a total of thirty items. A five-point Likert scale ranging from "Never" (Very Low Effect) to "Always" (Very High Effect) was used to rate each item. Pupils' academic performance was interpreted using the Department of Education grading scale ranging from Outstanding to Did Not Meet Expectations. The instrument underwent content validation by experts including teachers, the thesis adviser, a statistician, the dean, professorial lecturers, a master teacher, and a mathematics coordinator, whose comments and suggestions were incorporated before the final administration of the questionnaire.

2.5 Data Collection

The researcher followed the Gantt Chart of Activities in the conduct of the study. This includes the formulation of research problem up to the revision of the manuscript and submission of the final copy. After the validation of the instrument, permission to conduct the study was obtained from the Office of the Schools Division Superintendent. The questionnaire-checklists was administered to the respondents through the Google Survey form and printed questionnaire checklist in compliance with the Data Privacy Act of 2012. After the retrieval, the data were encoded and processed through the Statistical Package for Social Sciences (SPSS) in the College Statistical Center. Analysis and interpretation of data followed. Based on the interpreted data, summary of findings, conclusions and recommendations were formulated. After the oral defense, suggestions made by the panel members were incorporated. The manuscript was subjected to anti-plagiarism test in the statistical center. After the final editing and revision, hardbound copies were submitted to the Office of the Dean of the Graduate Studies Program and other offices concerned.

2.6 Data Analysis

For the analysis and interpretation of data, several statistical tools were employed. Frequency, percentage, and rank distribution were used to determine the profile of the two groups of respondents based on the selected variables. The weighted mean was utilized to determine the extent of the effects of the National Mathematics Program on the numeracy skills of Grade Six pupils as perceived by the two groups of respondents in terms of understanding mathematical concepts, computational skills, and mathematical communication. The independent t-test was applied to determine whether there was a significant difference between the perceptions of the two groups of respondents regarding the effects of the program. One-way analysis of variance (ANOVA) was used to identify significant differences in the respondents' perceptions when grouped according to their profile variables. To determine the level of academic performance of Grade Six pupils based on their first quarter Mathematics grades, frequency, mean, and standard deviation were used. Finally, correlation analysis was employed to determine the significant relationship between the perceived effects of the National Mathematics Program on pupils' numeracy skills and their level of academic performance.

2.7 Ethical Considerations

The study ensured the protection of the rights and welfare of all respondents. Participation was voluntary, and respondents were informed about the purpose of the study. Confidentiality and anonymity of all information provided were strictly maintained, and data were used solely for research purposes. The researcher ensured that the respondents were treated with respect and that no harm, whether physical, emotional, or psychological, would result from their participation in the study.

3. Results and Discussion

3.1. Profile of the Two Groups of Respondents in Terms of the Selected Variables

As reflected in the table 1.1., out of 50 teacher-respondents, 36% are 21-30 years old and 32 % are 31-40 years old. The rest are 41-50 years old and 51 years old and above. Most of them are females with 76 %. With regard to their civil status, most of them are married with 68 %. As to their educational attainment, most of them are Masters' degree holder with 40 % while 30 % have MA units. As regard to their length of service, 46 % have been in the service for 11-20 years and 30 % have been teaching for 1-10 years. With regard to their position title, 40 % are Teacher II, 30 % are Teacher I while 20 % are Teacher III and the rest are Master Teachers. In terms of in-service trainings attended, 28 % have attended in the district level, 24 % in the division level and the rest have attended in the school, national and international levels.

Table 1.1. : Frequency, Percentage and Rank Distribution of the Teacher-Respondents in Terms of the Selected Variables

Profile	f	%	Rank
Age			
51 years old and above	6	12.0	4
41 – 50 years old	10	20.0	3
31 – 40 years old	16	32.0	2
21 – 30 years old	18	36.0	1
Total	50	100.0	
Sex			
Male	12	24.0	2
Female	38	76.0	1
Total	52	100.0	
Civil Status			
Single	16	32.0	2
Married	34	68.0	1
Total	50	100.0	
Educational Attainment			
with Doctorate units	3	6.0	4
Master's Degree	20	40.0	1
With MA units	15	30.0	2
Bachelor's Degree	12	24.0	3
Total	50	100.0	
Length of Service			
21 years and above	12	24.0	3
11 – 20 years	23	46.0	1
1 – 10 years	15	30.0	2
Total	50	100.0	
Position Title			
Master Teacher I	5	10.0	4
Teacher III	10	20.0	3
Teacher II	20	40.0	1
Teacher I	15	30.0	2
Total	50	100.0	
In-Service Trainings Attended			
National Level	6	12.0	5
Regional Level	8	16.0	4
Division Level	12	24.0	2
District Level	14	28.0	1
School Level	10	20.0	3
Total	52	100.0	

