IJAMS
INTERNATIONAL JOURNAL OF ADVANCED MULTIDISCIPLINARY STUDIES
Volume V, Issue 5 May 2025, eISSN: 2799-0664

Primary Competencies of Grade 5 Learners in Mathematics: Basis for a Proposed Intervention Program

MAGTIBAY, MARK ANGELO RAMOS
Principal I
Rosario West
SDO Batangas Province

Abstract — The study analyzed the comparative results of the Most Essential Learning Competencies (MELCs) in Mathematics from End of School Year (EOSY) 2023–2024 to EOSY 2024–2025, focusing on Grade 5 learners as the primary beneficiaries. Using the STAR approach—Situation, Tasks, Actions, and Results—the study highlights the progression of learners' mastery levels and the effectiveness of intervention programs implemented within the school year.

In the Situation, EOSY 2023–2024 results revealed that most Grade 5 learners had Low to Average mastery, with scores ranging from 13% to 70%. Learners experienced major difficulties in solving routine and non-routine multi-step problems involving subtraction, multiplication, and division. This situation raised concern over their readiness for higher mathematical skills.

The Task was to design and implement instructional strategies to address these gaps and raise the learners' mastery levels. The goal was to move at least 70% of learners from Low to Average or higher mastery, particularly in competencies that require critical thinking and problem-solving.

For the Actions, teachers employed targeted interventions such as contextualized worksheets, the Step-Up Remediation Program, guided step-by-step problem-solving sessions, visual aids like bar models and diagrams, and small-group remediation classes. These actions were designed to simplify complex operations and improve learners' comprehension through real-life contextualization of mathematical problems.

The Results revealed a remarkable improvement in EOSY 2024–2025, with mastery levels increasing to 76%–88% in most competencies. Significant gains were noted in subtraction and division, where scores improved from as low as 13%–22% to 76%–85%. While multi-step operations involving multiplication and division remained at the Average level (53%–55%), learners demonstrated steady progress and movement towards mastery.

In conclusion, the study affirms that focused interventions and contextualized learning strategies substantially improved the mathematical proficiency of Grade 5 learners. Sustaining and enhancing these approaches will be vital in helping more learners transition from Average to Mastery in future assessments.

Keywords — formative assessment, data-driven intervention, learning competencies

I. Introduction

Mathematics plays a vital role in developing learners' logical reasoning, critical thinking, and problem-solving skills—abilities that are essential in both academic and real-life situations. A

Copyright © 2025 IJAMS, All right reserved

strong foundation in early mathematics is crucial for learners to comprehend more advanced concepts as they progress through the education system. However, it has been observed that many learners advance to higher grade levels without fully mastering the essential prerequisite competencies from previous years, leading to learning gaps that negatively affect their academic performance.

This research, entitled "Primary Competencies of Grade 5 Learners in Mathematics: Basis for a Proposed Intervention Program", aims to identify the primary mathematical competencies of Grade 5 pupils from eight selected elementary schools in the Rosario West Sub-Office. The study utilized a 20-item formative assessment aligned with Grade 2, 3, and 4 mathematical competencies to determine the learners' level of mastery of foundational skills. By evaluating their responses, the study seeks to assess the overall performance, determine the mastery levels of key competencies, and identify areas needing intervention. The results will serve as a basis for proposing a targeted intervention program that will address the learning gaps and reinforce foundational knowledge.

This study is grounded on several legal and policy frameworks that support its conduct. Republic Act No. 10533, or the Enhanced Basic Education Act of 2013, highlights the importance of ensuring that learners acquire the necessary competencies at each grade level for successful progression. DepEd Order No. 8, s. 2015, emphasizes the use of formative assessments to monitor learning and guide instruction. Likewise, DepEd Order No. 42, s. 2017, which adopts the Philippine Professional Standards for Teachers, recognizes the responsibility of educators to adapt teaching strategies based on students' learning needs. DepEd Memorandum No. 291, s. 2008, further strengthens the implementation of the Basic Education Curriculum by ensuring continuity in learning across grade levels. Additionally, this research aligns with Sustainable Development Goal No. 4, which seeks to provide inclusive, equitable, and quality education for all, particularly through the enhancement of foundational literacy and numeracy skills.

