

# Utilization of Rapid Mathematics Assessment (Rma): A Developmental-Based Education Strategies of Deped

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## ABSTRACT

This study examined the implementation of the Rapid Mathematics Assessment (RMA) as a developmental-based strategy to improve mathematics proficiency among Grades 1 to 3 learners in public elementary schools in the Mercedes District, Division of Camarines Norte. It aimed to determine learners' proficiency levels based on RMA results, identify instructional strategies used by primary teachers, assess changes in proficiency before and after the assessment, examine challenges encountered in teaching mathematics, and propose an intervention to enhance learner performance. Developmental-based education refers to an instructional approach that aligns teaching strategies with learners' cognitive, social, and emotional developmental stages. It emphasizes scaffolded learning, active engagement, and differentiated support based on learners' readiness levels. This concept is grounded in constructivist theory, which posits that learners actively construct knowledge through experience and interaction, and in Vygotsky's Zone of Proximal Development (ZPD), which highlights the importance of guided support in moving learners from assisted to independent performance. Within this framework, the Rapid Mathematics Assessment (RMA) serves not merely as an evaluative tool but as a diagnostic mechanism that informs scaffolded intervention and targeted instruction. A quantitative approach using a descriptive-comparative research design was employed. Data were collected through document analysis and survey questionnaires administered to 109 Grades 1 to 3 teachers. The RMA covered 3,787 pupils in the pre-test and 3,729 pupils in the post-test. Descriptive statistics and a paired sample t-test were used to analyze proficiency levels, instructional strategies, and changes in learner performance. Findings revealed an overall improvement in mathematics proficiency across grade levels. The proportion of learners in the Intervention Category decreased, while those in the Consolidation and Enhancement Categories increased, indicating gains in foundational and higher-order mathematical skills. Teachers consistently employed diverse instructional strategies, particularly group activities, direct instruction, differentiated instruction, visual aids, collaborative learning, and educational technology. However, the paired sample t-test indicated no statistically significant difference between pre-test and post-test results, suggesting relatively stable overall performance. Key challenges identified included limited parental support, inadequate educational technology, outdated learning materials, low learner engagement, large class sizes, and weak foundational skills. Based on these findings, a Mathematics Proficiency Implementation Plan (MPIP) was proposed to address identified gaps and promote sustained improvement in mathematics performance.

**Keywords:** Rapid mathematics assessment, developmental-based education, intervention, mathematics proficiency, intervention

## INTRODUCTION

The development of basic numeracy skills among early-grade Filipino learners is a pressing concern in the Philippine education system, particularly considering recent assessments and reports that highlight significant challenges in this area. Numeracy, which encompasses the ability to understand and work with numbers, is foundational for academic achievement and essential for everyday problem-solving. The 2022 Programme for International Student Assessment (PISA) results and the Education Commission's EDCOM 2 report provide critical insights into the current state of numeracy education in the Philippines, revealing both the challenges faced by learners and the opportunities for improvement.

The 2022 PISA results indicated that Filipino students continue to struggle with basic numeracy skills compared to their peers in other countries. The assessment revealed that a significant percentage of Filipino learners did not meet the minimum proficiency level in mathematics, which raises concerns about their preparedness for higher education and the workforce (OECD, 2022). The findings highlighted the need for urgent reforms in the teaching and learning of mathematics, particularly in the early grades, where foundational skills are established. This underscores the importance of targeted interventions that can effectively address the gaps in numeracy skills among young learners in the Philippines. On the other hand, the EDCOM 2 report provided a comprehensive analysis of the educational landscape in the Philippines, emphasizing the need for a more integrated approach to teaching numeracy. The report called for the development of a curriculum that not only focuses on mathematical concepts but also incorporates real-life applications to make learning more relevant and engaging for students.