Table 1.2 below shows that out of 321 pupil-respondents, male and female are almost equal in number. In terms of sibling position, most of them are second born and first born with 22.7% and 12.8 respectively. With regard to the number of children in the family, most of them belong to families with 3 children and 4 and above with 38 % and 26.5 respectively. As to their monthly family income, most of the respondents have monthly family income below P 10,000 with 38%. With regard to parents' educational attainment, most of the parents are college graduates, college undergraduates and high school graduates. As to the parents' occupation most of them are self employed with 64.1 for the fathers and 67.9 for mothers.

Table 1.2 : Frequency, Percentage and Rank Distribution of the Pupil-Respondents in Terms of the Selected Variables

Profile	f	%	Rank
Sex			
Male	161	50.2	1
Female	160	49.8	2
Total	321	100.0	
Sibling Position			
1st	103	32.1	2
2nd	121	37.7	1
3rd	53	16.5	3

4th	40	12.5	4
5th	1	.3	6
6th and above	3	.9	5
Total	321	100.0	
Number of Children in the Family			
1	41	12.8	4
2	73	22.7	3
3	122	38.0	1
4 and above	85	26.5	2
Total	321	100.0	
Monthly Family Income			
Php 20,000 and above	69	21.5	2.5
Php 15,000 - Php 19, 999	69	21.5	2.5
Php 10,000 - Php 14,999	61	19.0	4
below Php 10,000	122	38.0	1
Total	321	100.0	
Parents' Educational Attainment	Father	Mother	
College Graduate	109	34.0	1
College Undergraduate	72	22.4	3
High School Graduate	85	26.5	2
High School Undergraduate	26	8.1	5
Elementary Graduate	28	8.7	4
Elementary Undergraduate	1	.3	6
Total	321	100.0	
Parents' Occupation	Father	Mother	
Government Employee	15	4.7	4
Private Employee	69	21.5	2
Self-Employed	206	64.1	1
OFW	31	9.7	3
Total	321	100.0	

3.2. Extent of Effects of National Mathematics Program on the Numeracy Skills of Grade Six Pupils as Perceived by the Two Groups of Respondents with Respect to the Different Aspects

As gleaned from the table, as perceived by teachers, all aspects are interpreted Often(High Effect) with a composite weighted mean of 4.24. Similarly, as perceived by pupils, all aspects are interpreted Often (High Effect) with a composite weighted mean of 4.06. It could be deduced from the results that as perceived by teachers and pupils, National Mathematics Program has high effect on the numeracy skills of pupils. This indicates that pupils' understanding of mathematical concepts, computational skills and mathematical communication are enhanced through the intervention activities implemented in the program. Findings imply that National Mathematics Program have shown positive effects on student numeracy skills, including significant improvement in foundational operations like addition, subtraction, multiplication, and division, and increased self-efficacy and confidence. However, the effectiveness can vary, and some students may still struggle, indicating a need for ongoing program enhancement to improve performance and address learning gaps. This conforms with the citation of Laid (2024), that the National Mathematics Program (NMP) is a program which help students understand how math connects to the real world. The goals of the National Mathematics Program is to increase the capacity to implement key principles for developing math skills; and Increase the availability of reliable data on math and numeracy progress. The National Mathematics Program helps students conquer their fear of math; Helps students develop cognitive skills, such as logical thinking and understanding math concepts; Helps students become more confident and equipped to solve math problems.

