

Implementation of Project All Numerates and Challenges Encountered Among Key Stage 2 Teachers in Selected Public Elementary Schools in Subic District

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Abstract: This paper presents implementation of project all numerates and challenges encountered among key stage 2 teachers in selected public elementary schools in Subic district.

Keywords: Challenges, Implementation, Project All Numerates, School Administrators, Teachers.

1. Introduction

A. Background

Mathematical abilities are crucial for achieving academic success and navigating daily life, serving as the basis for logical thinking, solving problems, and making decisions. In reaction to worries regarding decreasing numeracy skills among students, numerous global and national efforts have been launched to enhance mathematical literacy. Worldwide, enhancing numeracy has been a focus for various educational systems. As reported by the OECD (2023), the results of the Programme for International Student Assessment (PISA) indicate that numerous students globally, especially in developing nations, face difficulties in fundamental mathematical abilities. Research by Ginsburg et al. (2023) highlights the importance of early numeracy programs and teacher education in improving mathematical skills. Likewise, research conducted by Bowie et al. (2019) in South Africa emphasizes that numeracy programs frequently encounter implementation issues due to insufficient professional development, absence of contextualized teaching resources, and differing levels of student readiness. Although effective interventions are present, like Singapore's Concrete-Pictorial-Abstract (CPA) method and Finland's phenomenon-based learning, their success depends on robust institutional support and the skill level of teachers (Lutfi & Dasari, 2024).

In the Philippines, the 2018 PISA results showed that Filipino students were positioned among the lowest in mathematics skills. This led the Department of Education to enhance numeracy initiatives, such as Project All Numerates (PAN). The Department of Education (DepEd) initiated Project All Numerates as a component of its larger initiatives to

enhance basic numeracy skills, especially in Key Stage 2 (Grades 4–6). Nonetheless, the successful execution of this program continues to pose difficulties for numerous educators because of issues like curriculum integration, teacher readiness, and resource accessibility. Research conducted by Dangle (2020) and Tio (2023) emphasizes that despite national policies promoting numeracy enhancement, obstacles like oversized classes, insufficient teaching resources, and a shortage of ongoing professional development impede successful execution

Furthermore, research by Reyes-García et al. (2019) notes that while teachers recognize the importance of numeracy programs, they struggle with integrating them into the existing curriculum due to time constraints and other factors. Despite these insights, there is limited empirical research on how Key Stage 2 teachers specifically navigate these challenges, creating a research gap on implementation issues at the classroom level. Thus, this research study aimed to evaluate the implementation of the Project All Numerates and Challenges encountered by Key Stage 2 Teachers in Selected Public Elementary Schools at Subic District.

B. Significance of the Study

This study aimed to evaluate the implementation of Project All Numerates and challenges encountered by the Key Stage 2 Teachers in Selected Public Elementary Schools in Subic District. Furthermore, the findings of the study become significant to the following groups of people who are part of the school system:

Project Implementers. They can use this study as a source of information about the suggested improvements to the implementation of the project. It will help implementers in improving the way schools implement and assess the delivery of the project and needed instructional support for better implementation.

Teachers. The result of this study becomes helpful for the teachers in determining the appropriate intervention program to increase the numeracy skills of Key Stage 2 Learners in their

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schools. This will also become an important way of identifying the challenges that teachers encountered in the implementation.

Curriculum Designers. This study will help curriculum designers to further improve the curriculum aligned with the result of the implementation. It will contribute to a better curriculum design that will fit the needs of the learners to improve their numeracy skills.

School Administrators. The result of this study served as a basis for the planning and formulation of plans to further improve the implementation of the Project All Numerates (PAN) of the Department of Education in improving the numeracy skills of Key Stage 2 learners.

Future Researchers. The result of the study would serve as the baseline for their future studies on the topic specifically on the implementation of project all numerates program of the DepEd for further evaluation of other factors aligned with the implementation.

C. Statement of the Problem

This study evaluated the implementation of Project All Numerates and Challenges encountered by Key Stage 2 Teachers among selected public elementary schools in Subic District.

Specifically, this study sought to answer the following questions:

1. What is the profile of the teacher-respondents in terms of:
 1. Age;
 2. Sex;
 3. Highest Educational Attainment;
 4. Years in Service; and
 5. Grade Level Advisory?
2. How do the teacher-respondents evaluate the implementation of Project All Numerates (PAN) in terms of:
 1. Objectives;
 2. Instructional Strategies;
 3. Assessment techniques; and
 4. Monitoring and Evaluation?
3. Is there a significant difference in the challenges encountered by teachers in the implementation of PAN when grouped according to profile variables?
4. What are the challenges encountered by teachers in the implementation of PAN?
5. What are their suggestions for improving the implementation of PAN?
6. What improvement plan may be proposed for the sustainability of the project based on the results of the survey?

D. Scope and Limitations

The study evaluated the implementation of Project All Numerates program of the Department of Education (DepEd) and the challenges that teachers encountered during its implementation. The study focused on the selected Key Stage 2 teachers at Subic District where they are the primary implementers of the said program.

The respondents of this study were the 122 Key Stage 2 teachers in Subic District who were chosen by the researcher through a purposive sampling technique considering the population of the Key Stage 2 teachers in the District. The researcher used a convergent parallel mixed-method research design to gather necessary data from the respondents of this study which will be analyzed through appropriate data analysis tools such as statistical treatment and thematic analysis. The survey instrument was divided into three parts namely the profile of the respondents, evaluation of the implementation of project all numerates and the challenges that teachers encountered during the implementation. A four-point agreement scale was used by the researcher to determine the agreement of the respondents of the questions presented in the survey.

After which, the researcher crafted an improvement plan for the sustainability of the project all numerates of the district based on the result of the survey. Ethical considerations were taken into consideration to ensure compliance with this research study on data privacy law. The survey was administered face-to-face using a printed questionnaire to ensure the fast retrieval of the responses from the respondents after securing endorsement from the division's office.

2. Framework of the Study

This section presents the reviewed related literature and studies that helped the researcher conceptualize the chosen research topic. It discusses the different topics underlying the research problem on the implementation of project all numerates and the challenges encountered by elementary teachers. The reviewed literature and studies provided a more detailed discussion of the research problem.

A. Review of Related Literature and Studies

1) Numeracy Skills of Learners

Numeracy abilities are crucial for a child's mental growth, analytical reasoning, and practical problem-solving skills (OECD, 2023). Studies indicate that solid numeracy skills developed during early education result in enhanced academic outcomes and greater career prospects in adulthood (Ginsburg et al., 2024). Globally, nations like Singapore and Finland adopt organized numeracy initiatives that focus on conceptual comprehension instead of mere memorization, resulting in consistently strong results in international evaluations such as PISA (Zheng et al., 2022).

In contrast, research shows that learners in developing nations, such as the Philippines, encounter ongoing difficulties in gaining numeracy skills. The PISA results from 2018 showed that Filipino students placed among the lowest in math, underscoring shortcomings in their capacity to use mathematical concepts in practical situations (Bernardo et al., 2022). As noted by Guhl (2019), students face difficulties because they have not been exposed early to activities that enhance numeracy, leading to poor foundational skills when they advance to higher grades.

Additionally, socio-economic elements are vital in the development of numeracy. Almaraz-López et al. (2023)

discovered that students from disadvantaged backgrounds lack sufficient access to quality educational materials, exacerbating the disparity between urban and rural learners. Educators also encounter challenges in motivating students with unfavorable views on mathematics, frequently arising from previous setbacks or insufficient parental encouragement (Pinatil *et al.*, 2022). Tackling these issues necessitates focused initiatives like Project All Numerates, which seeks to enhance students' foundational math abilities.

Recent research indicates that incorporating real-world applications into numeracy teaching greatly enhances student involvement and learning results. Brown-Kramer (2020) highlighted that utilizing manipulatives, digital resources, and problem-oriented learning improves students' comprehension of mathematical ideas. In the context of the Philippines, these strategies lack consistent implementation in schools because of resource limitations and inadequate teacher training in innovative teaching methods (Dela Cruz *et al.*, 2023).

Despite multiple efforts, studies still reveal notable differences in numeracy achievement among Filipino learners. Although certain schools effectively carry out remedial programs, others face challenges from systemic problems like oversized classes, insufficient instructional time, and a shortage of quality teaching resources (Cruz, 2022). These results highlight the necessity for evidence-driven numeracy programs that assist both educators and students in attaining mathematical competence.

2) *Implementation of Project All Numerates*

Project All Numerates is a program launched by the Department of Education (DepEd) in 2022 focused on tackling numeracy deficiencies in Filipino students. Its primary aims consist of enhancing basic numeracy abilities, offering support measures for students in need, and furnishing educators with efficient teaching methods. The initiative aligns with worldwide endeavors to boost mathematical skills, akin to numeracy improvement initiatives in Australia and the United Kingdom (Cordova Jr *et al.*, 2024).

Although the initiative shows potential, research reveals that its application differs markedly among schools. As noted by William *et al.* (2025), urban public elementary schools typically enjoy superior access to training and resources, whereas rural schools encounter logistical and infrastructural obstacles. A study conducted by Prabowo *et al.* (2022) indicated that certain teachers find it challenging to incorporate Project All Numerates into their current lesson plans because of curriculum overload and lack of time.

Global research highlights the significance of educator preparation and ongoing professional growth for the success of numeracy initiatives. Schachner *et al.* (2023) discovered that ongoing training programs enhance instructional effectiveness and lead to better student performance. In the Philippines, training for teachers on numeracy instruction is typically provided only once and does not include ongoing support, which restricts its long-lasting effects (Falcunaya, 2023).

An important factor in implementation is the accessibility of teaching resources. A study conducted by Capuno *et al.* (2019) revealed that numerous schools do not have access to modern

textbooks, workbooks, and digital learning resources, hindering teachers from providing captivating numeracy lessons. This problem is made worse in underfunded schools, where educators have to depend on makeshift teaching resources that may not consistently meet DepEd's curriculum requirements.

In general, although Project All Numerates is an admirable program, research indicates that obstacles in execution limit their overall effectiveness. To enhance its efficacy, there is a necessity for more focused teacher training, better instructional resources, and increased administrative backing at both national and local levels (National Academy of Education, 2024).

B. *Objectives*

The main goal of Project All Numerates is to improve the numerical skills of elementary students, guaranteeing that they attain mathematical competence suitable for their grade (DepEd, 2022). This program is in accordance with global numeracy initiatives like Math Recovery (UK) and Every Student Counts (Australia), focusing on early intervention, remediation, and proficiency in essential mathematical concepts (Wright, 2003). Liu *et al.* (2024) state that programs aimed at numeracy are most successful when they emphasize conceptual understanding over just computational proficiency.

A crucial element of the project is closing learning gaps for students who have difficulty with fundamental mathematical operations. Research shows that numerous Filipino students begin Key Stage 2 (Grades 4-6) with a restricted sense of numbers, hindering their ability to understand advanced math concepts (DepEd, 2022). Vale & Barbosa (2023) observed that Project All Numerates intends to offer organized educational interventions that address the varied learning requirements of students, guaranteeing that every child is supported in mathematics learning.

