



“National Mathematics Program (NMP) Influence on Matatag Curriculum: Its Implementation, Barriers, Impacts, and Achievement for An Enhanced Teacher Training Program.”

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Abstract: In response to the need for strengthened mathematics instruction under recent curriculum reforms, this study examined how the National Mathematics Program (NMP) supports the effective implementation of the Matatag Curriculum in public secondary schools. Employing a mixed-method explanatory sequential design, the research involved 388 Grade 7 students from 103 secondary schools in Capiz during SY 2024–2025, supplemented by Focus Group Discussions. Results showed that the overall and top five areas of NMP implementation, barriers, impacts, and achievement were perceived at a moderate level. Significant differences in achievement were found across varying levels of program implementation, barriers, and impacts. Moreover, implementation, barriers, and impacts were significantly interrelated and demonstrated meaningful relationships with student achievement. Regression analysis identified implementation quality, prevailing barriers, and program impact as significant predictors of achievement. Based on these findings, an Enhanced Teacher Training Program was developed to strengthen pedagogical competence, contextualized instruction, assessment strategies, and instructional resource utilization, thereby reducing barriers and improving mathematics achievement under the Matatag Curriculum.

INTRODUCTION

Mathematics education plays a vital role in developing learners’ analytical thinking, reasoning ability, and problem-solving competence, which are essential for participation in modern technological and knowledge-based societies. Globally, educational systems emphasize mathematical literacy as a fundamental competency necessary for lifelong learning and economic productivity. However, international assessments have consistently revealed that many learners struggle with conceptual understanding, mathematical reasoning, and the application of mathematical knowledge to real-world situations (Mullis et al., 2020; OECD, 2019). These persistent challenges highlight the need for effective curriculum reforms and instructional support systems that strengthen mathematics teaching and learning.

In the Philippine educational context, mathematics performance remains a significant concern due to various systemic and contextual challenges, including overcrowded classrooms, disparities in instructional resources, and varying levels of teacher preparedness. Learners’ anxiety toward mathematics and difficulties in conceptual understanding further complicate the delivery of effective instruction (Bernardo et al., 2022). In response to these issues, the Department of Education introduced several curriculum reforms aimed at improving the quality of instruction and strengthening foundational competencies among learners. One of the most recent reforms is the MATATAG Curriculum, which focuses on decongesting subject content, emphasizing mastery of essential competencies, and promoting meaningful and relevant learning experiences (DepEd, 2023a).

Complementing the MATATAG Curriculum is the National Mathematics Program (NMP), a national initiative designed to enhance mathematics education through teacher capacity building, provision of instructional resources, and the promotion of research-informed teaching strategies. The program seeks to strengthen classroom instruction and improve students’ mathematical achievement by supporting teachers in the effective implementation of the revised curriculum (DepEd, 2023a). While the program’s objectives align with national educational goals, the success of any educational reform depends largely on how it is implemented within schools and classrooms. Factors such as limited professional development opportunities, insufficient instructional materials, and varying levels of teacher readiness may hinder the effective delivery of the program (DepEd, 2023b).



Contemporary mathematics education emphasizes learner-centered approaches, problem-solving, and the development of positive attitudes toward mathematics. The MATATAG Curriculum reflects these principles by integrating knowledge, skills, and values through appropriate pedagogical practices and assessment strategies. The National Mathematics Program supports this framework by providing mechanisms intended to improve instructional quality and student learning outcomes. Despite these initiatives, many learners—particularly those in the early years of secondary education—continue to encounter difficulties in mastering mathematical concepts and sustaining engagement in the subject. These concerns underscore the need to systematically examine the implementation and outcomes of national mathematics initiatives.