Table 2: *Extent of Effects of National Mathematics Program on the Numeracy Skills of Grade Six Pupils as Perceived by the Two Groups of Respondents with Respect to the Different Aspects*

Aspects	Teachers			Pupils		
	WX	VI	Rank	WX	VI	Rank
Understanding Mathematical Concepts	4.27	Often (High Effect)	1	4.08	Often (High Effect)	2
Computational Skills	4.23	Often (High Effect)	2.5	4.09	Often (High Effect)	1
Mathematical Communication	4.23	Often (High Effect)	2.5	4.02	Often (High Effect)	3
Composite WX	4.24	Often (High Effect)		4.06	Often (High Effect)	

3.3. Significant Difference Between the Perception of the Two Groups of Respondents on the Extent of Effects of National Mathematics Program on the Numeracy Skills of Grade Six Pupils With Respect to the Different Aspects

The table reflects that the t-test results obtained probability values less than .05. This rejects the null hypothesis stating that there is no significant difference between the perception of the two groups of respondents on the extent of effects of National Mathematics Program on the numeracy skills of grade six pupils with respect to the different aspects. Results reveal that the two groups of respondents differ on their perceptions regarding the effects of National Mathematics Program on the numeracy skills of pupils. This means that teachers and pupils perceived different degree of effects of National mathematics Program on the numeracy skills of learners with respect to understanding mathematical concepts, computational skills and mathematical communication. This implies that although both groups perceived that National Mathematics Program has high effect on the numeracy skills of pupils, the degree of effect is perceived differently. This further implies that teachers as implentor and facilitators of the program have different view of the effects . Pupils have different perceptions as beneficiaries of the program. This relates with the findings of Segarino (2024) that numeracy intervention Activities in the delivery of the most essential learning competencies in Mathematics is significantly effective in improving the numeracy performance of pupils. Moreover, it the integration of the numeracy intervention materials could assist the learners specially to those learners who are identified as non-numerates learners or those learners who have known skills on the different mathematical basic operations..

Table 3: *Significant Difference Between the Perception of the Two Groups of Respondents on the Extent of Effects of National Mathematics Program on the Numeracy Skills of Grade Six Pupils With Respect to the Different Aspects*

Aspects	t-value	p-value	Decision	Verbal Interpretation
Understanding Mathematical Concepts	2.749	.006	Rejected	Significant
Computational Skills	2.230	.026	Rejected	Significant
Mathematical Communication	6.704	.000	Rejected	Significant

3.4. Significant Difference on the Perception of the Two Groups of Respondents on the Extent of Effects of National Mathematics Program on the Numeracy Skills of Grade Six Pupils With Respect to the Different Aspects in Terms of Their Profile

As reflected in the table 4.1., with respect to the different aspects in terms of the different personal variables of the teacher-respondents, the F-test results showed that the probability values are all greater than .05. This fails to reject the null hypothesis stating that there is no significant difference on the perception of the teacher-respondents on the extent of effects of National Mathematics Program on the numeracy skills of grade six pupils with respect to the different aspects in terms of their profile. Findings indicate that no significant difference exists on the perception of the teacher-respondents on the extent of effects of National Mathematics Program on the numeracy skills of grade six pupils in terms of age, sex, civil status, educational attainment, length of service , position title and in-service trainings attended. This means that these variables have nothing to do with their perceptions. This implies that teachers recognize the positive effects of the implementation of National Mathematics Program on the numeracy skills of pupils regardless of their personal attributes. Furthermore, teachers are fully aware that the National Mathematics Program (NMP) was designed to improve the numeracy skills of primary learners, focusing on enhancing the effectiveness of mathematics instruction in elementary

schools. This relates with the findings of the study of Marcaida (2025) which revealed no significant differences between the perceived implementation of the NMP and teacher demographics, such as age, sex, teaching position, and educational attainment. The study also revealed a weak, non-significant positive correlation between the implementation of the NMP and learners' numeracy skill levels.