An additional key aim is to equip teachers with the skills required to provide effective numeracy teaching. A study by Sasan (2024) underscores the significance of teacher training in facilitating the effective execution of numeracy programs. In the context of the Philippines, numerous educators face limited access to ongoing professional development opportunities, restricting their capacity to deliver effective numeracy instruction (Cabahug *et al.*, 2024).

Consequently, the All Numerates Project also seeks to incorporate numeracy into various subjects, emphasizing mathematical ideas in practical situations. Research indicates that integrating numeracy within subjects such as science, social studies, and technology enhances students' understanding and appreciation for mathematics (Walle *et al.*, 2018). Nevertheless, Cardino & Dela Cruz (2020) discovered that many schools in the Philippines continue to regard mathematics as a separate subject, overlooking chances for interdisciplinary learning.

Finally, the initiative aims to alleviate math anxiety and boost student involvement through the application of context-based and culturally significant teaching approaches. As stated by Aguhayon *et al.* (2023) numerous Filipino students face challenges in mathematics because of their fear of failure and deficiency in confidence. Project All Numerates tackles this

challenge by encouraging positive educational experiences, teamwork in problem-solving, and tailored instruction, all of which are crucial for building numeracy confidence in students (Cooke, 2017).

C. Instructional Strategies

Instructional strategies are essential for the effective execution of Project All Numerates, as they influence how mathematical ideas are presented and comprehended by students. Studies show that student-focused teaching methods, like problem-based learning (PBL) and inquiry-based instruction, greatly improve numeracy growth (Valiente, 2023). In global scenarios, nations such as Singapore and Finland utilize visual learning methods, hands-on tools, and practical problem-solving activities to strengthen numeracy abilities (Loyola, 2025).

In the Philippines, conventional lecture-based approaches continue to prevail, leading numeracy teaching to depend more on rote memorization than on conceptual comprehension (Kapur, 2024). Project All Numerates promotes the implementation of active learning techniques, including games, storytelling, and practical application activities, to enhance the engagement and relevance of math (Acosta-García & Navarro-Ibañez, 2025). Nonetheless, research shows that numerous educators find it challenging to transition from conventional teaching to interactive methods because of insufficient training and resources (Escanda, 2025).

A fundamental teaching approach within Project All Numerates is differentiated instruction, which customizes lessons to address the varied needs of students (Ruben, 2023). As stated by Peace *et al.* (2024) successful numeracy programs cater to various learning styles by integrating visual, auditory, and kinesthetic teaching methods. Nevertheless, in numerous public schools in the Philippines, substantial class sizes and inflexible curricula restrict teachers from delivering personalized instruction.

In addition, the incorporation of technology is another teaching approach highlighted in numeracy initiatives. Kalyani (2024) discovered that digital resources, interactive simulations, and educational applications can greatly enhance students' involvement and comprehension of mathematical concepts. Nevertheless, numerous public schools in the Philippines do not have access to digital resources, hindering teachers from executing technology-driven numeracy programs (Konstantinov, 2025).

Collaborative learning is likewise an endorsed method in Project All Numerates, where learners collaborate in pairs or small teams to tackle math problems collectively (Cagatan & Quirap, 2024). Research indicates that peer-assisted learning enhances problem-solving abilities, critical thinking, and motivation (Wismath & Orr, 2019). Nevertheless, Yonas *et al.* (2023) observed that Filipino educators frequently face difficulties in managing group activities due to constraints in instructional time and issues with classroom management.

D. Assessment Techniques

Efficient evaluation methods are essential for assessing the

success of numeracy initiatives. Project All Numerates includes both formative and summative evaluations to track students' development and recognize learning deficiencies (DepEd, 2022). Ozan & Kincal (2018) state that formative assessments—like quizzes, observations, and student reflections—allow teachers to modify their teaching according to students' requirements. Global best practices indicate that ongoing, low-pressure assessments result in improved retention and comprehension of mathematical concepts (Valderama & Oligo, 2021).

Research indicates that numerous Filipino educators depend significantly on standardized tests, which evaluate procedural knowledge instead of conceptual comprehension (Santiago, 2023). Nevenglosky *et al.* (2018) discovered that insufficient training in genuine assessment methods hinders teachers from adequately assessing students' numeracy abilities. Conversely, nations that excel in numeracy, like Finland and Canada, emphasize performance-oriented assessments, enabling students to showcase their mathematical reasoning via practical applications and projects (Nieminen & Atjonen, 2022).

An innovative evaluation approach suggested for Project All Numerates is implementing diagnostic assessments to pinpoint students' strengths and weaknesses at the start of the academic year. Nonetheless, numerous public schools in the Philippines do not have access to dependable diagnostic instruments, hindering teachers from creating specific interventions (Pitogo & Oco, 2023).

The combination of self-assessment and peer assessment is also promoted in numeracy programs. Nulty (2019) discovered that when learners assess their own assignments and give feedback to fellow students, they cultivate a more profound comprehension of mathematical ideas. Nevertheless, in the context of the Philippines, these strategies are not commonly implemented because of time limitations and strict curriculum frameworks (Santiago, 2023).

E. Monitoring and Evaluation

Monitoring and evaluation (M&E) are essential elements of numeracy programs globally, as they guarantee the effectiveness, sustainability, and flexibility of interventions (Inisha & Elly, 2022). Nations such as Australia, Canada, and Finland utilize data-informed decision-making through real-time analytics to monitor student advancement in math. In Australia, the Numeracy Progressions Framework tracks student success via ongoing assessments and adaptive learning tools, enabling teachers to customize interventions using real-time data on student performance (Jain & Rogers, 2019).

Likewise, the National Numeracy Strategy of the United Kingdom utilizes longitudinal studies to evaluate the effects of numeracy interventions at various year levels (Navarro *et al.*, 2020). As stated by OECD (2023) nations that utilize regular, formative evaluations and data-informed tracking exhibit better numeracy outcomes in global assessments such as PISA and TIMSS. Nonetheless, Race (2023) emphasize that successful M&E necessitates proper training for teachers and organized tracking systems, which are aspects were numerous developing nations, such as the Philippines, encounter difficulties.

In Singapore, a leader in mathematics education, the monitoring of numeracy is integrated into everyday classroom activities (Chigeza & Sorin, 2019). Educators perform frequent diagnostic evaluations, and institutions examine national assessment statistics to improve teaching methods. Adaptive learning technology is utilized to customize numeracy interventions, making sure that students who are struggling obtain focused assistance. These methods emphasize the significance of incorporating technology into M&E frameworks to improve data precision and educational decision-making.

F. Challenges Encountered by Teachers in the Learners Numeracy Skills

Educators play an essential role in enhancing students' math abilities, but they encounter various obstacles in providing effective teaching. A key concern is the readiness and ongoing training of teachers. As stated by Mazana *et al.* (2018), numerous Filipino educators believe they are insufficiently prepared to instruct numeracy, particularly when working with students facing significant math challenges. The absence of tailored training programs and continuous professional growth opportunities restricts educators' capacity to apply successful numeracy approaches.

A further difficulty is the absence of teaching resources and instructional materials. Research conducted by Cardino & Dela Cruz (2020) revealed that although DepEd offers standard teaching guides, numerous schools lack adequate manipulative tools, digital learning resources, or assessment workbooks to cater to varied learning requirements. This lack of resources compels teachers to adapt to their lessons, frequently resulting in varying instructional quality among different schools.

Student involvement is another significant issue, as numerous students show math anxiety and lack confidence in their mathematical skills (Timonera *et al.*, 2023). Educators' express challenges in maintaining student engagement, especially when students originate from environments where mathematics is not prioritized at home. Research conducted by Saro *et al.* (2024) emphasized that classroom tasks incorporating real-world math applications generally enhance engagement, yet not every teacher is equipped for contextualized teaching.

Alongside teaching challenges, oversized classes and limited time also obstruct effective numeracy teaching. Pitoral (2022) observed that in numerous public schools, educators manage 40-50 students in each class, hindering their ability to offer personalized assistance to students who are struggling. Due to a crowded curriculum and restricted teaching time, numeracy lessons frequently turn rapid and largely emphasize procedural skills, providing minimal opportunity for conceptual comprehension.

Challenges related to administration and policy also influence numeracy instruction. As stated by Ondras & Alvero (2023), educators frequently encounter significant workloads, extra non-teaching duties, and a lack of government assistance in carrying out numeracy interventions. Although DepEd requires numeracy initiatives such as Project All Numerates, the

absence of regular monitoring and evaluation systems hinders the effective assessment of student advancement and program effectiveness.

G. Theoretical Framework

The Cognitive Learning Theory describes how both internal cognitive frameworks and external environmental elements affect a person's learning processes (Yilmaz, 2019). As stated by Pakpahan & Saragih (2022), cognitive development takes place through active participation, enabling learners to process, arrange, and combine new knowledge with their past experiences. In terms of numeracy, shortcomings in cognitive processing, like restrictions in working memory and challenges with abstract reasoning, lead to learning setbacks and inadequate mathematical performance (Gathercole & Alloway, 2004). Because cognitive learning theory suggests that learning requires rearranging established mental structures, intrinsic motivation is vital for the growth of numeracy skills (Schunk & Dibenedetto, 2020). Students who are unmotivated find it hard to actively connect with mathematical ideas, which exacerbate their challenges (Ormrod & Jones, 2018). Consequently, numeracy initiatives ought to include remedial, supportive, and intrinsic learning methods that capitalize on students' strengths and create a safe setting where they can make meaning, gain confidence, and connect mathematical concepts logically.

Additionally, Piaget's Constructivist Theory (1970) suggests that people build knowledge through their experiences, resulting in conceptual shifts and enhanced comprehension. Constructivist learning takes place when learners are actively involved in constructing meaning instead of passively absorbing information (Vygotsky, 1978). This corresponds with numeracy education, as students ought to investigate mathematical ideas via problem-solving, inquiry-driven learning, and activity-focused tasks (Sa'dijah *et al.*, 2023). Through participation in significant, context-relevant mathematical activities, learners reshape their cognitive frameworks, enabling a transition from concrete to abstract mathematical reasoning (Kivunja, 2015). Studies indicate that constructivist teaching methods, including experiential activities, practical problem-solving, and facilitated discovery, improve numeracy abilities and conceptual comprehension (Kilpatrick *et al.*, 2001).

Moreover, research by Kroesbergen & Luit (2020) on mathematical interventions for struggling learners suggests that students benefit from explicit, scaffolded instruction that strengthens cognitive structures. This supports the need for remedial, supportive, and intrinsic learning approaches in numeracy programs, as emphasized in your study. Additionally, Apus & Quirap (2024) found that cognitive-based strategies, such as scaffolding and guided discovery, led to significant improvements in Filipino students' numeracy performance.

In accordance with these theories, Project All Numerates ought to incorporate cognitive and constructivist learning principles by making sure that numeracy teaching is focused on learners, driven by inquiry, and supported according to students' developmental readiness. Utilizing task-oriented learning, organized interventions, and motivation-boosting

techniques can assist in overcoming numeracy difficulties, promoting a richer comprehension of mathematics and better performance.

H. Conceptual Framework

The research paradigm of this study is presented in Figure 1 using the input (I), process (P) and output (O) framework as guide in pursuing this research study. It denotes the different processes in the collection of data, data analysis procedure, and the desired output based on the result of the survey.