This study is grounded in several theoretical perspectives that explain the relationship between educational programs and learning outcomes. Constructivist Learning Theory posits that learners actively construct knowledge through interaction, experience, and meaningful engagement with learning tasks (Piaget, 1972; Vygotsky, 1978). From this perspective, effective mathematics instruction requires teaching approaches that encourage exploration, collaboration, and problem-solving. Systems Theory further suggests that educational programs operate within interconnected systems where curriculum, teachers, learners, policies, and resources interact to influence outcomes (Banathy, 1991). In addition, Fullan's Change Theory emphasizes that the success of educational reforms depends largely on the quality of implementation and the ability of institutions to address challenges encountered during the change process (Fullan, 2007). Bronfenbrenner's Ecological Systems Theory also highlights the influence of multiple environmental factors on learning, suggesting that classroom practices are shaped by broader institutional and policy contexts (Bronfenbrenner, 1979).

Guided by these theoretical perspectives, this study examined the implementation of the National Mathematics Program, the barriers affecting its execution, and its impact on learners' mathematics achievement under the MATATAG Curriculum. Specifically, the study focused on Grade 7 students in the Province of Capiz during the School Year 2024–2025. The research assumed that effective program implementation, when supported by appropriate instructional resources and professional development, can enhance teaching practices and improve students' learning outcomes in mathematics.

Although previous studies have explored teacher perceptions and instructional practices related to the MATATAG Curriculum, limited research has examined the combined relationship among program implementation, barriers to implementation, instructional impact, and student achievement within the context of national mathematics reforms. Addressing this gap is important in order to better understand how large-scale educational programs influence classroom instruction and learning outcomes.

Thus, this study aimed to analyze the influence of the National Mathematics Program on the MATATAG Curriculum by examining its level of implementation, the barriers encountered during its execution, its impact on mathematics learning, and the achievement of competencies among Grade 7 students. The findings of the study are expected to provide empirical evidence that may guide policymakers, curriculum developers, school administrators, and mathematics educators in strengthening teacher professional development and improving the implementation of national mathematics initiatives. Furthermore, the results may serve as the basis for the development of an enhanced teacher training program that supports the effective delivery of mathematics instruction under the MATATAG Curriculum.

METHODOLOGY

Research Design

This study employed a mixed-methods sequential explanatory design to examine the implementation of the National Mathematics Program (NMP) and its barriers, impacts, and influence on the achievement of mathematical competencies under the MATATAG Curriculum among Grade 7 learners. In this approach, quantitative data were collected and analyzed first, followed by qualitative data collection to further explain and enrich the initial findings. The integration of quantitative and qualitative approaches provided a more comprehensive understanding of the research problem by combining statistical evidence with participants' perspectives.

The quantitative component employed a survey–correlational design to examine relationships among NMP implementation, barriers encountered during implementation, program impact, and students' competency achievement. Correlational analysis enabled the researcher to examine the extent to which these variables were associated and how they collectively influenced students' mathematics performance.

To complement the quantitative findings, qualitative data were gathered through **Focus Group Discussions (FGDs)**. This approach enabled the researcher to explore students' experiences, perceptions, and insights regarding the

implementation of the National Mathematics Program within the MATATAG Curriculum. The qualitative component provided deeper explanations of patterns identified in the quantitative results.

Participants

The respondents of the study consisted of **388 Grade 7 students** selected from a total population of **12,889 learners** enrolled in public secondary schools in the Province of Capiz during the School Year 2024–2025. The sample size was determined using the **Taro Yamane formula** with a five percent margin of error.

Participants were selected using **proportionate stratified sampling** to ensure that students from the two school divisions in the province were adequately represented. The Capiz Division contributed **321 respondents (82.73%)**, while the Roxas City Division contributed **67 respondents (17.27%)**, resulting in a total sample of 388 participants.

Within each stratum, respondents were selected using **systematic random sampling**. Lists of Grade 7 students were obtained from class advisers, and every tenth student from the list was selected to participate in the survey. This method ensured a representative and unbiased selection of respondents from the population.

For the qualitative component of the study, **10 Grade 7 students from various public secondary schools in the province of Capiz** participated in a Focus Group Discussion to provide additional insights regarding their experiences with the implementation of the National Mathematics Program.

Research Instruments

Several instruments were used to gather the necessary data for the study.