Furthermore, to address the critical need for improved literacy and numeracy skills among students in Region V, the Department of Education (DepEd) launched the "Bawat Batang Bicolano Bihasang Bumasa at Bumilang" (6Bs) program (Regional Memo 786, s. 2023). This initiative is aimed at equipping young learners, particularly those in Grades 1 to 3, with the foundational skills necessary for their academic success. Recognizing the challenges posed by educational disruptions, the program emphasizes a systematic approach to enhance reading and counting abilities, ensuring that every child in the Bicol region can succeed academically.

In the Division of Camarines Norte, school heads regularly conduct classroom observations to assess learners' strengths and weaknesses in Mathematics and evaluate teachers' instructional competencies as bases for providing technical assistance and support. Despite the implementation of various school-based interventions, challenges persist that hinder the effective delivery of the mathematics program. These concerns are reflected in the low performance of Grade 3 learners in the Early Language, Literacy, and Numeracy Program (ELLNA), where learners obtained an overall mean proficiency score of 45.13 across key areas such as counting, estimating, calculating, measuring, and problem-solving. Of the 890 test takers, only 1% were highly proficient, while the majority were classified as nearly proficient or low proficient. These results indicate that many Grade 3 learners continue to experience difficulties in Mathematics, highlighting the need for more focused and systematic strategies to improve early numeracy skills. This situation prompted the researcher to conduct a study on the implementation of the Rapid Mathematics Assessment (RMA) as a developmental-based education strategy of the Department of Education to enhance mathematics proficiency among Grades 1 to 3 learners in public elementary schools in the Mercedes District, Division of Camarines Norte.

This study aimed to determine the implementation of Rapid Mathematics Assessment (RMA) as one of the developmental-based education strategies of DepEd to improve mathematics proficiency in Grades 1 to 3 in public elementary schools in Mercedes District in the Division of Camarines Norte. Specifically, it answered the following subproblems: 1) What are the mathematics proficiency levels of Grades 1 to Grade 3 based on the result of the Rapid Mathematics Assessment conducted in Mercedes District in the Division of Camarines Norte? 2) What are the strategies utilized by primary teachers in teaching mathematics to Grades 1 to 3 learners to improve their mathematics proficiency? Moreover, 3) Is there a significant change between the mathematics proficiency level of Grades 1 to 3 before and after the conduct of rapid mathematics assessment? 4) What are the challenges encountered by the primary teachers in improving the mathematics proficiency of Grades 1 to Grades 3 learners? 5) What intervention may be proposed to enhance mathematics proficiency in Grades 1 to 3 in public elementary schools in Mercedes District in the Division of Camarines Norte?

## METHODOLOGY

The researcher utilized a quantitative method, employing descriptive-comparative design which is useful in understanding the connections between different factors and can provide valuable insights. Descriptive-comparative design is a non-experimental research design used to describe existing characteristics or conditions and compare them across two or more groups without manipulating any variables. The researcher observes and analyzes differences or similarities and changes among groups as they naturally occur, often to determine whether statistically significant differences or significant change exist based on pre-existing variables (Creswell and Creswell, 2020).

The descriptive method was relevant in describing the mathematics proficiency levels of Grades 1 to Grade 3 based on the result of the Rapid Mathematics Assessment conducted in Mercedes District in the Division of

Camarines Norte, the strategies utilized by primary teachers in teaching mathematics to Grades 1 to 3 learners to improve their mathematics proficiency and the challenges encountered by the primary teachers in improving the mathematics proficiency of Grades 1 to Grades 3 learners. A paired samples t-test was conducted to determine whether there were significant differences in students' performance across the pre-test and post-test phases of the intervention, consolidation, and enhancement activities.

The respondents of this study were composed of 38 Grade 1 teachers, 37 Grade 2 teachers and 34 Grade 3 teachers respectively with a grand total of 109 teachers from the 19 public elementary schools in Mercedes District in the Division of Camarines Norte. They were the teachers with regular permanent plantilla position in the public elementary schools in the Division of Camarines Norte stationed to the 19 public elementary schools in Mercedes District. These respondents reflected attributes relevant to the purpose of the study such as they handled Grades 1, 2 and 3 classes, adopted RMA in their classes, utilized RMA results in conducting mathematics interventions in their respective classes.