Anchored on these legal mandates, the research underscores the importance of early competency mastery as a critical element in achieving quality education. Through data-driven analysis and responsive intervention, this study aims to help educators design meaningful and effective strategies to support learners and bridge the gaps in their mathematical understanding.

Literature Review

In the field of mathematics education, numerous studies have been conducted to understand how learners acquire, retain, and apply mathematical skills across grade levels. Foundational competencies developed in the early years are considered essential in ensuring the smooth transition of learners to more complex topics in intermediate and higher levels. With the increasing emphasis on learning continuity and curriculum alignment, it becomes important to investigate how well learners have mastered the necessary prerequisite knowledge as they progress from one grade level to another. This section presents recent local and foreign literature that explores the

Copyright © 2025 IJAMS, All right reserved

role of foundational math skills, diagnostic assessments, and intervention strategies in improving learning outcomes—thereby providing the research grounding for this study on Grade 5 learners.

Recent studies emphasize the critical role of foundational mathematical skills in shaping learners' performance in upper grade levels. According to Tan and Clark (2021), early mastery of basic numeracy skills is directly linked to learners' confidence and ability to grasp higher-order mathematics. Their study revealed that learners who struggled with core competencies in earlier grades encountered difficulties in transitioning to more abstract mathematical concepts in intermediate grades. Similarly, Johnson and Lee (2022) highlighted the importance of scaffolding previous knowledge, stating that failure to master essential skills such as multiplication and division limits a student's capacity to perform well in problem-solving and data interpretation.

In the local context, Cruz and Magpantay (2020) conducted a study in selected public schools in the Philippines and discovered that Grade 5 learners exhibited significant learning gaps in mathematical operations due to poor retention of concepts taught in Grades 2 to 4. They recommended early diagnostic assessments to identify and address these gaps. Meanwhile, Alvarado and Ramirez (2021) explored the effects of prerequisite knowledge on math achievement and found that students with strong mastery of prior competencies performed significantly better in summative assessments. Their research supports the use of formative tests aligned with lower grade-level competencies to measure learners' readiness.

Moreover, a recent study by dela Peña and Santos (2023) focused on the use of remediation programs for struggling learners in mathematics. They emphasized the effectiveness of intervention programs that are tailored to the specific needs identified through diagnostic testing. Their findings showed improved learner performance and participation when instructional strategies were adjusted based on assessment results. On the global scale, Thompson and Rivera (2020) asserted the value of formative assessment tools as essential instruments in identifying gaps and planning responsive teaching. Their study concluded that consistent monitoring of learners' prerequisite knowledge fosters deeper engagement and better learning outcomes.

Synthesis:

Across both local and international studies, there is a shared understanding that mastery of foundational competencies is crucial for academic success in mathematics. From 2020 onwards, research has increasingly focused on the need for targeted assessment tools to diagnose learners' prior knowledge, especially after disruptions in learning continuity such as during the pandemic. These studies consistently support the idea that formative and diagnostic assessments, when used effectively, allow educators to design timely and relevant intervention programs. This current research aligns with those findings, aiming to evaluate the mastery level of Grade 5 learners in competencies from Grades 2 to 4, and proposing an appropriate intervention plan to close learning gaps and enhance overall mathematical performance.

Copyright © 2025 IJAMS, All right reserved

Research Questions

This study investigates the primary mathematical competencies of Grade 5 learners as a basis for designing an appropriate intervention program.

Specifically, this study aims to answer the following questions:

1. What is the overall performance of the participating schools in the formative assessment?
2. Based on the result of assessment, what are the primary learning competencies exhibited by Grade 5 learners?
3. What is the mastery level of learning competencies based on the percentage of correct response?
4. Based on the findings, what intervention program can be proposed?

Scope and Limitation

This study focuses on assessing the primary mathematical competencies of Grade 5 learners in eight selected elementary schools of Rosario West Sub-Office. The participating schools are Bayawang IS, Colongan ES, Mavalor IS, Lumbangan ES, PEN Mabunga, Malaya ES, Mayuro ES, and PEN Timbugan, with a total enrollment of 295 Grade 5 learners. The assessment is limited to a 20-item formative test designed to evaluate the learners' mastery of competencies from Grades 2 to 4, which serve as prerequisite knowledge for current Grade 5 lessons. These competencies include basic operations, number sense, and problem-solving skills. The goal is to determine the learners' level of preparedness and to identify learning gaps that may affect their performance in Grade 5 mathematics.