Table 4.1 *Significant Difference on the Perception of the Teacher-Respondents on the Extent of Effects of National Mathematics Program on the Numeracy Skills of Grade Six Pupils With Respect to the Different Aspects in Terms of Their Profile*

Variables/ Aspects	F-comp	p-values	Ho	VI
Age				
Understanding Mathematical Concepts	.325	.807	Accepted	Not Significant
Computational Skills	.203	.894	Accepted	Not Significant
Mathematical Communication	1.658	.179	Accepted	Not Significant
Sex				
Understanding Mathematical Concepts	.549	.579	Accepted	Not Significant
Computational Skills	.128	.880	Accepted	Not Significant
Mathematical Communication	1.438	.241	Accepted	Not Significant
Civil Status				
Understanding Mathematical Concepts	1.083	.368	Accepted	Not Significant
Computational Skills	1.852	.096	Accepted	Not Significant
Mathematical Communication	1.428	.228	Accepted	Not Significant
Educational Attainment				
Understanding Mathematical Concepts	1.387	.242	Accepted	Not Significant
Computational Skills	.504	.733	Accepted	Not Significant
Mathematical Communication	1.091	.074	Accepted	Not Significant
Position Title				
Understanding Mathematical Concepts	.208	.933	Accepted	Not Significant
Computational Skills	1.560	.189	Accepted	Not Significant
Mathematical Communication	1.328	.263	Accepted	Not Significant
Length of Service				
Understanding Mathematical Concepts	1.160	.333	Accepted	Not Significant
Computational Skills	1.318	.260	Accepted	Not Significant
Mathematical Communication	.905	.480	Accepted	Not Significant
In-service Trainings Attended				
Understanding Mathematical Concepts	1.102	.334	Accepted	Not Significant
Computational Skills	1.531	.321	Accepted	Not Significant
Mathematical Communication	.978	.568	Accepted	Not Significant

Table 4.2. below depicts that with respect to the different aspects in terms of mothers' educational attainment and parents' occupation of the pupil-respondents, the F-test results showed that the probability values are all less than .05. This rejects the null hypothesis stating that there is no significant difference on the perception of the pupil-respondents on the extent of effects of National Mathematics Program on the numeracy skills of grade six pupils with respect to the different aspects in terms of the cited variables. On the contrary, in terms of sex, sibling position, number of children in the family, monthly family income and fathers' educational attainment, the null hypothesis is accepted since all the probability values are greater than .05. Findings indicate that pupils' sex, sibling position, number of children in the family, monthly family income and fathers' educational attainment are not significant on their perception regarding the extent of effects of National Mathematics Program on the numeracy skills of grade six pupils. On the other hand, in terms of mothers' educational attainment and parents' occupation, significant difference exists. Findings imply that mothers' level of education and parents' occupation significantly influence the numeracy skills of pupils as enhanced by the activities undertaken in the National Mathematics Program. Findings further imply that sex, sibling position, number of children in the family, monthly family income and fathers' educational attainment are not contributory with the perceived effects of National Mathematics Program

Table 4.2 *Significant Difference on the Perception of the Pupil-Respondents on the Extent of Effects of National Mathematics Program on the Numeracy Skills of Grade Six Pupils With Respect to the Different Aspects in Terms of Their Profile*

Variables/ Aspects	F-comp	p-values	Ho	VI
Sex				
Understanding Mathematical Concepts	.068	.794	Accepted	Not Significant
Computational Skills	2.579	.109	Accepted	Not Significant
Mathematical Communication	2.379	.124	Accepted	Not Significant
Sibling Position				
Understanding Mathematical Concepts	.912	.486	Accepted	Not Significant
Computational Skills	2.064	.057	Accepted	Not Significant
Mathematical Communication	1.517	.172	Accepted	Not Significant
Number of Children in the Family				
Understanding Mathematical Concepts	1.566	.198	Accepted	Not Significant
Computational Skills	.168	.918	Accepted	Not Significant
Mathematical Communication	.224	.880	Accepted	Not Significant
Monthly Family Income				
Understanding Mathematical Concepts	1.532	.206	Accepted	Not Significant
Computational Skills	1.074	.360	Accepted	Not Significant
Mathematical Communication	1.015	.386	Accepted	Not Significant
Fathers' Educational Attainment				
Understanding Mathematical Concepts	1.673	.141	Accepted	Not Significant
Computational Skills	.885	.491	Accepted	Not Significant
Mathematical Communication	.849	.516	Accepted	Not Significant
Mothers' Educational Attainment				
Understanding Mathematical Concepts	3.665	.006	Rejected	Significant
Computational Skills	5.339	.005	Rejected	Significant
Mathematical Communication	2.782	.027	Rejected	Significant
Fathers' Occupation				
Understanding Mathematical Concepts	3.454	.002	Rejected	Significant
Computational Skills	2.451	.000	Rejected	Significant
Mathematical Communication	3.431	.000	Rejected	Significant
Mothers' Occupation				
Understanding Mathematical Concepts	3.785	.000	Rejected	Significant
Computational Skills	3.457	.000	Rejected	Significant
Mathematical Communication	3.890	.000	Rejected	Significant