This study utilized the standard Rapid Mathematics Assessment (RMA) Tool, document analysis, and a survey questionnaire checklist to collect valid and reliable data. The RMA Tool measured the mathematics proficiency of Grades 1 to 3 learners based on the Most Essential Learning Competencies (MELCs) and categorized learners into Intervention, Consolidation, and Enhancement levels using pre- and post-test results for School Year 2023–2024. Document analysis supported the evaluation of learners' proficiency based on these results, while the survey questionnaire identified the instructional strategies used by Grades 1 to 3 teachers, aligned with DepEd Order No. 42, s. 2017 or the Philippine Professional Standards for Teachers (PPST). The integration of these instruments enabled data triangulation, enhancing the validity, reliability, and overall rigor of the study's findings.

Data collected for each main objective of the study were tabulated, computed, statistically treated, analyzed, and interpreted using appropriate statistical tools. Frequency count and ranking were used to determine the mathematics proficiency levels of Grades 1 to 3 based on the Rapid Mathematics Assessment results. Weighted mean was employed to analyze the teaching strategies utilized by primary teachers and the challenges they encountered in improving learners' mathematics proficiency. To determine whether there was a significant change in learners' proficiency levels before and after the administration of the RMA, a paired t-test was used, as it is appropriate for comparing related measurements from the same group. All inferential statistical analyses were computed using IBM SPSS Statistics version 21.0.

## RESULTS AND DISCUSSION

This part presents the results of the data analysis in response to the problems covered by this study.

### **Mathematics Proficiency Levels of Grades 1 to Grade 3 based on the result of the Rapid Mathematics Assessment**

Rapid Mathematics Assessment (RMA) is one of the major initiatives of DepEd to address the numeracy gaps among Grades 1 to 3 learners and is part of the National Learning Recovery Program (NLRP). This is the nationwide assessment instituted to measure learners' foundational mathematical skills and assess the exact gaps in learning early in the academic year. The RMA quickly profiles each student in terms of mathematical proficiency, from Highly Proficient to Low Proficient, and through this, provides the necessary baseline data for data-driven decision-making to be employed by educators.

Table 1 presents a comprehensive overview of pupil performance on the Rapid Mathematics

Assessment (RMA) for the School Year 2023-2024 across 19 elementary schools in the Mercedes District. The assessment categorized pupils into three skill levels namely Intervention, Consolidation and Enhancement. This analysis compares the pre-test and post-test results to evaluate changes in pupil proficiency over the academic year.

The observed decline of 58 learners (1.53%) in participation during the Rapid Mathematics Assessment (RMA) post-test is minimal and does not compromise the integrity or effectiveness of the assessment. This decrease is

primarily attributed to external, non-instructional factors reported by Schools (see appendix H), such as learner absenteeism, transfers, health-related concerns, or family-related circumstances. These factors are beyond the control of classroom instruction and assessment implementation. Given that the reduction represents a very small proportion of the total sample and was not caused by flaws in the assessment design, administration, or instructional interventions, it is therefore not indicative of assessment failure. Instead, the RMA post-test results remain valid and reliable for evaluating learners’ mathematics proficiency, as the assessment continued to capture data from the vast majority of the target population. The slight decrease in participation does not materially affect the comparability of the pre-test and post-test results nor the overall conclusions of the study.