Figure 1 shows the process that the researcher underwent to gather the necessary data from the selected respondents of this study. The respondents will be asked to provide their profile variables as to age, sex, highest educational attainment, years in service and grade level advisory. A descriptive survey instrument was used to evaluate the implementation of Project All Numerates was divided into four (4) parameters as (1) objectives; (2) instructional strategies; (3) assessment and techniques and (4) monitoring and evaluation. These criteria are in accordance with the implementation of the said projects based on the reviewed related literature and studies. Narrative data was also gathered from the respondents pertaining to the challenges and suggestions on the implementation of PAN. After this, the researcher determined the significant difference using different statistical tools on their evaluation on the implementation of PAN and their profile variables. The result helped the researcher in crafting a proposed improvement plan or sustainability plan for the implementation of the said project.

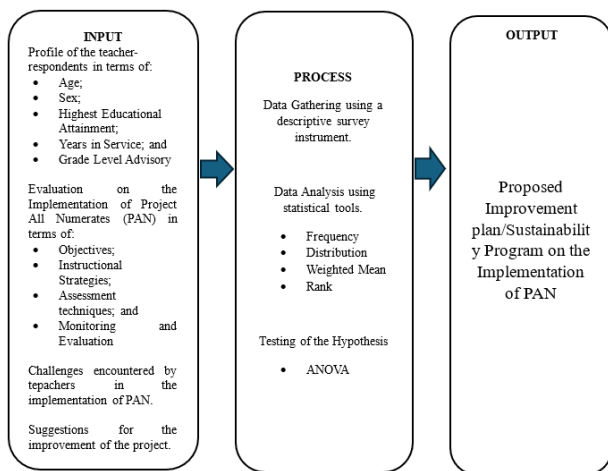


Fig. 1. Paradigm of the study

I. Hypothesis

This study aimed to determine the evaluation on the implementation of Project All Numerates in selected Key Stage 2 Teachers in Subic District. Thus, the following hypothesis was tested:

1. There is no significant difference in the challenges encountered by teachers in the implementation of PAN when grouped according to profile variables.

J. Definition of Terms

To provide a clear understanding of some words used in

this study, the following terms are defined operationally:

Assessment Techniques. It refers to the tools and methods utilized by teachers to measure numeracy progress among students. Operationally, these include the use of quizzes, diagnostic tests, performance tasks, learner portfolios, and other formative and summative assessments that help determine the effectiveness of Project All Numerates.

Instructional Strategies. It refers to the actual teaching methods and approaches employed by Key Stage 2 teachers in carrying out Project All Numerates. For the purpose of this study, these include the frequency and type of numeracy-focused activities, use of differentiation techniques, classroom management methods, and adaptive instructional practices, as reported in teacher responses and validated through observation or documentation.

Monitoring and Evaluation. It refers to the systematic actions taken by teachers and school administrators to observe, track, and assess the implementation and outcomes of Project All Numerates. In this study, it is measured through teacher-reported monitoring tools, feedback mechanisms, documentation of student progress, and periodic evaluations of teaching and learning practices related to numeracy.

Numeracy Skills. It refers to the demonstrated ability of Key Stage 2 students to perform fundamental mathematical operations and apply math concepts in practical contexts. In this study, these skills are evaluated based on teacher observations, assessment results, and students' performance in tasks related to number sense, basic operations, measurement, data handling, and problem-solving.

Objectives. It refers to the clearly defined instructional and learning goals of Project All Numerates as perceived and applied by the Key Stage 2 teachers. These are operationalized in the study by identifying the intended learning outcomes, the alignment of activities to those outcomes, and the extent to which teachers aim to bridge numeracy learning gaps.

Project All Numerates. It refers to the specific numeracy intervention program implemented by Key Stage 2 teachers in selected public elementary schools in the Subic District. It includes the structured teaching plans, strategies, and assessment practices used to enhance learners' numeracy skills. The term is operationalized through the presence of documented instructional plans, teacher-reported implementation practices, and use of program-specific materials and techniques.

3. Methodology

This section contains a comprehensive description of the research design, the respondents and location of the study, the data gathering instrument, the data gathering procedure, and a complete statistical treatment of data and analysis.

A. Research Design

This study employed a convergent parallel mixed methods design to comprehensively evaluate the implementation of Project All Numerates (PAN) among Key Stage 2 teachers in selected public elementary schools in the Subic District. In this design, both quantitative and qualitative data were collected

simultaneously, analyzed separately, and then merged to draw a well-rounded interpretation of the findings.

The quantitative strand utilized a descriptive survey method to gather data on teachers' evaluation of the PAN implementation, specifically focusing on the objectives, instructional strategies, assessment techniques, and monitoring and evaluation practices used. A structured survey instrument featuring a 4-point Likert scale was used to measure the extent of implementation and teacher perceptions.

Concurrently, the qualitative strand explored the challenges encountered and suggestions for improvement of the PAN implementation through open-ended questions included in the same instrument. This allowed the researcher to capture in-depth insights, personal experiences, and contextual narratives from the teacher-respondents.

By integrating the results of both quantitative and qualitative data, the study aimed to provide a more holistic understanding of how PAN is being implemented, the factors influencing its success, and areas that require further support or enhancement.

B. Respondents and Location

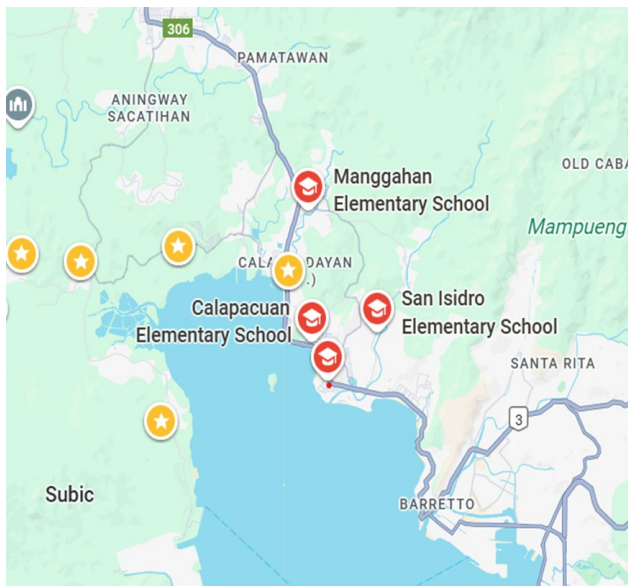


Fig. 2. Location of the study

In this research study, the researcher employed a purposive sampling technique in identifying its target respondents. It is the Key Stage 2 Teachers (Grades 4, 5 and 6) among the big schools and medium schools in Subic District, Zambales. A total of 122 teacher-respondents targeted to answer the survey administered

by the researcher. Table 1 shows the distribution of the target respondents.

The study conducted among selected public elementary schools with Grades 4, 5 and 6 since the implementation of the Project All Numerates is said to be on this grade level according to the existing DepEd Order issued by the national office. Figure 2 shows the location of the study.

C. Instrument

The researcher gathered responses from the respondents using a survey instrument. The instrument was a modified adapted from the study of Kabigting & Almoete (2023) titled "Implementation of Project Numero at Cresdaville Elementary School: An Exploration". The instrument was divided into three (3) parts such as respondents' profile (Part 1), implementation of Project All Numerates (Part 2), and challenges and suggestions (Part 3). Please see Appendix B for the research instrument.

The survey instrument used to evaluate the implementation of Project All Numerates will be divided into four parameters as (1) objectives; (2) instructional strategies; (3) assessment techniques and (4) monitoring and evaluation. A validity test was conducted by three experts in the field for the consistency and correctness of the questions in the survey instrument such as the panel members. The survey questions also underwent reliability testing for ten (10) elementary teachers from small school category in Subic District (Agusuhin Elementary School) who are not part of the targeted respondents. Based on the result of the reliability testing, all the criteria in the survey questionnaire gained good and excellent internal consistency on the parameters objective (.887), instructional strategies (.944), assessment techniques (.960) and monitoring and evaluation (.924) with a total Cronbach Alpha test result of .928 or "Excellent" internal consistency (See Appendix D). This indicates that the questions in the survey questionnaire were understandable by the respondents.

D. Data Collection

Before the conduct of the survey of the target respondents, the researcher obtained first the approval of the Schools Division Superintendent (SDS) of the Division of Zambales upon the recommendation of the thesis adviser and coordinator of graduate school (Appendix A). After the endorsement from the SDS was secured, the researcher immediately proceeded to distribute the survey questionnaire to the 122 teacher-respondents at Subic District. It was facilitated in a face-to-face

Table 1

Distribution of the respondents

Schools	No. of Respondents	Percentage (%)
Subic Central School*	22	18.03
Matain Elementary School*	18	14.75
Mangan-Vaca Elementary School*	12	9.84
Ilwas Elementary School*	12	9.84
Calapacuan Elementary School*	15	12.30
San Isidro Elementary School*	14	11.48
Mapanao Elementary School**	7	5.74
Aningway-Sacatihian Elementary School**	8	6.56
Manggahan Elementary School**	6	4.92
Nagyantok Elementary School**	8	6.56
Total	122	100.00

* Big Schools, ** Medium Schools

mode to easily gather the necessary data and to ensure the reliability of the data gathered from the respondents. The researcher ensured that only the teachers who are willing to complete the survey would be allowed to participate. Policy on the No Disruption of classes was also observed in accordance with the existing policies and guidelines issued by the division’s office.

Constant communication with each school head and coordinator was made for easy retrieval of the survey questionnaire to the respondents. After this, data analysis of the gathered data was administered by the researcher using different statistical tools applicable to this research study like frequency and distribution, weighted arithmetic mean, ranking, standard deviation and ANOVA testing for the hypothesis and thematic analysis (qualitative responses).

E. Data Analysis

Data gathered was tabulated and analyzed by means of statistical tools using the SPSS (Software Package for Social Sciences) in order to interpret the result of the survey. It helped the researcher determine the implementation of Project All Numerates among Key Stage 2 teachers in Subic District.

Furthermore, the following statistical treatment was used to analyze and interpret the gathered data:

1. Frequency counts. It was used to determine the number of respondents who responded to the questions on the profile variables among the Key Stage 2 teacher-respondents.
2. Percentage. It was used to determine the percentage of distribution of the respondents as to their personal profiles among the Key Stage 2 teacher-respondents.

3. Weighted Mean. It was used to get the sum of a variable’s values divided by the total number of values per criteria in the survey instrument pertaining to the four parameters of objectives, instructional strategies, assessment techniques and monitoring and evaluation.
4. Likert Scale. It was used in interpreting the average rating for the questions in the modified-adapted survey instrument, the following scale is adapted:

No.	Range	Verbal Interpretation
4	3.25-4.00	Strongly Agree
3	2.50-3.24	Agree
2	1.75-2.49	Disagree
1	1.00-1.74	Strongly Disagree

Note: The 4-point agreement scale was adapted from (Aithal et al., 2019)

5. Standard Deviation. It was used to determine how the responses of the respondents in the survey varied to check how the weighted mean deviates from the others in the evaluation of the implementation of PAN.
6. Analysis of Variance (ANOVA). It was used to measure the significant difference between the evaluation of the implementation of Project All Numerates (PAN) on teachers’ personal profiles.
7. Thematic Content Analysis. This was used to analyze the narrative statements of the teacher-respondents on the challenges they experienced in the implementation of PAN including their suggestions for improvement of the implementation. Specifically, an inductive method in qualitative research analysis was appropriate based on the design and concept of the study.