Implementation of the National Mathematics Program

The level of implementation of the National Mathematics Program was measured using an **adapted checklist questionnaire comprising 10 items assessing the extent to which** the program was applied in mathematics instruction. Responses were measured using a **five-point Likert scale**, ranging from strongly disagree (1) to strongly agree (5). Mean scores were interpreted using the following descriptive levels: very high, high, moderate, low, and very low.

Barriers to the Implementation of the National Mathematics Program

Barriers encountered in the implementation of the program were measured using a **10-item questionnaire adapted from the NMP implementation assessment**. The same five-point Likert scale was used to measure respondents' perceptions of the degree to which these barriers affected mathematics instruction.

Impact of the National Mathematics Program

The impact of the NMP on students' academic performance was assessed through the **students' mathematics grades in the first and fourth grading periods**. These grades served as indicators of learning outcomes and were categorized using the Department of Education's standard grading interpretation levels.

Achievement of Mathematical Competencies

Students' achievement of competencies was measured using a researcher-developed mathematics achievement test aligned with the MATATAG Curriculum. The test covered key content areas including Measurement and Geometry, Number and Algebra, and Data and Probability, as well as problem-solving and critical-thinking tasks. Scores obtained from the test were interpreted using established competency levels ranging from very low to very high.

Focus Group Discussion Guide

For the qualitative component, a **researcher-developed Focus Group Discussion guide** was used to gather participants' perspectives regarding the implementation of the NMP, the challenges they encountered, and their experiences in learning mathematics under the MATATAG Curriculum.

Data Gathering Procedures

Before the study was conducted, permission to administer the research instruments was obtained from the appropriate educational authorities. Approval was secured from the Graduate School, after which formal letters were sent to school heads and class advisers requesting permission to survey Grade 7 students in participating public secondary schools in the province of Capiz.

After obtaining the necessary approvals, the questionnaires were personally administered by the researcher to the selected participants. The researcher explained the purpose of the study and provided instructions on how to complete the

instruments. Completed questionnaires were collected immediately to ensure completeness and accuracy of the responses.

The quantitative data gathered from the questionnaires and achievement tests were encoded and organized into a digital database. The dataset was then processed using the **Statistical Package for the Social Sciences (SPSS)** for statistical analysis.

For the qualitative component, a Focus Group Discussion involving ten selected students was conducted through an online platform. The session was facilitated by the researcher using a structured discussion guide. With the participants' consent, the discussion was recorded to ensure accurate documentation. The recorded data were subsequently transcribed and analyzed to identify recurring themes and insights related to the study.

Data Analysis

The quantitative data were analyzed using both descriptive and inferential statistical techniques. **Frequency counts and percentages** were used to describe the distribution of respondents. **Mean and standard deviation** were employed to determine the levels of implementation, barriers, impacts, and achievement of competencies under the National Mathematics Program.

To examine differences among groups, **Analysis of Variance (ANOVA)** was utilized. **Pearson's correlation coefficient (r)** was applied to determine the relationships among the variables, including implementation, barriers, impacts, and achievement of competencies. Furthermore, **multiple regression analysis** was conducted to identify significant predictors of students' achievement of mathematical competencies.

All statistical tests were conducted at a **0.05 level of significance**, which served as the basis for determining whether the relationships or differences observed in the data were statistically significant.

Ethical Considerations

Ethical standards were strictly observed throughout the conduct of the study. Participants were fully informed about the purpose of the research, the procedures involved, and their rights as respondents. Participation in the study was entirely voluntary, and respondents were allowed to withdraw at any stage without any negative consequences. Confidentiality and anonymity were ensured by protecting participants' identities and securely storing all collected data. Only aggregated data were reported in the presentation of the results to safeguard the privacy of the respondents.

RESULTS

This section presents the findings of the study on the implementation, barriers, impacts, and achievement of competencies under the National Mathematics Program (NMP) among Grade 7 students in the Province of Capiz.

Implementation of the National Mathematics Program

Table 1 presents the mean and standard deviation of the implementation of the National Mathematics Program (NMP) as perceived by Grade 7 students. The overall mean score was **3.05 (SD = 0.80)**, which indicates a **moderate level of implementation**.