The most notable finding in terms of overall RMA performance of Mercedes District is the substantial decrease in the number of pupils in the Intervention category, which resulted in a reduction of 402 (18.03%) pupils, from 2,229 in the pre-test to 1,827 in the post-test. This change suggests that a significant number of pupils who were initially struggling with foundational mathematical skills demonstrated considerable improvement. Meanwhile, both higher proficiency categories, Consolidation and Enhancement, experienced a notable increase in the number of pupils. The Consolidation category increased by 156(19.42%) pupils (from 803 to 959), while the Enhancement category resulted in an even more significant increase of 188 (24.90%) pupils (from 755 to 943). The top five performing schools are identified based on the largest decrease in the Intervention category and the largest increase in the Enhancement category. The highest improvement observed showed a decrease of 161 learners needing intervention alongside an increase of 135 learners in the enhancement category. These improvements were largely attributed to the use of varied and targeted instructional strategies, particularly the combination of direct instruction, one-on-one support, and small-group teaching, highlighting the importance of diversified pedagogy in the effective implementation of the RMA.

Table 1 Mathematics Proficiency Levels of Grades 1 To Grade 3 Learners Before and After the Conduct of Rapid Mathematics Assessment

Mathematics Proficiency Level	Pre-test	Post-test	Increase	Decrease
Intervention	2229	1827	-	402 (18.03%)
Consolidation	803	959	156 (19.42%)	-
Enhancement	755	943	188 (24.90%)	-
Total	3787	3729	-	58(1.53%)

The significant factor behind the enhanced performance of School was its mastery of differentiated instruction among teachers. School asserted that the deliberate strategy of adjusting the content or what students learn, the process or how students learn, or the product or how students demonstrate their learning was instrumental in enabling them to meet the varied and diverse needs of their learners. This practice moved beyond a one-size-fits-all approach, ensuring that instruction was perfectly matched to each learner’s readiness level, learning profile, and interests. Through this practice, Schools was able to give focused support to learners who were struggling, while also providing enrichment and advanced activities for high-performing students. As a result, learners progressed at appropriate levels, leading to improved and more equitable performance outcomes in the RMA implementation.

These findings are supported by UNESCO (2019), which emphasizes that the RMA, as a diagnostic tool, provides reliable, context-specific data that enables educators to identify learning needs and implement targeted interventions. The observed improvements in pupil performance validate UNESCO’s argument that data-driven approaches are essential for enhancing educational outcomes and promoting equity in early-grade education. The results also align with broader research on responsive teaching. The notable gains in learners’ foundational mathematics skills support Clements and Sarana (2020), who highlight the importance of targeted and tailored instruction for developing early numeracy. Additionally, the study’s positive outcomes echo findings from

Bañados et al. (2022) and the directives of Regional Memorandum No. 104, s. 2022, demonstrating that strategically implemented mathematics interventions can effectively strengthen the basic numeracy skills of early-grade pupils in the Philippines.

### Strategies Utilized by Primary Teachers in Teaching Mathematics

Table 2 indicates that primary teachers employ a broad range of instructional strategies in teaching Mathematics, with an overall weighted mean of 4.02, interpreted as Highly Utilized (HU). This reflects a deliberate and consistent effort to address diverse learner needs through varied, developmentally responsive instructional approaches.

Strategies categorized as Very Highly Utilized (VHU) include group activities, direct instruction, differentiated instruction, visual aids, collaborative learning, and the use of educational technology. The strong utilization of direct instruction highlights the continued relevance of structured, teacher-led approaches in early mathematics education. Consistent with Rosenshine’s (2012) Principles of Instruction, effective teaching involves explicit modeling, guided practice, systematic questioning, and immediate feedback—practices that are essential for strengthening foundational numeracy skills. Similarly, structured approaches such as the concrete–representational–abstract (CRA) sequence (Obafemi, 2023) support conceptual understanding through carefully sequenced instruction.

Highly Utilized (HU) strategies such as hands-on learning, formative assessment, interactive games, peer tutoring, personalized learning plans, real-world applications, one-on-one teaching, small group instruction, problem-based learning, concept mapping, flipped classroom approaches, and math journaling reflect learnercentered and constructivist principles. These strategies emphasize active engagement, scaffolding, and contextualized learning experiences.