3.5. Level of Academic Performance in Mathematics of Grade Six Pupils as Revealed by Their Average Grades in the First Quarter

The table depicts that with respect to the different aspects, the test of relationship shows probability values As depicted in the table as revealed by the average grades in Mathematics in the first quarter, out of 321 pupils, 74.1 % obtained average grades between 85-89 verbally interpreted Very Satisfactory, and 68.9 % obtained Satisfactory performance with average grades of 75-79. A few obtained average grades of 75-79 and Outstanding performance respectively both with 47.4%.. Findings reveal that as indicated by the mean score of 86.50 and standard deviation of 5.297, the pupils Very Satisfactory academic performance in Mathematics during the first quarter, This indicates a strong understanding of concepts, computational skills, and problem-solving abilities, as well as consistent learning progress. This reflects the high effect of the activities conducted in the National Mathematics Program. Findings imply that current instructional practices are working well and should be continued or enhanced. The results also support the integration of enrichment activities to further challenge learners and push performance toward excellence. This further implies that maintaining positive learning environments, providing timely interventions, and recognizing pupil achievements can help sustain and improve these academic outcomes. This is aligned with the findings of the study of Oco and Pitogo (2023) which showed that the numeracy skills in the pupils was at advanced level. The pupils' performance in Mathematics was at outstanding level. There exists a significant difference between the numeracy skills and Mathematics performance among the pupils.

Table 5: *Level of Academic Performance in Mathematics of Grade Six Pupils as Revealed by Their Average Grades in the First Quarter*

Average Grade	Verbal Interpretation	Frequency	Percent	Rank
90 and above	Outstanding	64	47.4	3.5
85 – 89	Very Satisfactory	100	74.1	1
80 – 84	Satisfactory	93	68.9	2
75 – 79	Fairly Satisfactory	64	47.4	3.5
Below 75	Did Not Meet Expectations	-	-	-
Total		321	100.0	
Highest Rating		95		
Lowest Rating		78		
Mean		86.50 (VS)		
Std. Deviation		5.297		

3.6. Significant Relationship Between the Perceived Effects of National Mathematics Program on the Numeracy Skills of Grade Six Pupils and Their Level of Academic Performance

The table shows that with regard to the test of relationship between the perceived effects of National Mathematics Program on the numeracy skills of grade six pupils and their level of academic performance, in all aspects, the probability values are all greater than .05. This means that the null hypothesis is accepted. Findings denote that there is no significant relationship between the perceived effects of National Mathematics Program on the numeracy skills of grade six pupils and their level of academic performance. Findings imply that pupils' academic performance in Mathematics is independent on the perceived effects of National Mathematics Program on the numeracy skills of grade six pupils. This further implies that academic performance of pupils is not significantly influence by the implementation of National Mathematics Program. This is contrary with the findings of the study of Francisco (2025) which revealed that there is a statistically significant relationship between the level of numeracy skills and academic performance in Mathematics of Grade VI learners regular class. Furthermore, the level of numeracy skills and academic performance of Grade VI learners regular class is positively correlated.

Table 6: *Significant Relationship Between the Perceived Effects of National Mathematics Program on the Numeracy Skills of Grade Six Pupils and Their Level of Academic Performance*

Aspects	r-value	p-value	Decision	Verbal Interpretation
Understanding Mathematical Concepts	.091	.210	Accepted	Not Significant
Computational Skills	.062	.276	Accepted	Not Significant
Mathematical Communication	.056	.678	Accepted	Not Significant