Table 1
Mean and Standard Deviation of Implementation of the National Mathematics Program (NMP) as Perceived by Grade 7 Students

Variable	M	SD	Verbal Interpretation
Overall Implementation of NMP	3.05	0.80	Moderate
Math lessons help understand real-life problems	3.10	0.99	Moderate
Activities reflect NMP programs/projects	3.09	1.00	Moderate
Instructional materials are helpful and understandable	3.05	0.99	Moderate
Teacher uses different strategies to make math easier	3.05	0.99	Moderate
Lessons this year are better and more enjoyable	3.05	0.99	Moderate

Note. Scale: 4.21–5.00 = Very High, 3.01–4.20 = High, 2.61–3.00 = Moderate, 1.81–2.60 = Low, 1.00–1.80 = Very Low. Among the specific indicators, the highest mean score was obtained by the item stating that mathematics lessons help students understand real-life problems better (M = 3.10, SD = 0.99). This was followed by the item indicating that

classroom activities were aligned with the NMP programs or projects ($M = 3.09$, $SD = 1.00$). The remaining indicators also obtained similar mean scores of **3.05**, including the use of instructional materials such as modules and worksheets, the application of different teaching strategies by teachers, and the perception that mathematics lessons during the school year were more enjoyable compared to previous years.

Overall, the findings suggest that the implementation of the National Mathematics Program was **partially achieved**, indicating that while the program had been introduced and practiced in mathematics classes, its full implementation had not yet been consistently realized across all classrooms.

Barriers to the National Mathematics Program

Table 3 presents the mean and standard deviation of the barriers encountered in the implementation of the National Mathematics Program. The results showed an overall mean of **3.16 (SD = 0.87)**, indicating a **moderate level of barriers**.

Table 2
 Mean and Standard Deviation of Barriers to the National Mathematics Program (NMP)

Variable	M	SD	Verbal Interpretation
Overall Barriers to NMP	3.16	0.87	Moderate
Teacher cannot give enough individual attention	3.22	1.09	Moderate
Hard to ask questions when not understanding	3.22	1.10	Moderate
Lessons are hard to follow due to pace	3.17	1.11	Moderate
Nervous or scared answering math questions	3.17	1.11	Moderate
Not enough time in school day for all lessons	3.17	1.12	Moderate

Note. Scale: 4.21–5.00 = Very High, 3.01–4.20 = High, 2.61–3.00 = Moderate, 1.81–2.60 = Low, 1.00–1.80 = Very Low.

The highest mean score was observed for two indicators: students feeling that teachers were unable to provide enough individual attention ($M = 3.22$, $SD = 1.09$) and students experiencing difficulty asking questions when they did not understand mathematical topics ($M = 3.22$, $SD = 1.10$). Other indicators also showed moderate levels, including difficulty following lessons due to the pace of instruction ($M = 3.17$, $SD = 1.11$), feeling nervous when answering mathematics questions in class ($M = 3.17$, $SD = 1.11$), and insufficient time to complete mathematics lessons and activities ($M = 3.17$, $SD = 1.12$).

These findings indicate that while some barriers were present during the implementation of the program, they were **moderately managed but still posed notable challenges** to the effective delivery of mathematics instruction.

Impact of the National Mathematics Program

Table 3 presents the level of impact of the National Mathematics Program on students’ mathematics performance. The results revealed an overall mean score of **82.07 (SD = 4.65)**, which corresponds to a **moderate level of impact**.

Table 3
 Mean and Standard Deviation of Impacts of the National Mathematics Program (NMP)

Variable	M	SD	Verbal Interpretation
Impacts of NMP on student performance	82.07	4.65	Moderate

Note. Scale: 90–100 = Very High, 85–89 = High, 80–84 = Moderate, 75–79 = Low, <75 = Very Low.

This result indicates that students demonstrated a **satisfactory understanding of mathematical concepts and skills** under the NMP. However, the findings also suggest that although the program contributed positively to students’ learning experiences, the overall impact remained moderate, indicating opportunities for further enhancement in instructional delivery and program implementation.