The frequent use of small group instruction and individualized support demonstrates teachers’ responsiveness to learners’ varied readiness levels. Research supports the effectiveness of grouping learners based on ability to provide targeted remediation and enrichment (Oktaviyanti et al., 2022). This targeted support is particularly relevant for learners from socio-economically disadvantaged contexts (Lavador et al., 2024).

Hands-on learning and manipulatives further reinforce conceptual development by allowing learners to construct meaning through exploration and play (Clements & Sarama, 2020). Meanwhile, collaborative activities and peer-assisted learning promote confidence and engagement in numeracy tasks (Gilligan-Lee et al., 2023).

Although less frequently implemented, the flipped classroom approach aligns with recent findings that technology-supported instruction can enhance mastery of basic mathematical skills when resources are available (Cañada et al., 2024). However, access limitations in geographically isolated schools may constrain its broader application.

Overall, the findings demonstrate that teachers integrate structured explicit instruction with learnercentered and differentiated strategies. This balanced instructional approach aligns with developmental-based education principles and supports both foundational skill mastery and higher-order mathematical thinking during RMA implementation.

Table 2

Indicators	Weighted Mean	Interpretation (Int.)
Group activities	4.51	VHU
Direct instruction	4.40	VHU
Differentiated instruction	4.39	VHU
Visual aids (e.g., diagrams, charts, etc.)	4.27	VHU
Collaborative learning activities	4.24	VHU
Use of educational technology	4.22	VHU
Hands-on learning/manipulatives	4.19	HU
Formative assessments to identify struggling students	4.15	HU
Interactive games	4.14	HU
Differentiated instruction (varied lessons to diverse student needs)	4.07	HU
Peer tutoring	4.06	HU
Storytelling or math-related activities	3.99	HU

Personalized learning plans	3.89	HU
Real-world applications or content-based problems	3.89	HU
One-on-one teaching	3.79	HU
Small group instruction	3.77	HU
Problem-based learning (students solved real-world problems)	3.70	HU
Concept mapping or graphic organizers	3.66	HU
Flipped classroom (students learn new content at home, practice in class)	3.61	HU
Math journaling or reflections	3.48	HU
<b>Overall Weighted Mean</b>	<b>4.02</b>	<b>HU</b>

Rating Scale	Descriptive Interpretation	
4.20 – 5.00	Very Highly Utilized	(VHU)
3.40 – 4.19	Highly Utilized	(HU)
2.60 – 3.39	Moderately Utilized	(MU)
1.80 – 2.59	Slightly Utilized	(SU)
1.00 – 1.79	Not At All Utilized	(NAAU)

learning and manipulatives as an alternative strategy is supported by Clements and Sarama (2020) and Santos (2021) which emphasize that play and exploration are foundational to mathematical understanding. The frequent use of peer tutoring, small group instruction, and one-on-one teaching demonstrates a strong reliance on collaborative and individualized support. Oktavianti et al. (2022) directly support these findings, showing that small group mentoring and grouping students by ability can improve skills and foster confidence. The need for this targeted support is also highlighted in the study by Lavador et al. (2024) on learners from socioeconomically disadvantaged backgrounds. The adoption of a flipped classroom model while less frequent, is consistent with the findings of Cañada et al. (2024), who showed that integrating online applications into teaching can enhance learning experiences and outcomes.

### Difference in the Mathematics Proficiency Level of Grade 1 to Grade 3 Before and After the Conduct of Rapid Mathematics Assessment

A paired samples t-test was conducted to examine differences in students’ performance between pre-test and post-test across the intervention, consolidation, and enhancement phases. For the Intervention group, the mean difference was 21.16,  $t(18) = 1.405$ ,  $p = .177$ , indicating higher post-test scores, but the increase was not statistically significant.