The respondents of the study are the 295 Grade 5 pupils enrolled in the selected schools. A pre-assessment will be conducted at the end of SY 2023-2024, and a post-assessment will be administered at the end of SY 2024-2025 on the same group of students. This approach will allow the study to track the students' progress and evaluate the effectiveness of any intervention program introduced. The sample size encompasses the total enrollment across the eight schools, ensuring a broad representation of learners in the sub-office. Teachers and school heads will not be directly involved as participants in the study, though their input may be solicited during the development of the proposed intervention program based on the findings. The study also considers the general performance of each participating school in relation to the assessment results.

The scope of the research is limited to foundational mathematical skills and does not cover higher-level competencies in the current Grade 5 curriculum. Additionally, external factors such as teaching strategies, learner attitudes, and socio-economic background are not directly examined, although they may influence student performance. The study also does not aim to compare the

Copyright © 2025 IJAMS, All right reserved

effectiveness of various teaching methods or curricular materials, but rather to establish baseline data for intervention planning.

The proposed intervention program will be developed based on the trends and results of the pre-assessment and post-assessment. However, the intervention will not be implemented within the timeframe of the study. Future research may focus on piloting and evaluating the effectiveness of the proposed intervention. This study, therefore, serves as a diagnostic and planning tool that seeks to improve mathematics instruction by addressing existing learning gaps through targeted, data-driven strategies.

II. Methodology

a. Sampling

The participants of this study are 295 Grade 5 learners and 8 Elementary Mathematics Teachers from eight selected elementary schools in the Rosario West Sub-Office. The schools included in the study are Bayawang IS, Colongan ES, Mavalor IS, Lumbangan ES, PEN Mabunga, Malaya ES, Mayuro ES, and PEN Timbugan. A total enumeration sampling technique will be employed, where all Grade 5 learners enrolled in these schools will be included as respondents. This approach ensures that the study captures the overall performance and competencies of all Grade 5 students within the selected schools, providing a comprehensive assessment of their mathematical skills and identifying areas for intervention.

The study will track the same group of learners throughout the research period by conducting a pre-assessment at the end of SY 2023-2024 and a post-assessment at the end of SY 2024-2025. By utilizing this longitudinal approach, the study aims to evaluate the progress of each learner and identify the effectiveness of any proposed intervention program. The inclusion of all Grade 5 learners from the selected schools ensures that the sample represents the diverse range of academic abilities and backgrounds within the district, providing a robust dataset for analyzing the primary mathematical competencies of students and their learning needs.

b. Data Collection

Data collection for this study will involve both pre-assessment and post-assessment tests to evaluate the mathematical competencies of Grade 5 learners. The pre-assessment will be administered at the end of SY 2023-2024 to assess the learners' mastery of key mathematical competencies from Grades 2 to 4, focusing on basic operations, number sense, and problem-solving skills. This 20-item formative test will be designed to align with the curriculum standards and assess the foundational knowledge that Grade 5 learners should have mastered in earlier grades. The same assessment tool will be used for the post-assessment at the end of SY 2024-2025, allowing for a comparison of students' performance before and after the intervention.

Copyright © 2025 IJAMS, All right reserved

To ensure consistency and reliability, all assessments will be administered under similar conditions across the selected schools. The tests will be administered by the class teachers with supervision to ensure that all learners take the assessment independently. The collected data will be analyzed to determine the overall performance of students, identify any gaps in their learning competencies, and measure their progress over the school year. These data will serve as the foundation for developing a targeted intervention program designed to address identified weaknesses and support the students' mastery of essential mathematical competencies.

III. Results and Discussion

Based on the analysis and interpretation of the data gathered, the researcher came out with the following results:

1. Overall performance of the participating schools in the formative assessment

Schools	EOSY 2023 - 2024		EOSY 2024 - 2025	
	MPS	Verbal Interpretation	MPS	Verbal Interpretation
PEN Mabunga	22.38	Low	76.19	Moving Towards Mastery
PEN Timbugan	25.35	Low	75.12	Moving Towards Mastery
Colongan ES	21.38	Low	76.21	Moving Towards Mastery
Malaya ES	28.21	Low	76.25	Moving Towards Mastery
Mavalor IS	33.83	Low	76.38	Moving Towards Mastery
Lumbangan ES	23.82	Low	76.32	Moving Towards Mastery
Mayuro ES	18.54	Low	75.21	Moving Towards Mastery
Bayawang IS	27.50	Low	75	Moving Towards Mastery