Achievement of Competencies Under the National Mathematics Program

Table 4 presents the mean and standard deviation of students’ achievement of competencies under the National Mathematics Program. The results showed an overall mean score of **20.00 (SD = 5.98)**, which falls within the **moderate level of achievement**.

Table 4

Mean and Standard Deviation of Achievement of Competencies under the National Mathematics Program (NMP)

Variable	M	SD	Verbal Interpretation
Achievement of competencies	20.00	5.98	Moderate

Note. Scale: 29.61–37.00 = Very High, 22.21–29.60 = High, 14.81–22.20 = Moderate, 7.41–14.80 = Low, 0–7.40 = Very Low.

This finding indicates that Grade 7 students demonstrated **satisfactory mastery of mathematical concepts and competencies**, although their performance had not yet reached the higher levels of mastery expected under the program.

Differences in Achievement Across Levels of Implementation

Table 5 presents the analysis of variance (ANOVA) examining differences in students’ achievement across levels of NMP implementation. The results revealed a **statistically significant difference** in achievement among the groups, with a computed F-value of 203.357 (p = 0.000).

Table 5
 ANOVA for Achievement of Competencies Across Levels of NMP Implementation

Source	SS	df	MS	F	p
Between Groups	9422.46	4	2355.615	203.357*	0.000
Within Groups	4436.537	383	11.584	–	–
Total	13858.997	387	–	–	–

Note. *p < 0.05 indicates statistical significance.

Since the p-value was lower than the **0.05 level of significance**, the null hypothesis was rejected. This indicates that students’ mathematics achievement significantly varied according to the level of implementation of the National Mathematics Program.

Differences in Achievement Across Levels of Barriers

Table 6 presents the ANOVA results examining differences in students’ achievement across varying levels of barriers encountered during the implementation of the NMP. The results revealed a **significant difference**, with an F-value of 164.877 (p = 0.000).

Table 6
 ANOVA for Achievement of Competencies Across Levels of Barriers

Source	SS	df	MS	F	p
Between Groups	8767.427	4	2191.857	164.877*	0.000
Within Groups	5091.57	383	13.294	–	–
Total	13858.997	387	–	–	–

This indicates that the degree of barriers experienced during program implementation significantly influenced students’ mathematics achievement.

Differences in Achievement Across Levels of Program Impact

Table 7 presents the ANOVA results examining differences in students’ achievement across levels of perceived program impact. The analysis revealed a **significant difference**, with a computed F-value of 149.812 (p = 0.000).

Table 7
 ANOVA for Achievement of Competencies Across Levels of NMP Impacts

Source	SS	df	MS	F	p
Between Groups	8455.077	4	2113.769	149.812*	0.000
Within Groups	5403.921	383	14.109	–	–
Total	13858.997	387	–	–	–

The results indicate that the level of perceived impact of the National Mathematics Program significantly influenced students’ achievement of mathematical competencies.

Relationships Among Implementation, Barriers, Impacts, and Achievement

Table 8 presents the results of the **Pearson r correlation analysis** among the variables of implementation, barriers, impacts, and achievement.

Table 8
 Pearson Correlation Among Implementation, Barriers, Impacts, and Achievement

Variables	r	p
Implementation ↔ Barriers	-0.565*	0.000
Implementation ↔ Impacts	0.868*	0.000
Implementation ↔ Achievement	0.705*	0.000
Barriers ↔ Impacts	-0.624*	0.000
Barriers ↔ Achievement	-0.819*	0.000
Impacts ↔ Achievement	0.817*	0.000

The findings revealed a **strong positive correlation between implementation and program impact (r = 0.868, p = 0.000)**, indicating that higher levels of implementation were associated with greater positive impacts of the program. A **strong negative relationship was observed between barriers and achievement (r = -0.819, p = 0.000)**, suggesting that increased barriers were associated with lower student performance.

Similarly, **impacts and achievement showed a strong positive relationship (r = 0.817, p = 0.000)**, indicating that greater program impact corresponded with higher levels of student achievement.