Table 3 Test for Significant Difference on the Proficiency Level of Grades 1-3 Before and After the Implementation of Rapid Mathematics Assessment

RMA (Pre-Test and Post Test)	Mean Difference	Computed Value (t-Test)	p-value	Remarks
Intervention	21.16	1.405	.177	Not Significant
Consolidation	-8.21	-1.161	.261	Not Significant
Enhancement	-10.05	-.992	.334	Not Significant

The Consolidation group showed a mean difference of -8.21,  $t(18) = -1.161$ ,  $p = .261$ , and the Enhancement group had a mean difference of -10.05,  $t(18) = -0.992$ ,  $p = .334$ , both reflecting slight declines that were also not significant. These results suggest that the activities did not produce statistically significant improvements in post-test performance. While the Intervention group showed a positive trend, the gains were insufficient to reach significance, and the minor declines in the other groups were not meaningful. This aligns with Bellinger (2023),

who similarly found that math interventions may benefit students, but no significant relationship was observed between receiving the intervention and performance on standardized exams.

This overall pattern suggests that when the intervention is not strong enough or precise enough, the positive changes seen are too small or inconsistent to be considered reliable proof of its effectiveness. As Bellinger stated, "intensive support is needed for students who have persistent math challenges," implying that the current level of assistance may not be focused enough to fix long-term learning gaps. Therefore, future attempts at remediation must move past simple extra help and instead concentrate on very strong, well-implemented practices to make sure the teacher's efforts lead to reliable, measurable student progress.

While descriptive data showed notable shifts in proficiency categories, the paired sample t-test did not yield statistically significant differences. This discrepancy may be attributed to several methodological factors. First, the intervention period between the pre-test and post-test may have been too short to produce statistically detectable gains. Second, the analysis relied on aggregated school-level data rather than individual learner growth trajectories, which may have diluted measurable effects. Third, improvements reflected in categorical shifts (e.g., movement from Intervention to Consolidation) may not necessarily translate into large mean score differences required to achieve statistical significance. Therefore, while positive trends were observed descriptively, the findings should be interpreted cautiously.

### **Challenges encountered by the primary teachers in improving the mathematics proficiency of Grades 1 to Grades 3 learners**

Table 4 presented the results of several significant challenges encountered by primary teachers in improving mathematics proficiency. One major concern identified in the implementation of the RMA is the limited parental support for pupils' learning, particularly in terms of homework supervision and reinforcement of mathematical concepts at home. Many pupils reportedly come to school with incomplete or unfinished assignments due to the absence of adult guidance, which consequently contributes to slower academic progress and difficulty in mastering essential skills.

This challenge is particularly evident in schools located in island communities where fishing serves as the primary source of livelihood. In these areas, learners often miss classes or arrive fatigued as they assist their families with fishing activities or household responsibilities. As a result, irregular attendance and limited study time at home affect learners' academic performance and readiness for classroom instruction, highlighting the need for flexible learning strategies and strengthened school-community support systems. Informal teacher reflections further illustrate these challenges. One teacher shared, "Many of my pupils come to school without reviewing at home because their parents are busy with fishing or other livelihood activities." Another teacher noted, "We want to use more interactive digital lessons, but internet connection and devices are limited in our area." These statements provide contextual explanations for the statistical findings and demonstrate how external factors influence instructional effectiveness. Another major challenge affecting mathematics learning is the lack of educational technology, which limits teachers' ability to deliver interactive, digital-enhanced lessons. These schools are located either on nearby islands or in far-flung areas within the district, making the adoption of technology-based instructional strategies extremely challenging. As a result, teachers in these contexts are often compelled to rely solely on traditional teaching methods, limiting opportunities for interactive learning and digital skill development among pupils. This digital divide underscores the need for targeted infrastructure support and alternative, low-tech instructional innovations to ensure equitable learning opportunities across schools. This perception leads to reduced participation in classroom activities, reluctance to respond to questions, and minimal engagement during problem-solving tasks, ultimately affecting learning outcomes. The problem is further intensified by the lack of sufficient and updated learning resources. In some schools, learners rely on outdated textbooks and incomplete or deteriorated visual aids, instructional tools, and equipment, which limit effective teaching and hinder meaningful learning experiences. This condition adversely affects the effective implementation of differentiated strategies and learner-centered approaches under the RMA, highlighting the need for class-size management interventions or additional instructional support to ensure that all learners are adequately supported. Additionally, learner's limited vocabulary and insufficient understanding of mathematical language often led to confusion, even among learners who demonstrate adequate computational skills. Teacher's difficulties often arise when learners misinterpret word problems due to unfamiliar or misunderstood terms, such as *difference*, *round off*, or *multiple*, which can lead to incorrect solutions even when procedural knowledge is