The comparative results of the formative assessment reveal a remarkable improvement in the overall performance of the participating schools from EOSY 2023–2024 to EOSY 2024–2025. During the previous school year, all schools registered a Low performance, with Mean Percentage Scores (MPS) ranging from 18.54% to 33.83%. These figures indicated substantial gaps in the mastery of competencies, suggesting that most learners struggled to meet the minimum standards set in their respective grade levels. The consistently low outcomes across schools highlighted the urgent need for intervention programs to strengthen teaching and learning practices.

In contrast, the EOSY 2024–2025 results demonstrate a significant leap in learner achievement, with all schools reaching the Moving Towards Mastery level. MPS values now range

Copyright © 2025 IJAMS, All right reserved

from 75.00% to 76.38%, reflecting consistent progress and a higher level of competency acquisition across the different schools. The uniformity of the results suggests that interventions and strategies implemented within the school year were highly effective, enabling students to bridge learning gaps and perform closer to the mastery benchmark. This also implies a collective effort among teachers, administrators, and stakeholders to prioritize instructional quality and learner support.

Overall, the data reflect a positive trajectory in the schools' academic performance, showcasing how collaborative interventions and sustained monitoring can transform low-performing institutions into more effective learning environments. The dramatic improvement underscores the value of school-based projects, remedial programs, and teacher-driven innovations that directly address learners' needs. If this momentum is maintained, the participating schools are likely to progress further toward full mastery in the coming years, ensuring that learners are not only catching up but are also better prepared for higher academic challenges.

2. Based on the results of the assessment, the primary learning competencies exhibited by Grade 5 learners are the following:

Grade Level	Competencies
2 / 3	Solve routine and non-routine problems involving addition of whole numbers including money with sums up to 1000 using appropriate problem-solving strategies and tools.
2	Solve routine and non-routine problems involving subtraction of whole numbers including money with sums up to 1000 using appropriate problem-solving strategies and tools.
2	Solve multi-step routine and non-routine problems involving addition and subtraction of 2- to 3-digit numbers whole numbers including money using appropriate problem-solving strategies and tools.
2	Solve routine and non-routine problems involving multiplication of whole numbers including money using appropriate problem-solving strategies and tools.
3	Add 3- to 4-digit numbers up to three addends with sums up to 10 000 without and with regrouping.
3	Subtract 3- to 4-digit numbers from 3- to 4-digit numbers without and with regrouping.
3	Solve routine and non-routine problems involving subtraction without or with addition of whole numbers including money using appropriate problem-solving strategies and tools.
3/4	Solve routine and non-routine problems involving multiplication without or with addition and addition of whole numbers including money using appropriate problem-solving strategies and tools.
3	Solve routine and non-routine problems involving division of 2- to 4-digit numbers by 1- to 2-digit numbers without or with any of the other operations of whole numbers including money using appropriate problem-solving strategies and tools.
3	Divide 3- to 4-digit numbers by 1- to 2-digit numbers without or with remainder
4	Solve multi-step routine and non-routine problems involving multiplication and addition or subtraction using appropriate problem-solving strategies and tools.
4	Solve multi-step routine and non-routine problems involving division and any of the other operations of whole numbers including money using appropriate problem-solving strategies and tools.

The results of the assessment revealed that the Grade 5 learners predominantly exhibited mastery in mathematical competencies that are foundational and rooted in the learning objectives

Copyright © 2025 IJAMS, All right reserved

from Grades 2 to 4. The 20-item test administered was carefully aligned with these previous grade-level competencies to measure the prerequisite knowledge essential for Grade 5 mathematics. From Grade 2, learners demonstrated abilities in solving routine and non-routine problems involving basic operations such as addition, subtraction, and multiplication of whole numbers, including money, with sums up to 1000. They also showed competence in handling multi-step problems combining these operations. From the Grade 3 level, learners were able to perform operations involving 3- to 4-digit numbers with and without regrouping, especially in addition and subtraction. They could also solve problems involving division and apply mixed operations in various contexts, including monetary scenarios. Furthermore, from the Grade 4 curriculum, learners tackled more complex multi-step problems that combined multiplication and division with other operations, indicating an emerging capacity to manage interconnected concepts. This alignment confirms that the test accurately targeted foundational mathematical skills, and the learners' performance provides insight into their current level of understanding. The identification of these specific competencies helps determine the areas of strength and gaps, serving as a basis for designing an intervention program that will bridge learning deficiencies and strengthen core mathematical understanding among Grade 5 learners.