Table 2
Frequency and percentage distribution on the teacher-respondents’ profile variables

Profile Variables		Frequency (f)	Percentage (%)
Age (Years) Mean = 39.09 years old	21-26 years old	3	2.5
	27-32 years old	31	25.4
	33-38 years old	29	23.8
	39-44 years old	23	18.9
	45 years old and above	36	29.5
	Total	122	100.00
Sex	Male	32	26.2
	Female	90	73.8
	Total	122	100.00
Highest Educational Attainment	BA/BS degree	28	23.0
	MA/MS degree	7	5.7
	MA/MS units	79	64.8
	PhD/EdD degree	4	3.3
	PhD/EdD units	4	3.3
	Total	122	100.00
Years in teaching Mean = 10.75 years	1-5 years	24	19.7
	6-10 years	41	33.6
	11-15 years	35	28.7
	16-20 years	10	8.2
	21 years and above	12	9.8
	Total	122	100.00
Academic Rank	Teacher 1	67	54.9
	Teacher 2	17	13.9
	Teacher 3	30	24.6
	Master Teacher 1	3	2.5
	Master Teacher 2	5	4.1
	Total	122	100.00
Grade Level Taught	Grade 4	43	35.2
	Grade 5	42	34.4
	Grade 6	37	30.3
	Total	122	100.00

4. Results and Discussion

This chapter presents the gathered and processed data using tabular form, interpreted and analyzed in order to provide a better and clear understanding of the problems stated in section 1.

A. Demographic Profile of the Respondents

The frequency and percentage distribution on the teacher-respondents' profile of age, sex, highest educational attainment, years in teaching, academic rank and grade level taught is shown in Table 2.

1) Age

It can be noted that majority of the teacher-respondents belong to the age group 45 years and above, with 36 or 29.50%; 31 or 25.40% are 27-32 years old; 29 or 23.80% are 33-38 years old; 23 or 18.90% are 39-44 years old; and three (3) or 2.50% are 21-26 years old. The computed mean age of teacher-respondents was 39.09 years old or 39 years old. The findings imply that the teachers are early to middle-aged adults.

The data reveals that the majority of the teacher-respondents are within the early to middle adulthood stage, with the highest concentration falling under the 45 years old and above age group. The computed mean age of 39 years supports this observation, suggesting that most teachers involved in the implementation of Project All Numerates are mature professionals likely equipped with years of classroom experience and instructional competence.

This demographic profile is advantageous in executing numeracy programs, as experienced teachers are typically more familiar with curriculum standards, assessment strategies, and classroom management factors crucial to the success of such initiatives. Moreover, their years in service likely allow them to better understand learner diversity and apply appropriate interventions, particularly in foundational subjects like mathematics.

The findings are consistent with the study of Aliste and Basanes (2024), who noted that teachers in public elementary schools in the Philippines are predominantly in their late 30s to mid-40s, reflecting a stable workforce with a mix of professional maturity and active engagement in classroom innovations. Similarly, Anderson (2017) emphasized that middle-aged teachers tend to show higher levels of program commitment and implementation fidelity, especially when handling national or school-based projects.

In addition, Erikson's psychosocial theory of development classifies individuals in this age range under the stage of generativity vs. stagnation, where adults seek to contribute meaningfully to society often through mentoring, teaching, and nurturing the next generation (Lourenço & Paiva, 2025). This theoretical framework supports the idea that the age profile of the respondents is conducive to the goals of Project All Numerates, which requires educators to be both proactive and nurturing in enhancing learners' numeracy skills.

2) Sex

Out of 122 teacher-respondents, majority with 90 or 73.80% are female, while 32 or 26.20% are male.

The data shows that teaching at the elementary level remains

a female-dominated profession, as reflected by the high proportion of female respondents. This finding is consistent with the observed gender composition in most public elementary schools, where women often take the lead in both classroom instruction and the implementation of learning interventions such as Project All Numerates. The nurturing qualities commonly associated with female educators are often aligned with the requirements of early numeracy instruction, which demands patience, creativity, and strong interpersonal skills. This demographic profile may positively influence the delivery of the project, particularly in terms of learner engagement and differentiated instruction.

This result is supported by Bongco & Ancho (2020), who found that the teaching profession in the Philippines especially at the basic education level is overwhelmingly composed of female educators, attributing this trend to both cultural and historical factors that associate women with caregiving and education.

Likewise, Ammar *et al.* (2024) noted that female teachers often show greater involvement in classroom-based innovations and exhibit stronger affective relationships with learners, making them effective implementers of school-based numeracy and literacy programs.

This trend is also consistent with the Philippine Statistics Authority (PSA, 2022) report, which confirmed that a large majority of public-school teachers are women, especially in the elementary education sector. Such representation may influence the collaborative and student-centered dynamics that support effective project implementation.

3) Highest Educational Attainment

Out of one hundred twenty-two (122) teacher-respondents, majority with 79 or 64.80% earned their MA/MS units, while 28 or 23.00% are BA/BS graduates, seven (7) or 5.70% have MA/MS degrees, and four (4) or 3.30% earned PhD/EdD units and graduated.

The data suggests that a significant portion of the teacher-respondents have actively pursued graduate-level education, with the majority having earned MA/MS units. This reflects the Department of Education's continuing efforts to encourage professional growth and academic advancement among teaching personnel. This trend is highly relevant, especially in the implementation of specialized programs like Project All Numerates, which require deeper pedagogical understanding, research-informed practice, and advanced instructional planning. Teachers with graduate studies are generally more exposed to innovative teaching methods and are likely more capable of integrating project-based and differentiated instruction to meet learner needs in numeracy.

Cardino and Ortega-Dela Cruz (2020) emphasized that teachers who pursue graduate education tend to demonstrate improved classroom practices and higher instructional effectiveness, particularly in delivering numeracy and literacy interventions.

Similarly, John *et al.* (2025) found that in the Philippine public school system, teachers with advanced academic preparation were more confident in implementing curriculum-aligned programs and were more likely to adapt new

educational strategies effectively.

This trend aligns with DepEd Order No. 66, s. 2007, which supports and recognizes the pursuit of graduate studies as part of teacher professional development and career progression. It also resonates with the Philippine Professional Standards for Teachers (PPST), which identifies continuous improvement and higher academic qualifications as key indicators of teacher quality and leadership potential (Rupole & Ching, 2025).

4) *Years in Teaching*

Majority of the teacher-respondents with 41 or 33.60% have 6-10 years in teaching; 35 or 28.70% have 11-15 years in teaching; 24 or 19.70% have 1-5 years in teaching, 12 or 9.80% have 21 years and above years in teaching, while 10 or 8.20% have 16-20 years in teaching. The computed mean number of years of teaching of the teacher-respondents was 10.79 years or 11 years in teaching.

The data reveals that the teacher-respondents are predominantly in the early to mid-phase of their teaching careers, with most having 6–15 years of experience. The average of 11 years indicates that the respondents are not novice teachers, but also not yet near retirement, positioning them in a professionally active and adaptive phase. This profile suggests that the respondents are likely to be familiar with both traditional and modern approaches to teaching and are open to innovation such as Project All Numerates. Their accumulated experience provides them with a strong foundation in pedagogy while still being flexible enough to adapt to new educational reforms and strategies.

According to Phillips *et al.* (2023), teachers with 6–15 years of experience often exhibit a balance between professional stability and openness to innovation, making them ideal implementers of school-based programs. These educators are typically involved in curriculum execution, assessment, and co-curricular projects that demand creativity and leadership. In a related study, Ador *et al.* (2023) found that teaching experience positively correlates with project implementation efficiency, especially in numeracy-related programs, as experienced teachers can identify learner gaps and apply differentiated strategies with greater confidence.

5) *Academic Rank*

Majority of the teacher-respondents 67 or 54.90% are in Teacher 1 position, 30 or 24.60% are Teacher 3, 17 or 13.90% are Teachers 2, five (5) or 4.10% are Master Teacher 2, while three (3) or 2.50% are Master Teacher 1.

The findings reveal that the majority of teacher-respondents are in the Teacher I position, which is typically the entry point in the public school system under the DepEd plantilla. This implies that a significant number of those implementing Project All Numerates are still in the early stages of their professional career ladders, although many may already have several years of experience and graduate units. This composition reflects the reality in many schools where most instructional responsibilities, including implementing learning programs, fall on rank-and-file teachers. While Master Teachers often serve as mentors or coordinators, it is the Teacher I to III ranks who directly apply instructional innovations and engage with learners regularly. This demographic profile highlights the

importance of supporting entry- and mid-level teachers with continuous training and mentoring to sustain the success of school-based interventions.

Javier (2022) noted that in the Philippine public school setting, a large proportion of classroom teachers are in the Teacher I rank, which aligns with the typical distribution of DepEd positions. They emphasized that program implementation often depends on the capacity and willingness of rank-and-file teachers, who carry the bulk of instructional tasks. Additionally, Cordova Jr *et al.* (2024) found that even though Master Teachers hold leadership and mentoring roles, teachers in lower ranks often serve as frontliners in executing educational innovations, including numeracy and literacy interventions.

The trend also aligns with DepEd's Career Progression System, which encourages upward mobility through merit-based performance and continuous learning. This structure ensures that programs like Project All Numerates are supported at all levels, especially by those in Teacher I to III positions who have the most direct contact with learners.

6) *Grade Level Taught*

Majority of the teacher-respondents handled Grade 4 with 43 or 35.20%, 42 or 34.40% handle Grade 5; while 37 or 30.30% handled Grade 6 respectively.

The data illustrates a balanced distribution of teacher-respondents across Grades 4 to 6, which are critical years in numeracy development under the K to 12 Basic Education Curriculum. This distribution is ideal for evaluating the implementation of Project All Numerates, as it ensures that insights are drawn from all three grade levels that comprise Key Stage 2. The slightly higher representation of Grade 4 teachers may reflect the grade's position as a transition year from foundational math skills to more complex numerical concepts, which makes it a strategic focus for numeracy interventions. Teachers at these levels play a crucial role in reinforcing basic computational skills and preparing learners for higher-level problem solving, making their input on the project's effectiveness highly valuable.

According to Quiambao *et al.* (2024), Grade 4 serves as a developmental turning point where learners begin shifting from concrete to abstract mathematical thinking, which is why numeracy interventions are often intensified at this level. This supports the importance of the high representation of Grade 4 teachers in evaluating programs like Project All Numerates.

Ozturk (2025) also emphasized that numeracy gaps often become more apparent in Grades 5 and 6, making the involvement of teachers at these levels crucial for both early detection and targeted remediation. A diverse representation from all three grades enhances the reliability of evaluation results and helps tailor strategies appropriate to the cognitive levels of learners at different stages.