correctly applied. This gap between computation and comprehension underscores the importance of explicit instruction in mathematical language and problem interpretation. The classroom management challenges arising from behavioral issues can disrupt the teaching–learning process. these challenges illustrate the complex and multifaceted learning environments that teachers must navigate. They emphasize the need for stronger institutional support systems, updated and adequate instructional resources, and enhanced home– school collaboration to address both academic and behavioral concerns and ultimately improve pupils’ mathematics proficiency. The importance of parental involvement is supported by research linking family engagement to numeracy development. Bañados et al. (2022) emphasize that community and parental participation are essential to children’s learning, while Camillo and Balandra (2022) note that numeracy instruction in the Philippines is more effective when parents reinforce learning at home.

Table 4 Challenges Encountered by the Primary Teachers in Improving the Mathematics Proficiency

Indicators	WM	Int.
Lack of support from parents	4.38	SA
Insufficient educational technology	4.08	A
Low student interest or enthusiasm in mathematics	4.06	A
Inadequate or outdated learning resources	4.04	A
Lack of parental support at home for students learning	4.03	A
Limited access to teaching materials (E.G textbooks, workbooks, manipulatives)	4.02	A
Difficulty in giving individual attention to all students	3.94	A
Students limited vocabulary or understanding of mathematical language	3.86	A
Classroom management difficulties due to behavioral problems	3.83	A
Students lack discipline or responsibility towards learning	3.80	A
Managing classroom behavior and engagement	3.75	A
Limited communication between teachers and parents	3.72	A
Lack of specialized training in teaching mathematics to younger students	3.71	A
Difficulty in maintaining students focus and attention	3.63	A
Lack of student’s participation in lessons	3.60	A
Challenges in assessing individual student progress due to large class size	3.60	A
Limited time for hands-on activities or interactive teaching	3.57	A
Lack of foundational skills	3.56	A
Students with varied levels of prior knowledge or background in mathematics	3.54	A
Limited access to professional development of workshops on math instruction	3.53	A
Insufficient to cover the entire curriculum	3.48	A
Struggling students with learning disabilities	3.43	A
Inadequate support from school leadership in terms of training and development	3.37	N

Poverty or lack of basic resources at home affecting student readiness to learn	3.33	N
Inadequate tools or methods for formative assessment	3.24	N
Overall Weighted Mean	3.72	A

Rating Scale	Descriptive Interpretation	
4.20 – 5.00	Strongly Agree	(SA)
3.40 – 4.19	Agree	(A)
2.60 – 3.39	Neutral	(N)
1.80 – 2.59	Disagree	(D)
1.00 – 1.79	Strongly Disagree	(SD)

These findings demonstrate that extending support beyond the classroom creates a collaborative environment where learners can practice and apply skills consistently, leading to improved outcomes. Administrators who support teachers through parent orientations, community programs, and resource-sharing initiatives help strengthen the learning ecosystem, reflecting the principle that sustained collaboration among parents, teachers, and school leaders enhances student confidence, participation, and academic growth. This aligns with Lavador et al. (2024), who found maternal educational attainment strongly correlates with early literacy and numeracy performance, highlighting the critical role of home support, a concern reflected in the high weighted mean for lack of parental involvement in this study. Together, these findings underscore the need for strengthened home-school collaboration and accessible, modern, context-appropriate resources to enhance mathematics proficiency.