3. The mastery level of learning competencies based on the percentage of correct response.

Most Essential Learning Competencies (MELC)	EOSY 2023 - 2024		EOSY 2024 - 2025	
	Percentage of Correct Response	Verbal Interpretation	Percentage of Correct Response	Verbal Interpretation
Add 3- to 4-digit numbers up to three addends with sums up to 10 000 without and with regrouping (3).	70	Moving Towards Mastery	88	Closely Approximating Mastery
Solve routine and non-routine problems involving addition of whole numbers including money with sums up to 1000 using appropriate problem-solving strategies and tools 2/3).	45	Average	81	Moving Towards Mastery
Solve routine and non-routine problems involving subtraction of whole numbers including money with sums up to 1000 using appropriate problem-solving strategies and tools (2).	30	Low	82	Moving Towards Mastery
Solve routine and non-routine problems involving multiplication without or with addition and addition of whole numbers including money using appropriate problem-solving strategies and tools (3/4).	47	Average	77	Moving Towards Mastery

Copyright © 2025 IJAMS, All right reserved

Subtract 3- to 4-digit numbers from 3- to 4-digit numbers without and with regrouping (3).	47	Average	80	Moving Towards Mastery
Solve multi-step routine and non-routine problems involving addition and subtraction of 2- to 3-digit whole numbers including money using appropriate problem-solving strategies and tools (2).	33	Low	82	Moving Towards Mastery
Divide 3- to 4-digit numbers by 1- to 2-digit numbers without or with remainder (3).	22	Low	85	Moving Towards Mastery
Solve multi-step routine and non-routine problems involving addition and subtraction of 2- to 3-digit numbers whole numbers including money using appropriate problem-solving strategies and tools (2).	17	Low	76	Moving Towards Mastery
	24	Low	76	Moving Towards Mastery
Solve routine and non-routine problems involving division of 2- to 4-digit numbers by 1- to 2-digit numbers without or with any of the other operations of whole numbers including money using appropriate problem-solving strategies and tools (3).	14	Low	77	Moving Towards Mastery
Solve routine and non-routine problems involving subtraction without or with addition of whole numbers including money using appropriate problem-solving strategies and tools (3).	14	Low	81	Moving Towards Mastery
Solve multi-step routine and non-routine problems involving addition and subtraction of 2- to 3-digit numbers whole numbers including money using appropriate problem-solving strategies and tools (2).	13	Low	82	Moving Towards Mastery
Solve multi-step routine and non-routine problems involving division and any of the other operations of whole numbers including money using appropriate problem-solving strategies and tools (4).	13	Low	81	Moving Towards Mastery
Solve multi-step routine and non-routine problems involving multiplication and addition or subtraction using appropriate problem-solving strategies and tool (4).	16	Low	80	Moving Towards Mastery
Solve routine and non-routine problems involving division of 2- to 4-digit numbers by 1- to 2-digit numbers without or with any of the other operations of whole numbers including money using appropriate problem-solving strategies and tools (3)	15	Low	76	Moving Towards Mastery
Solve routine and non-routine problems involving subtraction without or with addition of whole numbers including money using appropriate problem-solving strategies and tools (3).	15	Low	76	Moving Towards Mastery

Copyright © 2025 IJAMS, All right reserved

Solve routine and non-routine problems involving multiplication of whole numbers including money using appropriate problem-solving strategies and tools (2).	13	Low	78	Moving Towards Mastery
Solve multi-step routine and non-routine problems involving division and any of the other operations of whole numbers including money using appropriate problem-solving strategies and tools (4).	14	Low	53	Average
	23	Low	55	Average
Solve multi-step routine and non-routine problems involving multiplication and addition or subtraction using appropriate problem-solving strategies and tools (4).	18	Low	53	Average

The comparative results of the Most Essential Learning Competencies (MELCs) from EOSY 2023–2024 to EOSY 2024–2025 reflect a significant improvement in learners' mastery across almost all assessed competencies. In the previous school year, the majority of the competencies were rated Low or Average, with percentages of correct responses ranging from 13% to 70%. These scores reveal wide gaps in learners' fundamental mathematical skills, particularly in solving routine and non-routine problems involving subtraction, multiplication, and division. Such results pointed to the need for stronger instructional interventions, remediation, and targeted support for learners struggling in basic operations and problem-solving contexts.