This distribution aligns with DepEd's focus on Key Stage 2 as a critical period for building numeracy proficiency, where strategic interventions can have long-term effects on learners' math readiness in junior high school.

B. Teacher’s Evaluation on the Implementation of Project All Numerates

1) Objectives

Table 3 shows the teachers’ evaluation on the implementation of Project All Numerates in terms of objectives.

Teacher-respondents strongly agreed that Project All Numerates effectively enhances the numeracy skills of their learners, with the highest overall weighted mean of 3.41 (ranked 1). Following closely, they also strongly agreed that the activities under Project All Numerates help develop learners’ interest in mathematics, with a mean of 3.40 (ranked 2.5). On the other hand, the lowest-rated item was that there is strong collaboration among teachers, parents, and learners through the implementation of the project, with a mean of 3.22 (ranked 10). The overall weighted mean on teachers’ evaluation in terms of objectives is 3.33, interpreted as strongly agree.

The findings highlight that teachers acknowledge the strong impact of Project All Numerates on improving learners’ numeracy skills and interest in mathematics. This reinforces the importance of contextualized and engaging math interventions that connect with learners’ daily experiences and interests. However, the relatively lower rating on collaboration among stakeholders suggests a gap in the project’s implementation at the community level. Despite the project’s success in the classroom, more structured efforts may be needed to involve parents and foster partnerships that support student learning

beyond school hours. Strengthening collaboration among teachers, parents, and learners can enhance the long-term sustainability and effectiveness of the program, particularly in numeracy-focused activities that require reinforcement at home.

According to Tallud and Caballes (2023) learner-centered interventions such as contextualized numeracy activities improve students’ engagement and conceptual understanding, especially when aligned with real-life situations. This supports the finding that Project All Numerates significantly enhances learners’ interest and performance in mathematics.

Similarly, Vale & Barbosa (2023), emphasized that numeracy programs are more effective when they are aligned with the learners’ experiences and supported by well-trained teachers. However, Jabian et al. (2025) found that lack of collaboration between teachers and parents is a persistent challenge in the implementation of school-based numeracy programs in public elementary schools. This is consistent with the current study’s result where collaboration ranked lowest among the objectives.

Furthermore, DepEd Order No. 21, s. 2019 on the implementation of Every Child A Reader Program (ECARP) and numeracy interventions also stresses the importance of parental engagement and community partnership. While teacher efforts are pivotal, inclusive collaboration ensures holistic learner development (Adriano, 2023).

Table 3
Teacher’s evaluation on the implementation of project all numerates in terms of objectives

Objectives	Overall Weighted Mean	Descriptive Equivalent	Rank
1 The activities under Project All Numerates help develop learners’ interest in mathematics.	3.40	Strongly Agree	2.5
2 Project All Numerates effectively enhances the numeracy skills of my learners.	3.41	Strongly Agree	1
3 The project’s strategies contribute to improved academic performance in mathematics among learners.	3.40	Strongly Agree	2.5
4 Learners are more motivated to participate in math-related tasks because of the project’s engaging activities.	3.37	Strongly Agree	4.5
5 Project All Numerates provides useful training and strategies that improve my teaching of mathematics.	3.37	Strongly Agree	4.5
6 The project supports parents in becoming more involved in their children’s numeracy development.	3.27	Strongly Agree	8.5
7 There is strong collaboration among teachers, parents, and learners through the implementation of the project.	3.22	Agree	10
8 The project encourages regular communication between parents and teachers about learners’ progress in mathematics.	3.27	Strongly Agree	8.5
9 There are adequate materials and resources available to successfully implement Project All Numerates.	3.32	Strongly Agree	6
10 I face challenges in integrating the project’s activities into the regular classroom schedule.	3.31	Strongly Agree	7
OWM	3.33	Strongly Agree	

Legend: 3.25-4.00 (Strongly Agree); 2.50-3.24 (Agree); 1.75-2.49 (Disagree) 1.00-1.74 (Strongly Disagree)

Table 4
Teacher’s evaluation on the implementation of project all numerates in terms of instructional strategies

Instructional Strategies	Overall Weighted Mean	Descriptive Equivalent	Rank
1 The project provides a variety of instructional strategies that cater to different types of learners.	3.37	Strongly Agree	3
2 Learners with varying levels of ability benefit from the differentiated instruction used in the project.	3.26	Strongly Agree	8
3 The mathematical lessons designed under the project are appropriate to the learners’ levels and needs.	3.19	Strongly Agree	10
4 The project aligns its lessons with learners’ real-life experiences to make learning more meaningful.	3.20	Agree	9
5 The project effectively uses peer-assisted instruction to promote cooperative learning in math.	3.38	Strongly Agree	2
6 Learners demonstrate better understanding of concepts when engaged in peer-assisted activities.	3.40	Strongly Agree	1
7 The project focuses on building essential mathematical competencies aligned with the curriculum.	3.31	Strongly Agree	7
8 The learning activities in the project target specific math skills and standards.	3.36	Strongly Agree	4.5
9 The project allows learners to progress at their own pace to ensure mastery of each lesson.	3.36	Strongly Agree	4.5
10 Sufficient time is provided for learners to master mathematical concepts before moving to new topics.	3.30	Strongly Agree	6
OWM	3.31	Strongly Agree	

Legend: 3.25-4.00 (Strongly Agree); 2.50-3.24 (Agree); 1.75-2.49 (Disagree) 1.00-1.74 (Strongly Disagree)

2) *Instructional Strategies*

Table 4 shows the teachers’ evaluation on the implementation of Project All Numerates in terms of instructional strategies.

Teacher-respondents strongly agreed that learners demonstrate better understanding of concepts when engaged in peer-assisted activities, obtaining the highest overall weighted mean of 3.40 (ranked 1). Closely following this, teachers also strongly agreed that the project effectively uses peer-assisted instruction to promote cooperative learning in math, with a mean of 3.38 (ranked 2). Meanwhile, the lowest-rated item was the mathematical lessons designed under the project are appropriate to the learners’ levels and needs, with a mean of 3.19 (ranked 10). The overall weighted mean for instructional strategies is 3.31, interpreted as strongly agree.

The results affirm the value of peer-assisted instruction as a key strategy under Project All Numerates. Learners not only benefit from collaborative learning environments but also gain deeper conceptual understanding when interacting with peers. This aligns well with the Department of Education’s push for learner-centered instruction and differentiated approaches.

However, the finding that lesson appropriateness to learner levels ranked the lowest indicates a need for refining or further contextualizing instructional content. In the classroom, mismatches between lesson design and learner readiness can lead to disengagement or learning gaps. Teachers may need additional support or flexibility to adapt project materials according to the actual performance levels and needs of their learners, especially in diverse and multigrade settings common in public schools.

Jdia (2021) emphasized that peer-assisted learning enhances mathematical reasoning and self-confidence among Filipino learners, particularly in group activities where peer explanation and correction occur naturally. This supports the top-ranked items of this study. Moreover, Villanueva et al. (2023) found that cooperative strategies significantly improved the problem-solving performance of Grade 3 students in Nueva Ecija, indicating that such instructional models are effective even in rural school contexts.

On the other hand, Dominguez & Svihla (2023) noted challenges in curriculum delivery when instructional materials

are not fully aligned with students’ zones of proximal development. Their study showed that when lessons are too advanced or too simplified, learner motivation and achievement may decline. This is consistent with the lowest-rated item, underscoring the need to match lesson design with learner readiness.

The findings also resonate with DepEd Order No. 42, s. 2017 (Policy Guidelines on Daily Lesson Preparation), which encourages teachers to make instructional decisions based on learner needs and diversity (Ondrada et al., 2024).

3) *Assessment Techniques*

Table 5 shows the teachers’ evaluation of the implementation of Project All Numerates in terms of assessment techniques.

Teacher-respondents strongly agreed that tracking records are used to monitor learners’ development in numeracy over time, garnering the highest overall weighted mean of 3.41 (ranked 1). This was followed by the strong agreement that a learner progress tracking system is in place as part of the project implementation, with a mean of 3.36 (ranked 2). On the contrary, the lowest-rated item was that continuous observation of learners is conducted during project activities to monitor progress, which received a mean of 3.21 (ranked 10). The overall weighted mean in terms of assessment techniques is 3.31, interpreted as strongly agree.

The results underscore the emphasis Project All Numerates places on systematic progress tracking, which teacher-respondents affirm as an effective component of assessment under the program. This confirms the importance of maintaining structured monitoring tools and numerical records to track learners’ improvement over time, a practice that aligns with ongoing efforts in performance-based assessment and learner-centered teaching. However, the lower rating on continuous observation suggests that while formal tracking tools are being used, informal, real-time assessment practices like classroom observation may not be consistently applied. This might be due to high teaching loads, time constraints, or the lack of training in qualitative assessment. There is a need to balance both quantitative (e.g., tracking systems) and qualitative (e.g., observation and anecdotal records) techniques for a more holistic understanding of learner progress.

According to Derasin (2024), progress tracking systems are

Table 5
Teacher’s evaluation on the implementation of project all numerates in terms of assessment techniques

Assessment Techniques	Overall Weighted Mean	Descriptive Equivalent	Rank
1 The project implementers use Department of Education-approved instructional materials.	3.27	Strongly Agree	8
2 Supplementary materials provided by DepEd are effectively integrated into the project’s learning activities.	3.31	Strongly Agree	6.5
3 The project implementers gather valuable insights by conducting interviews with teachers, parents, and peers.	3.34	Strongly Agree	3
4 Stakeholder feedback is considered in adjusting or improving the project implementation.	3.33	Strongly Agree	4.5
5 Continuous observation of learners is conducted during project activities to monitor progress.	3.21	Agree	10
6 The implementers use observations to identify learner needs and adjust strategies accordingly.	3.24	Agree	9
7 A learner progress tracking system is in place as part of the project implementation.	3.36	Strongly Agree	2
8 The tracking records are used to monitor learners’ development in numeracy over time.	3.41	Strongly Agree	1
9 Results from pre-assessment, mid-assessment, and post-assessment are recorded and analyzed by the implementers.	3.31	Strongly Agree	6.5
10 Assessment results are communicated to stakeholders (e.g., teachers, parents) to inform instruction and support.	3.33	Strongly Agree	4.5
OWM	3.31	Strongly Agree	

Legend: 3.25-4.00 (Strongly Agree); 2.50-3.24 (Agree); 1.75-2.49 (Disagree) 1.00-1.74 (Strongly Disagree)

critical tools in identifying numeracy growth over time and are particularly beneficial in early grade interventions. Their study revealed that schools implementing data-driven tracking showed higher gains in student performance. Villarroel et al. (2024) further emphasized the role of pre-, mid-, and post-assessment in monitoring intervention effectiveness. However, she noted that many teachers still struggle with incorporating authentic assessment methods, such as observation and performance tasks, due to limited training.

In the international context, Mousa (2025) highlighted that formative assessments particularly classroom observations are among the most effective ways to improve student achievement. Despite their effectiveness, such methods are often underutilized in traditional classrooms, especially when standardized documentation becomes the primary focus.

The findings also align with DepEd Order No. 8, s. 2015, which advocates for a balanced assessment approach, incorporating both formal tools and day-to-day informal observations to make instructional decisions (Madrilejos, 2024).