### Intervention to Address the Challenges Encountered by Primary Teachers

In response to the challenges identified in enhancing mathematics proficiency among Grades 1 to 3 learners in Mercedes District, the study proposed the Mathematics Proficiency Implementation Plan (MPIP), a structured, evidence-based framework designed to guide teachers, administrators, and stakeholders in improving learning outcomes. The MPIP is structured into three phases implemented over one academic year. Phase 1 (Diagnostic and Planning, Months 1–2) includes baseline assessment, teacher orientation, and intervention planning workshops. Phase 2 (Targeted Implementation, Months 3–8) focuses on differentiated instruction, small-group remediation, parental engagement sessions, and periodic formative assessments. Phase 3 (Monitoring and Evaluation, Months 9–10) involves post-testing, data analysis, and instructional refinement. Required resources include teacher training modules, updated manipulatives and learning materials, structured remediation guides, and community engagement tools. Anchored on the study’s findings such as limited instructional resources, gaps in pedagogical skills, diverse learner needs, and low parental support, the MPIP provides a multi-faceted, cyclical approach that integrates teacher training and professional development, curriculum alignment with appropriate instructional materials, and phased implementation with continuous monitoring through pre- and post-tests. It emphasizes stakeholder engagement, equipping parents and local authorities to actively support learning, while also embedding a continuous improvement cycle to adapt strategies to students’ evolving needs. By combining targeted interventions, collaborative teaching practices, and systematic assessment, the MPIP addresses both internal and external factors affecting mathematics learning, ensuring sustainable, measurable improvements in foundational skills such as number sense, problem-solving, and concept application, thereby creating a supportive and effective environment for enhancing mathematics proficiency in primary learners.

### Limitations of the Study

This study has several limitations. First, the absence of a control group limits the ability to attribute changes in proficiency solely to the implementation of the RMA. Second, instructional strategies were measured through self-reported survey data, which may be subject to response bias. Third, other concurrent initiatives under the National Learning Recovery Program and the 6Bs program were implemented during the same period, making

it difficult to isolate the specific effect of the RMA. Finally, the relatively short duration between pretest and post-test administration may not have been sufficient to capture statistically significant learning gains.

## CONCLUSION

Based on the findings, the following conclusions were deduced: 1) The Rapid Mathematics Assessment showed positive descriptive trends, with fewer pupils in the Intervention Category and increases in the Consolidation and Enhancement Categories; however, these improvements were not statistically significant based on the paired sample t-test. 2) Primary teachers in the Mercedes District consistently employed a wide range of strategies, with group activities, direct instruction, differentiated instruction, visual aids, collaborative learning, and educational technology being the most highly implemented. 3) The paired sample t-test indicated no statistically significant differences across proficiency levels; slight gains in the Intervention group and minor declines in the Consolidation and Enhancement groups showed overall performance remained stable. 4) Teachers face significant challenges in improving mathematics proficiency, particularly lack of parental support, limited educational technology, outdated resources, low student interest, large class sizes, and weak foundational skills. 5) The study resulted in the development of the Mathematics Proficiency Implementation Plan (MPIP) to address challenges and enhance mathematics proficiency among Grades 1–3 learners in the Mercedes District.

## RECOMMENDATION

Based on the evidence and conclusions derived from the study, the following recommendations are proposed: 1) School heads and teachers may sustain effective instructional strategies by regularly using assessment data, providing ongoing professional development, and monitoring learner progress. 2) They may continue and refine diverse teaching strategies while offering targeted support to enhance mathematics proficiency. 3) School heads and teachers may use assessment data to identify learning gaps and adjust strategies for targeted, measurable improvements across all proficiency levels. 4) School heads may strengthen school–home partnerships, update learning resources, improve access to educational technology, and implement strategies that build foundational skills and engagement. 5) School heads may adopt and pilot the Mathematics Proficiency Implementation Plan (MPIP) to address challenges and improve Grades 1–3 mathematics proficiency. 6) Future researchers may conduct longitudinal studies to assess the MPIP’s long-term effectiveness and explore additional factors affecting mathematics proficiency.

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