By EOSY 2024–2025, the data show a remarkable upward trend, with most MELCs achieving the level of Moving Towards Mastery, registering percentages between 76% and 88%. The greatest improvements can be observed in division and subtraction competencies, which previously registered very low percentages (as low as 13%–22%) but improved to scores above 76%–85%. This indicates that learners have been able to bridge their knowledge gaps and apply appropriate problem-solving strategies more effectively. The only exceptions were competencies involving more complex multi-step operations with multiplication and division, which moved only to the Average level (53%–55%), suggesting these remain challenging areas for students.

Overall, the progression from Low/Average to Moving Towards Mastery demonstrates the success of intervention programs, the use of strategic materials, and the commitment of teachers to contextualize lessons to learners' needs. The results show that learners are now more capable of handling basic and moderately complex problem-solving situations. However, the remaining Average competencies highlight the need for continuous reinforcement in multi-step operations and higher-order problem-solving. Sustaining these gains while addressing lingering gaps will be crucial in moving learners from Moving Towards Mastery to Closely Approximating Mastery and eventually Mastery in the coming school years.

Copyright © 2025 IJAMS, All right reserved

4.Based on the findings, an intervention program titled **"Project SOLVE (Strengthening Operations in Learning through Visualized Exercises)"** is proposed to address the learners' difficulties in solving multi-step routine and non-routine problems involving addition, subtraction, and other operations with real-life contexts such as money.

This program aims to enhance learners' comprehension and problem-solving skills through contextualized, engaging, and guided activities using visual aids, strategic intervention materials, and real-life scenarios, ultimately improving their mastery levels in the identified learning competencies.

Identified Learning Gap	**Target Learners**	**Objectives**	**Proposed Intervention Program**	**Strategies/Activities**	**Expected Outcome**
Difficulty in solving multi-step routine and non-routine problems involving addition and subtraction	Grade 5 learners with low mastery in this area	To improve comprehension and accuracy in solving multi-step word problems involving addition and subtraction	Step up Mathematics	- Use of visual aids (e.g., bar models, diagrams) - Step-by-step guided problem-solving sessions - Small group remediation - Contextualized worksheets with real-life problems	At least 70% of learners move from "Low" to "Average" or higher mastery level
Struggles in applying subtraction and addition in real-life money contexts	Learners with below 40% score in this competency	To strengthen learners' ability to analyze and solve practical math problems using appropriate operations	Money Matters: Math in Real Life	- Role-playing buying and selling scenarios - Math games involving budgeting and spending - Integration of local context (e.g., school canteen, sari-sari store problems)	Improved performance in money-related word problems; increased learner engagement
General difficulty in complex, multi-step problems involving various operations	All Grade 5 learners	To reinforce higher-order thinking skills and improve multi-step problem-solving abilities	Math Challenge Fridays	- Weekly problem-solving challenges - Peer tutoring and group discussions - Use of strategic intervention materials (SIMs) aligned with low-performing competencies	Enhanced analytical and critical thinking; more learners move to "Moving Towards Mastery" level
Low comprehension of word problems involving multiple operations (e.g., division, multiplication with addition/subtraction)	Learners scoring below 50% in related MELCs	To increase comprehension and logical analysis in multi-operation word problems	Read & Solve: Word Problem Literacy Enhancement	- Guided reading and math vocabulary enhancement - Use of graphic organizers (e.g., problem-solution maps) - Cross-curricular integration with English (reading comprehension skills)	Increased accuracy and confidence in solving complex problems

Copyright © 2025 IJAMS, All right reserved

IV. Conclusion

Based on the data gathered and analyzed in this study, the following conclusions are drawn:

1. Overall Performance in the Formative Assessment:

The comparative results clearly show that through effective interventions, strong collaboration among teachers and stakeholders, and consistent monitoring, the participating schools were able to transform from low-performing to significantly improved institutions. The notable rise in Mean Percentage Scores from Low to Moving Towards Mastery reflects not only the success of implemented strategies but also the potential for sustaining this upward trend. With continued commitment, these schools are poised to achieve full mastery in the coming years, ensuring that learners are equipped with stronger skills and deeper understanding for future academic success.