4) *Monitoring and Evaluation*

Table 6 shows the teachers evaluation on the implementation of Project All Numerates in terms of monitoring and evaluation.

Teacher-respondents strongly agreed that the activities of Project All Numerates are implemented according to the planned schedule and that monitoring tools (e.g., checklists, observations) are used to track the progress of the project, both with the highest overall weighted mean of 3.40 (ranked 1.5). Meanwhile, they rated lowest the statement that the actual progress of the project is clearly communicated by the implementers to relevant stakeholders, which obtained a mean of 3.31 (ranked 10). The overall weighted mean in terms of monitoring and evaluation is 3.36, interpreted as strongly agree.

The results indicate that Project All Numerates is being

monitored effectively in schools, with teacher-respondents affirming that activities are implemented on time and tracking tools are being utilized efficiently. This reflects a strong adherence to the project’s implementation framework. Monitoring tools such as checklists and observation logs not only ensure timely execution but also support accountability and documentation of learner progress.

However, the lowest-ranked indicator points to a need for improved communication regarding project progress. This suggests that while internal monitoring processes are in place, there may be a communication gap between implementers and external stakeholders such as parents, school heads, or local education officials. In the context of school-based programs, transparent and timely communication of progress is essential to foster trust, encourage support, and align shared responsibilities across stakeholders.

Enhancing communication mechanisms such as progress bulletins, stakeholder meetings, or digital updates may improve collective ownership and sustainability of the program.

Josol et al. (2025) emphasized that effective school-based programs are characterized not only by timely implementation but also by transparent reporting and open communication with stakeholders. Their study in Northern Luzon schools revealed that monitoring without corresponding feedback mechanisms limits stakeholder engagement and support.

Tarraya (2023) similarly argued that teacher-led monitoring practices are crucial in sustaining DepEd literacy and numeracy programs but noted that many public schools still lack structured feedback systems to inform parents and community members about implementation progress. Globally, Ezeh et al. (2024) highlighted that clear and consistent communication of results plays a significant role in improving educational programs, especially those that rely on collaborative efforts.

Moreover, DepEd Order No. 29, s. 2017 on the “Policy

Table 6
Teacher’s evaluation on the implementation of project all numerates in terms of monitoring and evaluation

Monitoring and Evaluation		Overall Weighted Mean	Descriptive Equivalent	Rank
1	The implementers regularly assess the current status of Project All Numerates in the school.	3.36	Strongly Agree	5
2	The actual progress of the project is clearly communicated by the implementers to relevant stakeholders.	3.31	Strongly Agree	10
3	The activities of Project All Numerates are implemented according to the planned schedule.	3.40	Strongly Agree	1.5
4	Any delays or changes in the schedule are properly addressed by the implementers.	3.32	Strongly Agree	9
5	The project is monitored consistently from initiation to completion.	3.34	Strongly Agree	8
6	Monitoring tools (e.g., checklists, observations) are used to track the progress of the project.	3.40	Strongly Agree	1.5
7	The implementers identify and respond to potential risks that may hinder the project’s implementation.	3.36	Strongly Agree	5
8	Challenges encountered during implementation are documented and addressed systematically.	3.39	Strongly Agree	3
9	Periodic feedback about the project’s implementation is provided to teachers and stakeholders.	3.36	Strongly Agree	5
10	The implementers provide timely and constructive feedback on the outcomes of intervention activities.	3.35	Strongly Agree	7
OWM		3.36	Strongly Agree	

Legend: 3.25-4.00 (Strongly Agree); 2.50-3.24 (Agree); 1.75-2.49 (Disagree) 1.00-1.74 (Strongly Disagree)

Table 7
Summary of teacher’s evaluation on the implementation of project all numerates

Dimensions	Overall Weighted Mean	Descriptive Equivalent	Rank
1 Objectives	3.33	Strongly Agree	2
2 Instructional Strategies	3.31	Strongly Agree	3.5
3 Assessment Techniques	3.31	Strongly Agree	3.5
4 Monitoring and Evaluation	3.36	Strongly Agree	1
OWM	3.33	Strongly Agree	

Legend: 3.25-4.00 (Strongly Agree); 2.50-3.24 (Agree); 1.75-2.49 (Disagree) 1.00-1.74 (Strongly Disagree)

Guidelines on System Assessment in the K to 12 Basic Education Program” emphasizes not just internal monitoring but also transparent communication of outcomes to ensure that program adjustments are data-driven and participatory (Balagtas et al., 2019).

5) *Summary: Teachers’ Evaluation on the Implementation of Project All Numerates*

Table 7 shows the teachers’ evaluation on the implementation of Project All Numerates in terms of the four dimensions.

Among the four (4) dimensions of Project All Numerates evaluation, Monitoring and Evaluation obtained the highest overall weighted mean of 3.36 (ranked 1), indicating that teachers strongly agree with how consistently and effectively the project is monitored and evaluated during implementation. This was followed by Objectives, with a mean of 3.33 (ranked 2), highlighting agreement on the clarity and impact of the project’s goals in improving numeracy learning. Both Instructional Strategies and Assessment Techniques shared the same overall weighted mean of 3.31 (ranked 3.5), reflecting teachers' strong approval of the teaching approaches and assessment tools used in the project. The overall weighted mean across all dimensions was 3.33, interpreted as Strongly Agree.

The results suggest that teachers positively perceive the implementation of Project All Numerates across all dimensions, with strength in monitoring and evaluation. This shows the project is well-supervised, with systems in place to track progress and address challenges during implementation. The finding is consistent monitoring ensures that interventions are responsive to learner needs and aligned with intended outcomes.

However, the slightly lower ratings in instructional strategies and assessment techniques indicate areas where more refinement may be beneficial. Teachers might benefit from additional support in tailoring lessons to diverse learner levels and enhancing formative assessment strategies such as classroom observations and real-time feedback. Overall, the high ratings across all dimensions show that the project is effectively carried out in most schools yet still offers opportunities for improvement, particularly in instructional

adaptation and stakeholder engagement.

Cadag (2024) affirmed that strong monitoring frameworks contribute significantly to the successful implementation of educational programs in Philippine public schools, especially when tools like checklists and feedback reports are utilized consistently. Likewise, Layug (2021) stressed the need for meaningful assessment tools and contextualized instructional strategies to maximize the impact of numeracy interventions.

In line with this, DepEd Order No. 29, s. 2017 highlights the importance of integrating program monitoring with evaluation to guide decision-making. Meanwhile, Munda et al. (2024) emphasized that the sustainability of school-based initiatives like Project All Numerates depends on active reflection, timely monitoring, and flexibility in instructional strategies that meet learners where they are.

C. *Test of Difference on the Teachers’ Evaluation on the Implementation of Project All Numerates when Grouped According to their Demographic Profile*

1) *Objectives*

Table 8 shows the difference in the teachers’ evaluation on the implementation of Project All Numerates in terms of objectives when grouped according to demographic profile of the respondents.

The computed p-values for age (0.173), sex (0.714), highest educational attainment (0.353), years in teaching (0.648), academic rank (0.736), and grade level taught (0.941) were all greater than (>) the 0.05 alpha level of significance. Hence, the null hypothesis is accepted. Therefore, there is no significant difference in the teachers’ evaluation on the implementation of Project All Numerates in terms of objectives when grouped according to their demographic profile.

The results indicate that teachers' evaluations of Project All Numerates are consistent and favorable across all demographic groups. Regardless of their age, sex, teaching experience, academic qualifications, or the grade level they handle, teachers equally perceive the objectives of the project to be clear, relevant, and well-executed. This uniformity reflects the inclusive design of the project and its capacity to transcend differences in teacher backgrounds. It may also imply that

Table 8
Analysis of variance to test difference in the teachers’ evaluation on the implementation of project all numerates in terms of objectives when grouped according to their demographic profile

Sources of Variations		SS	df	MS	F	Sig.	Decision / Interpretation
Age	Between Groups	1.492	4	.373	1.623	.173	Do Not Reject Ho (Not Significant)
	Within Groups	26.896	117	.230			
	Total	28.389	121				
Sex	Between Groups	.032	1	.032	.135	.714	Do Not Reject Ho (Not Significant)
	Within Groups	28.357	120	.236			
	Total	28.389	121				
Highest Educational Attainment	Between Groups	1.042	4	.260	1.114	.353	Do Not Reject Ho (Not Significant)
	Within Groups	27.347	117	.234			
	Total	28.389	121				
Years in teaching	Between Groups	.591	4	.148	.621	.648	Do Not Reject Ho (Not Significant)
	Within Groups	27.798	117	.238			
	Total	28.389	121				
Academic Rank	Between Groups	.476	4	.119	.499	.736	Do Not Reject Ho (Not Significant)
	Within Groups	27.913	117	.239			
	Total	28.389	121				
Grade Level Taught	Between Groups	.029	2	.014	.060	.941	Do Not Reject Ho (Not Significant)
	Within Groups	28.360	119	.238			
	Total	28.389	121				

orientation, implementation, and dissemination of the project’s goals have been effective and well-integrated into the school system.

However, while the statistical analysis shows no significant difference, qualitative reflections may still reveal nuanced insights. For instance, more experienced teachers may have a deeper understanding of the project’s long-term goals, while younger or newly appointed teachers may have fresh perspectives but a less contextual background. These perspectives, though not statistically different, are valuable in continuously refining the implementation.

In a study by Igcasama (2021) on the evaluation of numeracy programs in Northern Luzon, results similarly showed no significant difference in teacher perceptions across demographics, suggesting that program clarity and consistent training mitigate variability in interpretation and implementation. Likewise, Cagang (2024) emphasized that strong DepEd program orientation and the use of standardized materials help create a shared understanding among teachers regardless of educational attainment or years of experience.

This is further supported by DepEd Order No. 42, s. 2016 (Policy Guidelines on Daily Lesson Preparation), which promotes standardized lesson planning aligned with key result areas ensuring that even teachers with varied backgrounds implement curriculum and program objectives in a harmonized manner. Additionally, international research by Talib *et al.* (2025) on educational change advocates that system-wide reforms become effective only when they are embraced uniformly by stakeholders a principle demonstrated in the uniform teacher evaluations observed in this study.

2) *Instructional Strategies*

Table 9 shows the difference in the teachers’ evaluation on the implementation of Project All Numerates in terms of instructional strategies when grouped according to demographic profile of the respondents.

The computed p-values for age (0.666), sex (0.808), highest educational attainment (0.360), years in teaching (0.652), academic rank (0.845), and grade level taught (0.358) were all greater than (>) the 0.05 alpha level of significance. Hence, the null hypothesis is accepted. Therefore, there is no significant

difference in the teachers’ evaluation on the implementation of Project All Numerates in terms of instructional strategies when grouped according to their demographic profile.

The findings reveal that teachers’ perceptions of the instructional strategies employed in Project All Numerates are uniform across all demographic variables. Regardless of age, gender, teaching experience, academic rank, or educational attainment, teachers consistently agree on the effectiveness and appropriateness of the instructional strategies used in the program. This suggests that the project’s pedagogical approaches are well-received and are not subject to biases or disparities among groups. It also implies that training, resource provision, and instructional materials may have been consistently deployed across schools, allowing teachers to implement these strategies with equal confidence and clarity.