4. Conclusion & Recommendations

The study concludes that teachers and pupils have differing perceptions regarding the effects of the National Mathematics Program on the numeracy skills of Grade Six pupils in terms of understanding mathematical concepts, computational skills, and mathematical communication. Teachers' personal attributes significantly influence their perceptions of the program's effectiveness. In contrast, most of the pupils' profile variables—such as sex, sibling position, number of children in the family, monthly family income, and fathers' educational attainment—do not significantly affect their perceptions. However, pupils' mothers' educational attainment and parents' occupation were found to significantly influence how they perceive the program's effects on their numeracy development. Furthermore, the findings revealed that the academic performance of Grade Six pupils in Mathematics is not significantly related to the perceived effects of the National Mathematics Program on their numeracy skills. Based on these conclusions, it is recommended that school administrators continuously support the improvement of mathematics instructional programs to strengthen the implementation of the National Mathematics Program. Teachers are encouraged to provide more intervention activities and utilize varied instructional strategies and learning materials to enhance pupils' numeracy skills and academic performance. The implementation of the proposed action plan is also recommended, and future researchers may conduct experimental studies to further examine the effects of the National Mathematics Program..

Compliance with ethical standards

The author declares no conflict of interest. This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors. This study was self-funded. The authors thank the participating university and the nursing students for their contributions

REFERENCES

- Aunio, P. (2021). Early numeracy intervention and its effects on children at risk for mathematical learning difficulties. *International Journal of Early Childhood Education*, 53(2), 145–162.
- Bryant, D. P. (2021). Effects of an early numeracy intervention for students with mathematics difficulties. *Journal of Learning Disabilities*, 54(3), 210–224.
- De Leon, R. T. (2025). Effects of mathematics intervention program on the numeracy skills of Grade Six pupils in public elementary schools in Tanay Sub Office, Division of Rizal (Unpublished master's thesis). Tomas Claudio Colleges.
- Department of Education. (2013). Republic Act No. 10533: Enhanced Basic Education Act of 2013. <https://www.officialgazette.gov.ph>
- Department of Education. (2024). DepEd Order No. 10, s. 2024: Policy guidelines on the implementation of the MATATAG curriculum. Department of Education.
- Enrique, M. L. (2020). Mathdali intervention program and its effectiveness in improving mathematics performance among elementary pupils. *Philippine Journal of Educational Research*, 12(1), 45–58.
- Farooq, M. (2023). Logical thinking and mathematics performance among secondary school students. *International Journal of Educational Research*, 118, 102–110.
- Francisco, J. P. (2025). Numeracy skills and academic performance of Grade VI learners in mathematics (Unpublished research). Barotac Nuevo Central Elementary School.
- Legal, A. R. (2024). Effectiveness of remedial instruction in improving numeracy skills of Grade 7 students. *Philippine Journal of Educational Measurement*, 9(2), 60–75.
- Lopez, K. M. (2023). Mathematics intervention strategies and their relationship to student academic performance. *Asia Pacific Journal of Multidisciplinary Research*, 11(2), 75–86.
- Magtolis, J. D. (2023). Project Renrich: Improving numeracy skills of Grade 5 learners through intervention strategies. *Journal of Educational Innovations*, 8(2), 92–105.
- Marcaida, L. M. (2025). Implementation of the National Mathematics Program and numeracy skill levels of primary learners in Masinloc District. *International Journal of Educational Studies*, 14(1), 33–48.
- Munda, K. L. (2024). Effectiveness of numeracy intervention programs among junior high school students. *International Journal of Mathematics Education Research*, 16(1), 21–37.
- Nasef, H. M. (2021). Mathematics learning program based on mind habits and its effect on academic achievement motivation. *Journal of Educational Psychology and Practice*, 5(2), 55–70.
- Oco, R. P., & Pitogo, L. S. (2023). Numeracy skills and mathematics performance among Grade 1 pupils. *Philippine Journal of Basic Education Research*, 15(1), 88–101.
- Republic of the Philippines. (1987). The 1987 Constitution of the Republic of the Philippines. *Official Gazette*. <https://www.officialgazette.gov.ph>
- Segarino, M. A. (2024). Numeracy intervention activities and test performance of Grade 3 pupils. *Philippine Journal of Educational Management*, 6(1), 70–84.
- Seker, H. (2022). Mathematics education program supported by stories and its effect on early mathematics skills. *Early Childhood Education Journal*, 50(4), 641–650.
- Velez, J. P. (2023). Difficulties and coping strategies in understanding mathematical concepts among college students. *International Journal of Multidisciplinary Research*, 10(3), 115–129.