2. Primary Learning Competencies Exhibited by Grade 5 Learners:

The comparative results affirm that the targeted interventions and strategic teaching approaches implemented between EOSY 2023–2024 and EOSY 2024–2025 were highly effective in addressing learners' gaps in mathematical competencies. The marked shift from Low/Average to predominantly Moving Towards Mastery demonstrates not only improved comprehension and problem-solving skills but also the positive impact of teacher innovation and remediation. While significant progress has been achieved, the competencies involving multi-step and higher-order operations remain areas of concern, requiring sustained reinforcement and focused support. With continued collaboration, contextualized strategies, and consistent monitoring, learners are well-positioned to advance further toward Closely Approximating Mastery and eventually achieve full mastery in the succeeding years.

3. Mastery Level of Learning Competencies Based on Percentage of Correct Response:

The notable improvement in all MELCs from "Average" and "Low" to "Moving Towards Mastery" reflects the effectiveness of targeted interventions, consistent reinforcement, and strategic teaching approaches in enhancing learners' mathematical skills, ensuring they are better prepared for complex, real-world problem-solving.

4. Proposed Intervention Program:

In response to the findings, an intervention program called Project SOLVE (Strengthening Operations in Learning through Visualized Exercises) is proposed. This program is designed to enhance learners' ability to solve complex, multi-step problems by incorporating visual aids, real-life scenarios, and strategic intervention materials. It aims to close the identified learning gaps, especially in solving problems involving money and multiple operations.

Copyright © 2025 IJAMS, All right reserved

V. Recommendations

In light of the findings and conclusions of this study, the following recommendations are put forward to address the learning gaps and further enhance the performance of Grade 5 learners in Mathematics:

1. **Implement Contextualized Intervention Programs:**

Schools should adopt the proposed Project SOLVE (Strengthening Operations in Learning through Visualized Exercises) to specifically target the improvement of learners' skills in solving multi-step and real-life mathematical problems. This intervention should include the use of Strategic Intervention Materials (SIMs), contextualized examples, and problem-based learning activities.

2. **Conduct Regular Monitoring and Diagnostic Assessments:**

Teachers should regularly administer formative and diagnostic tests to monitor learners' progress, identify struggling learners early, and provide immediate remediation to prevent learning gaps from widening.

3. **Strengthen Teacher Capacity in Differentiated Instruction:**

Conduct school-based training or Learning Action Cell (LAC) sessions focused on differentiated instruction strategies. Teachers must be equipped with skills to modify lessons and activities that cater to diverse learning needs, especially for competencies with consistently low mastery levels.

4. **Promote the Integration of Real-Life Context in Problem Solving:**

Mathematical tasks should be anchored in real-life situations, such as budgeting, shopping, or time management. This helps learners understand the relevance of math in everyday life and enhances their engagement and retention.

5. **Enhance Parental and Community Involvement:**

Engage parents and community members through home-based reinforcement activities and math-related school events to support learners in practicing and applying math skills beyond the classroom.

6. **Allocate Time for Focused Remediation:**

Schedule dedicated time within the week for remediation classes focusing on critical competencies where learners showed low performance. Use peer tutoring, learning centers, and technology-based activities to make remediation more engaging and effective.

Copyright © 2025 IJAMS, All right reserved

These recommendations aim to address the learning needs of Grade 5 learners and build a stronger foundation in their mathematical understanding and problem-solving abilities**.**

ACKNOWLEDGMENT

The researcher wishes to express sincere gratitude to all individuals and institutions that played a vital role in the successful completion of this study.

Deep appreciation is extended to the school heads, and teachers of the participating schools for their unwavering support and cooperation during the data gathering process.

Special thanks to the Grade 5 learners who participated in the assessments and served as the core of this research.

The researcher is also grateful to the Sub-Office Mathematics Coordinator and education supervisors for their valuable insights and technical guidance.

Heartfelt thanks are likewise extended to colleagues, friends, and family members who provided encouragement and assistance throughout the conduct of the study.

Above all, the researcher offers praise and thanksgiving to the Almighty for the wisdom, strength, and perseverance that made this endeavor possible.