However, it is also important to note that while no significant differences were found statistically, further enhancement in instructional strategies might still benefit from contextual understanding, particularly in multigrade classrooms or schools with limited resources. Uniform perception is a strength, but there should still be room for flexibility and adaptation based on classroom realities.

Bacus *et al.* (2024) found that when instructional frameworks are strongly supported by DepEd through in-service trainings and clear teacher guides, perceptions of effectiveness tend to be consistent across various teacher profiles. This is aligned with the present finding that teachers across all demographics rate instructional strategies positively and similarly.

Munna and Kalam (2021) likewise emphasized that a well-structured curriculum, especially one supported by differentiated and peer-based approaches, helps minimize discrepancies in teaching effectiveness regardless of the teacher’s background.

This is also in line with DepEd Order No. 42, s. 2016, which encourages the use of learner-centered and differentiated instructional strategies, and emphasizes that these approaches should be accessible to all teachers through professional development programs. Moreover, Langelan *et al.* (2024) supports the idea that differentiated instruction, when institutionalized and scaffolded well, produces shared

Table 9
Analysis of variance to test difference in the teachers’ evaluation on the implementation of project all numerates in terms of instructional strategies when grouped according to their demographic profile

Sources of Variations		SS	df	MS	F	Sig.	Decision / Interpretation
Age	Between Groups	.468	4	.117	.596	.666	Do Not Reject Ho (Not Significant)
	Within Groups	22.992	117	.197			
	Total	23.460	121				
Sex	Between Groups	.012	1	.012	.059	.808	Do Not Reject Ho (Not Significant)
	Within Groups	23.449	120	.195			
	Total	23.460	121				
Highest Educational Attainment	Between Groups	.850	4	.212	1.100	.360	Do Not Reject Ho (Not Significant)
	Within Groups	22.610	117	.193			
	Total	23.460	121				
Years in teaching	Between Groups	.484	4	.121	.617	.652	Do Not Reject Ho (Not Significant)
	Within Groups	22.976	117	.196			
	Total	23.460	121				
Academic Rank	Between Groups	.275	4	.069	.347	.845	Do Not Reject Ho (Not Significant)
	Within Groups	23.185	117	.198			
	Total	23.460	121				
Grade Level Taught	Between Groups	.402	2	.201	1.037	.358	Do Not Reject Ho (Not Significant)
	Within Groups	23.058	119	.194			
	Total	23.460	121				

understanding and high-quality implementation across varied teaching demographics.

3) *Assessment Techniques*

Table 10 shows the difference in the teachers' evaluation on the implementation of Project All Numerates in terms of assessment techniques when grouped according to demographic profile of the respondents.

The computed p-values for age (0.219), sex (0.542), highest educational attainment (0.205), years in teaching (0.312), academic rank (0.566), and grade level taught (0.646) were all greater than (>) the 0.05 alpha level of significance. Hence, the null hypothesis is accepted. Therefore, there is no significant difference in the teachers' evaluation on the implementation of Project All Numerates in terms of assessment techniques when grouped according to their demographic profile.

The findings indicate that teachers regardless of their background consistently perceive the assessment techniques used in Project All Numerates to be effective. Whether the teacher is newly employed or seasoned, male or female, or has varying levels of educational attainment and rank, there is a shared agreement on how assessment is conducted within the program. This suggests that the implementation of assessment

protocols is uniform and well-institutionalized. It reflects the structured use of learner tracking, documentation, and progress monitoring as part of a standardized project delivery.

Although no significant difference was noted, it is still important to ensure that all teachers are continuously capacitated to use both quantitative and qualitative assessment tools particularly in classrooms with learners who have diverse numeracy levels. Uniformity in perception does not always mean complete alignment in application, especially in resource-challenged settings where assessment might rely more heavily on formal testing rather than observation or differentiated assessment.

According to Palinussa et al. (2023), the successful implementation of school-based numeracy programs depends heavily on clear assessment frameworks. When teachers receive uniform training and use standardized materials, their understanding and application of assessment techniques tend to converge, as seen in this study.

Similarly, Mahinay (2021) found that teacher evaluation of assessment tools remained consistent across school divisions when DepEd programs provided common rubrics, forms, and scoring procedures. These results are in line with DepEd Order

Table 10

Analysis of variance to test difference in the teachers' evaluation on the implementation of project all numerates in terms of assessment techniques when grouped according to their demographic profile

Sources of Variations		SS	df	MS	F	Sig.	Decision / Interpretation
Age	Between Groups	1.099	4	.275	1.459	.219	Do Not Reject Ho (Not Significant)
	Within Groups	22.041	117	.188			
	Total	23.140	121				
Sex	Between Groups	.072	1	.072	.373	.542	Do Not Reject Ho (Not Significant)
	Within Groups	23.069	120	.192			
	Total	23.140	121				
Highest Educational Attainment	Between Groups	1.132	4	.283	1.505	.205	Do Not Reject Ho (Not Significant)
	Within Groups	22.008	117	.188			
	Total	23.140	121				
Years in teaching	Between Groups	.917	4	.229	1.206	.312	Do Not Reject Ho (Not Significant)
	Within Groups	22.224	117	.190			
	Total	23.140	121				
Academic Rank	Between Groups	.572	4	.143	.741	.566	Do Not Reject Ho (Not Significant)
	Within Groups	22.569	117	.193			
	Total	23.140	121				
Grade Level Taught	Between Groups	.169	2	.085	.438	.646	Do Not Reject Ho (Not Significant)
	Within Groups	22.971	119	.193			
	Total	23.140	121				

Table 11

Analysis of variance to test difference in the teachers' evaluation on the implementation of project all numerates in terms of monitoring and evaluation when grouped according to their demographic profile

Sources of Variations		SS	df	MS	F	Sig.	Decision / Interpretation
Age	Between Groups	.620	4	.155	.718	.582	Do Not Reject Ho (Not Significant)
	Within Groups	25.292	117	.216			
	Total	25.912	121				
Sex	Between Groups	.014	1	.014	.065	.799	Do Not Reject Ho (Not Significant)
	Within Groups	25.898	120	.216			
	Total	25.912	121				
Highest Educational Attainment	Between Groups	.568	4	.142	.655	.624	Do Not Reject Ho (Not Significant)
	Within Groups	25.344	117	.217			
	Total	25.912	121				
Years in teaching	Between Groups	.332	4	.083	.379	.823	Do Not Reject Ho (Not Significant)
	Within Groups	25.580	117	.219			
	Total	25.912	121				
Academic Rank	Between Groups	.448	4	.112	.515	.725	Do Not Reject Ho (Not Significant)
	Within Groups	25.464	117	.218			
	Total	25.912	121				
Grade Level Taught	Between Groups	.756	2	.378	1.788	.172	Do Not Reject Ho (Not Significant)
	Within Groups	25.156	119	.211			
	Total	25.912	121				

No. 8, s. 2015 on classroom assessment, which mandates formative and summative techniques and emphasizes the use of both quantitative data (e.g., test scores) and qualitative data (e.g., observations and feedback).

Additionally, Black & Wiliam (2018) also emphasized that when teachers are given clear and structured assessment systems, the variability in implementation decreases, allowing for consistency and equity in learning outcomes.

4) *Monitoring and Evaluation*

Table 11 shows the difference in the teachers’ evaluation on the implementation of Project All Numerates in terms of monitoring and evaluation when grouped according to demographic profile of the respondents.

The computed p-values for age (0.582), sex (0.799), highest educational attainment (0.624), years in teaching (0.823), academic rank (0.725), and grade level taught (0.172) were all greater than (>) the 0.05 alpha level of significance. Hence, the null hypothesis is accepted. Therefore, there is no significant difference in the teachers’ evaluation on the implementation of Project All Numerates in terms of monitoring and evaluation when grouped according to their demographic profile.

The results indicate that teachers across different demographic groups hold similar positive perceptions about the monitoring and evaluation processes involved in the implementation of Project All Numerates. Regardless of age, sex, academic qualifications, teaching experience, academic rank, or the grade level they teach, all teacher-respondents evaluated this aspect consistently. This implies that the mechanisms for project monitoring such as progress tracking, reporting, and feedback are being uniformly communicated and implemented across schools.

This uniform perception may also reflect strong administrative oversight and well-disseminated guidelines, allowing teachers from various contexts to implement the same monitoring tools with ease. However, it's still essential to explore whether this consistency in perception translates to consistency in practice, especially in schools with differing access to monitoring tools, personnel, or technical support.

Katsenos & Pierrakeas (2025) found that when project monitoring protocols are standardized and clearly outlined by school leaders, teachers across various profiles tend to rate monitoring and evaluation components consistently. Their study supports the idea that centralized program designs lead to unified perceptions.

Furthermore, Samosa (2022) emphasized the importance of training and regular feedback mechanisms in ensuring consistency in monitoring practices, regardless of a teacher’s

experience or grade level taught. These practices are especially critical in programs like Project All Numerates that aim for system-wide improvements in numeracy.

This is aligned with DepEd Order No. 29, s. 2017 on System Assessment, which encourages the use of uniform tools and data-driven practices to monitor educational programs and guide interventions, promoting equity and accountability. In the global context, T et al. (2024) highlights that large-scale educational initiatives succeed when all stakeholders share a common vision and understanding of monitoring procedures, which appears to be evident in the findings of this study.

D. *Challenges in the Implementation of the Project All Numerates*

What are the challenges you encountered in the implementation/conduct of Project All Numerates (PAN)?

An in-depth thematic analysis of the teachers’ narratives regarding the challenges in implementing Project All Numerates (PAN) revealed critical barriers affecting its execution. These challenges span instructional, logistical, and support-related domains, reflecting the multifaceted realities of classroom environments. From the lack of learning resources and time constraints to issues with student readiness and teacher preparation, the responses point to systemic and classroom-level concerns. Thematic coding led to the emergence of nine key themes, including foundational skill gaps, literacy-related challenges, learner motivation, and parental support. These themes underscore the complexity of delivering effective numeracy interventions and highlight areas requiring immediate attention. Addressing these concerns holistically is essential for improving the overall effectiveness, sustainability, and impact of PAN.

1) *Lack of Learning Resources and Materials*

Table 12 shows the summary of the teacher’s challenges encountered in the implementation of Project All Numerates (PAN).

One of the most pressing challenges in implementing Project All Numerates (PAN) is the scarcity of learning materials and teaching aids. Teachers consistently reported the lack of instructional tools, manipulatives, assessment kits, and even basic supplies such as bond paper and ink. This limitation affects the quality and consistency of instruction, particularly in public schools that rely heavily on standardized resources. The absence of digital tools and internet access in some areas also exacerbates the issue, creating unequal opportunities for learners. According to Cerezo et al. (2025), resource inadequacy is a long-standing issue in Philippine basic

Table 12
Teacher’s challenges encountered in the implementation of project all numerates (PAN)

Emergent Theme	Code	Categorized Significant Statements
Lack of Learning Resources and Materials	Resource Constraints	Lack of materials to use; inadequate instructional materials; materials are not available; materials were not provided in advance; limited resources such as bond paper and ink; lack of adequate software support; unequal access to internet; instructional materials/resources are not enough to meet the demands of PAN.