Predictors of Achievement of Competencies

Table 9 presents the results of the **multiple regression analysis** examining the predictive influence of implementation, barriers, and program impact on students’ achievement.

Table 9
 Multiple Regression Predicting Achievement from Implementation, Barriers, and Impacts

Predictor	B	β	t	p
Constant	-5.682	-	-2.684	0.008
Implementation	3.587	0.479	25.305*	0.000
Barriers	-2.824	-0.409	-23.780*	0.000
Impacts	0.289	0.224	11.219*	0.000

Note. *p < 0.05 indicates significance.

The results revealed that implementation of the National Mathematics Program significantly predicted student achievement (B = 3.587, β = 0.479, t = 25.305, p = 0.000). Similarly, barriers to the program demonstrated a significant negative influence on achievement (B = -2.824, β = -0.409, t = -23.780, p = 0.000). The impact of the program also showed a significant positive contribution to achievement (B = 0.289, β = 0.224, t = 11.219, p = 0.000).

These findings indicate that implementation, barriers, and impacts significantly predicted students’ achievement of competencies in mathematics under the National Mathematics Program.

DISCUSSION

The present study examined the influence of the National Mathematics Program (NMP) on the implementation of the Matatag Curriculum, focusing on its implementation, barriers, impacts, and students’ achievement of mathematical competencies among Grade 7 learners in the Province of Capiz during the School Year 2024–2025. The findings revealed that overall implementation, barriers, impacts, and students’ achievement were generally moderate, indicating that although the program had been introduced and practiced in classrooms, its full potential had not yet been realized.



The moderate level of implementation suggests that the essential components of the National Mathematics Program were present in classroom instruction, but certain aspects still required strengthening. This implies that while teachers were applying the program in their teaching practices, consistent application and deeper integration with the Matatag Curriculum may still need further enhancement. Effective program implementation often requires sustained teacher training, instructional resources, and continuous monitoring to ensure that intended objectives are achieved.

Similarly, the moderate level of barriers indicates that challenges existed during the implementation of the program. These barriers may include instructional constraints, limited teaching resources, varying levels of teacher preparedness, and other contextual factors that influence the delivery of mathematics instruction. The presence of such barriers suggests that institutional support and collaborative problem-solving among educators are essential to improve program effectiveness.

The findings also showed that the impact of the National Mathematics Program on teaching and learning was perceived at a moderate level. This indicates that the program contributed positively to the teaching and learning process, yet the magnitude of its influence may still depend on several contextual and operational factors. The results suggest that strengthening the alignment between program objectives, classroom practices, and teacher competencies may enhance the overall impact of the program.

Furthermore, the achievement of competencies among Grade 7 learners was found to be moderate. This suggests that students were able to attain the essential learning competencies, although there remains considerable opportunity to further enhance their mathematical understanding and performance. Improving instructional delivery, integrating contextualized teaching strategies, and providing appropriate academic support may help strengthen students' conceptual learning and problem-solving skills.

The results of the inferential analysis revealed significant differences in students' achievement across varying levels of implementation, barriers, and program impact. These findings indicate that the quality and consistency of program implementation, the presence or absence of barriers, and the strength of instructional influence all play important roles in shaping students' learning outcomes. Schools where the program was implemented more effectively tended to demonstrate better student performance.

Moreover, the study identified significant relationships among program implementation, barriers, impacts, and students' achievement of competencies. These findings highlight the interconnected nature of these variables, suggesting that successful mathematics education initiatives require a balanced approach that addresses instructional practices, program support systems, and learner engagement simultaneously.

Regression analysis further revealed that implementation, barriers, and impacts of the National Mathematics Program served as significant predictors of students' achievement of competencies. This indicates that improvements in program delivery, reduction of instructional barriers, and stronger instructional influence can meaningfully contribute to enhanced academic outcomes in mathematics.

The qualitative findings from the Focus Group Discussion supported the quantitative results by providing deeper insights into students' experiences with the program. Participants emphasized the importance of clear explanations, engaging teaching strategies, and supportive classroom environments in improving their understanding of mathematical concepts. These insights reinforced the importance of strengthening teacher competence and instructional practices in order to maximize the effectiveness of the National Mathematics Program.