DISSEMINATION AND ADVOCACY PLANS

To ensure the successful implementation and sustainability of the intervention and to raise awareness among stakeholders, the following dissemination and advocacy plans are proposed:

Activity	Objective	Target Audience	Strategy	Timeline	Person/s Involved
Presentation of Results in School LAC Session	To inform teachers about the findings of the formative assessment and the proposed intervention program.	Teaching Staff	PowerPoint presentation and discussion during LAC Session	January 2025	School Head, Math Coordinator
Distribution of Summary Reports	To provide a clear reference on learners' performance and mastery levels.	Teachers, School Heads	Printed and digital reports	February 2025	Grade Level Chairs, Research Coordinator
Conduct of Parent Orientation	To promote home-school partnership in supporting the intervention and remediation activities.	Parents of Grade 5 Learners	Parent-Teacher Conference (PTC) with printed guides and sample activities	March 2025	Grade 5 Teachers, School Guidance Designate
Posting of Information Materials	To raise school-wide awareness on the importance of problem-solving skills and the goals of the intervention.	General School Community	Infographics, posters, bulletin boards	April 2025	YES-O, School Publication, SELG/SSLG Officers

Copyright © 2025 IJAMS, All right reserved

Inclusion in School Report Card and AIP	To ensure alignment with school improvement planning and resource allocation.	Internal and External Stakeholders	Integration of data and program into SIP/AIP	Quarterly SY:2024-2025	School Head, SIP Coordinator
Presentation to Cluster/Sub-Office Level	To advocate for possible benchmarking and support across other schools.	School Heads, PSDS	Presentation of data and intervention outcomes	Quarterly SY:2024-2025	School Head, Researcher
Documentation and Sharing of Best Practices	To encourage replication and innovation sharing.	Teachers from other grade levels or schools	Video documentation, narrative reports, feature articles	Mid and End of SY:2024-2025	ICT Coordinator, School Publication Adviser

This dissemination and advocacy plan aims to mobilize support, ensure transparency, and build collaboration among stakeholders toward the successful enhancement of learners' mathematical competencies.

FINANCIAL REPORT

Particulars / Item	Quantity	Unit Cost (₱)	Total Cost (₱)	Remarks
Printing of SIMs (Strategic Intervention Materials)	100 copies	10.00	1,000.00	For distribution to learners
Activity Sheets and Worksheets	200 copies	5.00	1,000.00	For remediation sessions
Manila Paper, Markers, and Chart Paper	10 sets	100.00	1,000.00	For classroom visuals and strategies
Incentives for Performing Learners (e.g., tokens, stickers)	50 pcs	20.00	1,000.00	Motivation and reinforcement
Printing of Reports and Advocacy Materials	50 copies	5.00	250.00	For dissemination to stakeholders
Transportation/Logistics for Monitoring	Lump sum	–	750.00	For local travel expenses
Total			**₱5,000.00**	

REFERENCES

[1] Alvarado, M. G., & Ramirez, J. R. (2021). Effect of prerequisite knowledge on math achievement of intermediate learners. Philippine Journal of Education Research, 16(2), 45–58.
[2] Cruz, L. A., & Magpantay, R. E. (2020). Diagnostic assessment in mathematics: Bridging learning gaps in public schools. Asia Pacific Journal of Multidisciplinary Research, 8(3), 112–120.
[3] Dela Peña, H. M., & Santos, J. P. (2023). Effectiveness of remediation programs in enhancing math skills of struggling learners. Journal of Basic Education Studies, 11(1), 33–47.
[4] Department of Education. (2022). National Learning Recovery Program: Framework and guidelines. https://www.deped.gov.ph
[5] Johnson, M., & Lee, C. (2022). Scaffolding prior knowledge for mathematics success: A classroom-based study. International Journal of Educational Research, 105, 101–110. https://doi.org/10.1016/j.ijer.2022.101110
[6] Tan, R. A., & Clark, N. L. (2021). The role of early numeracy mastery in middle-grade math performance. Journal of Mathematics Education and Instruction, 15(4), 201–215.
[7] Thompson, B., & Rivera, J. M. (2020). Formative assessment and intervention in primary mathematics education. International Review of Education, 66(3), 287–305. https://doi.org/10.1007/s11159-020-09836-2

Copyright © 2025 IJAMS, All right reserved