Based on the findings, an **Enhanced Teacher Training Program** was proposed to reinforce the effective implementation of the National Mathematics Program. The program aims to equip teachers with appropriate pedagogical strategies, improve instructional delivery, and address the challenges identified in the study. By strengthening teacher competence and promoting learner-centered teaching approaches, the proposed program seeks to improve students' learning experiences and achievement in mathematics while supporting the broader objectives of the Matatag Curriculum.

CONCLUSION

Based on the findings of the study, several conclusions were drawn.

The National Mathematics Program was generally implemented in participating schools, indicating that the program had established a presence in classroom instruction. However, the moderate level of implementation suggests that further strengthening and consistent application of its components are necessary to maximize its effectiveness.

Barriers encountered during program implementation influenced both teaching practices and learning processes. These challenges highlight the need for improved instructional support, adequate resources, and sustained professional development for teachers.

The program demonstrated a positive influence on classroom instruction and learning experiences. Nevertheless, the overall effectiveness of the National Mathematics Program was moderated by contextual factors, including teacher preparedness and the availability of instructional support.

Students' achievement of mathematical competencies indicated that essential learning outcomes were attained, though opportunities remain to further improve students' conceptual understanding and academic performance in mathematics. Significant differences in student achievement across varying levels of implementation, barriers, and impacts confirm that the effectiveness of educational programs depends on the quality of their execution. Schools that demonstrated stronger program implementation and fewer barriers tended to produce more favorable learning outcomes.

The relationships identified among implementation, barriers, impacts, and achievement emphasize that these factors operate collectively in influencing students' academic performance. Successful program implementation therefore requires coordinated efforts among teachers, school leaders, and educational stakeholders.

The study also established that implementation, barriers, and impacts served as significant predictors of students' achievement of competencies. These findings underscore the importance of strengthening instructional practices and addressing program challenges to improve mathematics learning outcomes.

Overall, the study affirms that the National Mathematics Program contributes positively to mathematics instruction and learning. However, its effectiveness largely depends on sustained teacher development, adequate instructional support, and consistent implementation aligned with the goals of the Matatag Curriculum.

IMPLICATIONS AND RECOMMENDATIONS

Based on the study's findings and conclusions, several recommendations are proposed to enhance the implementation and effectiveness of the National Mathematics Program.

Schools may organize targeted professional development programs to strengthen teachers' instructional strategies, classroom management techniques, and the effective integration of the National Mathematics Program into daily mathematics instruction.

Teachers may collaborate in identifying practical solutions to address challenges encountered during program implementation. Collaborative lesson planning, professional learning communities, and peer mentoring may help reduce instructional barriers and improve teaching practices.

To improve students' achievement of mathematical competencies, teachers may adopt innovative and contextualized teaching approaches that promote active student engagement and deeper conceptual understanding.

School administrators may establish systematic monitoring and feedback mechanisms to ensure that instructional practices remain aligned with the objectives of the National Mathematics Program and the Matatag Curriculum.

Schools may also implement structured academic support programs, such as remedial instruction, peer tutoring, and differentiated learning strategies, to address diverse learner needs and strengthen students' mastery of mathematical concepts.

To reduce the impact of implementation barriers, school leaders may prioritize resource allocation, instructional support, and continuous mentoring for teachers, particularly those who require additional professional guidance.

Furthermore, teachers may engage in reflective teaching practices and regularly assess instructional effectiveness in order to adapt teaching strategies according to students' learning needs.

The proposed **Enhanced Teacher Training Program** may serve as a sustainable professional development initiative that provides continuous training, coaching, and collaborative learning opportunities for mathematics teachers. This

program may strengthen teachers' instructional competence, improve classroom practices, and support the effective implementation of the National Mathematics Program.

Future researchers may also explore additional variables that influence mathematics learning outcomes, such as students' attitudes toward mathematics, teacher instructional beliefs, and the role of technology integration in mathematics education.

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