Table 13
Teacher’s challenges encountered in the implementation of project all numerates (PAN)

Emergent Theme	Code	Categorized Significant Statements
Time Management and Administrative Load	Time Constraints	Time constraint and additional trainings; time for checking adds to teachers' tasks; difficult to manage multiple groups; it is time-consuming; overlapping schedules; limited time allotted; unexpected delays in project activities; PAN consumes a lot of time; unreasonable deadlines can pressure the team.

Table 14
Teacher’s challenges encountered in the implementation of project all numerates (PAN)

Emergent Theme	Code	Categorized Significant Statements
Foundational Numeracy Skill Gaps	Low Mastery of Math Skills	Learners struggle with MDAS; students cannot do basic operations; difficulties in 4 fundamental operations; learners have low comprehension and weak number sense; poor mastery of concepts; computational weakness; lack of mastery; most learners fall under non-numerate level; pupils do not know how to compute; low skills in multiplication/division; difficulties on basic operations.

Table 15
Teacher’s challenges encountered in the implementation of project all numerates (PAN)

Emergent Theme	Code	Categorized Significant Statements
Poor Reading and Comprehension Skills	Literacy-related Math Challenges	Learners cannot understand instructions; students have poor reading comprehension; some learners are non-readers; reading struggles affect math understanding; weak reading hinders instruction following; directions are hard to follow due to language barriers.

Table 16
Teacher’s challenges encountered in the implementation of project all numerates (PAN)

Emergent Theme	Code	Categorized Significant Statements
Assessment and Evaluation Issues	Testing and Monitoring Difficulties	Difficulty in assessing learning gaps; long and inconsistent test implementation; no standardized assessment tools; difficulty in tracking progress; problems with creating effective numeracy tests; challenges in monitoring individual learners.

education, especially in numeracy and literacy programs. As a result, even the most well-designed intervention like PAN cannot reach its full potential without adequate material support.

2) *Time Management and Administrative Load*

Table 13 shows the summary of the teacher’s challenges encountered in the implementation of Project All Numerates (PAN).

Teachers highlighted that the implementation of PAN is extremely time-consuming, often requiring additional hours beyond their regular teaching load. Tasks such as checking outputs, preparing reports, and administering one-on-one assessments put a strain on teachers' schedules. These responsibilities compete with lesson planning, regular classroom teaching, and administrative duties. The Department of Education has long recognized teacher workload as a barrier to effective instruction, as noted in the study by Magtalas (2024) which found that program fatigue and burnout are common among public school teachers. Moreover, time constraints prevent adequate follow-through on interventions, reducing the sustainability of the program. This indicates the need for better scheduling or support mechanisms for teachers tasked with implementing PAN.

3) *Foundational Numeracy Skill Gaps*

Table 14 shows the summary of the teacher’s challenges encountered in the implementation of Project All Numerates (PAN).

A recurring issue among learners is their lack of mastery of foundational math skills, particularly the four fundamental operations. Teachers noted that many students still struggle with basic concepts such as addition, subtraction, multiplication, and division, even in the intermediate grades. This deficiency hinders their ability to understand more complex problem-solving tasks and delays their progress in numeracy. Jabanés and Futralan (2025) emphasized that early intervention is critical in developing number sense, yet many students reach Grades 4 to 6 without these foundational competencies. Without remediation or scaffolded instruction, these learners fall further behind, widening the performance gap. This reveals that PAN must be integrated with targeted

foundational skill-building to be effective.

4) *Poor Reading and Comprehension Skills*

Table 15 shows the summary of the teacher’s challenges encountered in the implementation of Project All Numerates (PAN).

Teachers also reported that poor literacy skills significantly impact learners' performance in math, particularly when solving word problems. Many learners struggle to comprehend instructions, identify keywords, and follow multi-step directions in assessments and activities. Reading deficits, especially among non-readers and struggling readers, act as barriers to understanding math tasks, which often involve contextual or real-life scenarios. According to Rico-Juan et al. (2024), the interplay between reading comprehension and mathematical performance is often overlooked but is crucial in holistic learning. The PISA 2018 results for the Philippines further corroborate this, showing low achievement in both reading and math literacy. To address this, literacy support should be incorporated alongside numeracy development within the PAN framework.

5) *Learner Attitudes and Motivation*

Table 16 shows the summary of the teacher’s challenges encountered in the implementation of Project All Numerates (PAN).

Another common concern is learners’ low motivation and negative attitudes toward mathematics. Some students exhibit math anxiety or fear of failure, often due to poor prior performance or discouraging experiences in earlier grades. Teachers observed that such attitudes lead to disengagement, lack of participation, and minimal effort during numeracy activities under PAN. According to Sison et al. (2021), learner confidence and interest significantly affect academic achievement, especially in math-related subjects. If learners view math as intimidating or irrelevant, no amount of instruction can fully engage them. Therefore, PAN must incorporate enjoyable, relatable, and confidence-building activities to foster a positive math mindset among learners.

6) *Assessment and Evaluation Issues*

Table 17 shows the summary of the teacher’s challenges encountered in the implementation of Project All Numerates (PAN).

Table 17
Teacher's challenges encountered in the implementation of project all numerates (PAN)

Emergent Theme	Code	Categorized Significant Statements
Learner Attitudes and Motivation	Low Interest and Engagement	Lack of motivation; students are disinterested or fearful of math; some learners lose focus; pupils lack confidence in mathematics; implementation of PAN is not engaging for some students; lack of interest in numeracy; learners not fully motivated to participate in math activities.

Table 18
Teacher's challenges encountered in the implementation of project all numerates (PAN)

Emergent Theme	Code	Categorized Significant Statements
Individual Learning Differences	Diverse Learning Needs	Learners do not have the same numeracy level; gaps are too wide among learners; some students are far behind; varied learning paces require different strategies; some pupils are not developmentally ready for content.

Table 19
Teacher's challenges encountered in the implementation of project all numerates (PAN)

Emergent Theme	Code	Categorized Significant Statements
Lack of Parental Support	Low Home Reinforcement	Lack of support from parents; cooperation of parents is minimal; learners are not supported at home; some parents are not involved in monitoring math progress; parental involvement is lacking; insufficient reinforcement from home environment.

Table 20
Teacher's challenges encountered in the implementation of project all numerates (PAN)

Emergent Theme	Code	Categorized Significant Statements
Teacher Preparedness and Program Support	Training and Implementation Gaps	Teachers not fully equipped to administer PAN; lack of orientation; limited training for assessment tools; teachers are unclear on expectations; insufficient support for consolidation reports and tracking templates.

Difficulties in conducting effective assessments under PAN were frequently raised by teachers. Many expressed concerns over the lack of standardized tools, inconsistent testing procedures, and limited training in interpreting results.

As a result, tracking student progress becomes inaccurate or delayed, weakening the feedback loop necessary for effective intervention. Gantalao et al. (2023) pointed out that the absence of uniform assessment mechanisms in DepEd programs often leads to poor monitoring and data use. Teachers also cited that the tests are too long or complex for learners, which compromises validity. To improve the effectiveness of PAN, robust and user-friendly assessment systems should be developed and supported by proper training.

7) *Individual Learning Differences*

Table 18 shows the summary of the teacher's challenges encountered in the implementation of Project All Numerates (PAN).

Classroom diversity in terms of numeracy levels poses a significant challenge for teachers implementing PAN. Students within the same grade often display vast differences in readiness, understanding, and pace of learning. This makes whole-class instruction difficult and necessitates differentiated strategies, which are time- and resource-intensive. Onyishi and Sefotho (2020) emphasized that differentiated instruction is crucial in Philippine classrooms where learner variability is the norm. However, without adequate teacher training and support, it is difficult to implement customized approaches effectively. PAN must provide flexible learning pathways that accommodate learners at varying numeracy stages.

8) *Lack of Parental Support*

Table 19 shows the summary of the teacher's challenges encountered in the implementation of Project All Numerates (PAN).

Many respondents noted that some learners lack home reinforcement and parental support, which are vital for

sustained numeracy development. Factors such as parents' limited education, economic constraints, or lack of awareness about PAN hinder their involvement. This results in inconsistent practice and limited accountability at home, placing the entire burden of learning on the school. According to Salido et al. (2024), parental involvement has a direct positive effect on children's numeracy performance, particularly when parents actively monitor homework and encourage math use at home. However, when such support is absent, learners miss opportunities to reinforce classroom learning. PAN's success is therefore closely tied to parental engagement and support systems.

9) *Teacher Preparedness and Program Support*

Table 20 shows the summary of the teacher's challenges encountered in the implementation of Project All Numerates (PAN).

Some teachers admitted that they did not feel adequately prepared or trained to implement PAN effectively. They cited insufficient orientation, unclear guidelines, and lack of mentoring as barriers to successful execution. While the program's goals are well-intentioned, lack of consistent support and monitoring creates confusion and inconsistency in application. Llanes & Llanes (2023) stressed the importance of teacher capacity-building in the rollout of any education reform. Without professional development and support networks, teachers may struggle to meet PAN's objectives. Strengthening institutional support is critical to ensure teachers can confidently and competently implement PAN.

E. *Suggestion for the sustainability or improvement of Project All Numerates (PAN)*

Thematic analysis of the respondents' suggestions for improving the implementation of Project All Numerates (PAN) revealed several key areas for enhancement. Teachers provided valuable insights based on their lived experiences and classroom practices, highlighting the need for both pedagogical

Table 21
Teacher’s suggestions for the sustainability or improvement of the project all numerates (PAN)

Emergent Theme	Code	Categorized Significant Statements
Enhanced Teacher Training and Capacity Building	Teacher Training, Professional Development	“Provide training and seminar”; “Conduct regular training on project-based learning, classroom management and creative math teaching”; “Conduct continuous training and coaching on differentiated instruction”; “Develop and disseminate engaging, interactive learning materials.”

Table 22
Teacher’s suggestions for the sustainability or improvement of the project all numerates (PAN)

Emergent Theme	Code	Categorized Significant Statements
Need for Systematic and Streamlined Assessment Tools	Simplified Assessment Tools	“Make/create a systematized way of reports”; “Use assessment tools that are efficient and realistic in time”; “Develop localized and contextualized numeracy materials.”

Table 23
Teacher’s suggestions for the sustainability or improvement of the project all numerates (PAN)

Emergent Theme	Code	Categorized Significant Statements
Strengthening Parental Involvement and Community Support	Parent Involvement, Community Participation	“Provide simple guides for parents”; “Let parents know the status of their child”; “Conduct orientation session for parents on their role”; “Encourage the community to support learners.”

Table 24
Teacher’s suggestions for the sustainability or improvement of the project all numerates (PAN)

Emergent Theme	Code	Categorized Significant Statements
Provision of Adequate and Localized Instructional Materials	Instructional Resources	“Give more instructional materials”; “Provide updated and sufficient learning materials”; “Use manipulatives, visual aids, and games”; “Provide localized/contextualized materials.”

and structural reforms. Through careful coding and categorization of significant statements, nine emergent themes were identified. These include strengthening teacher training, streamlining assessment tools, fostering parental and community involvement, and improving instructional resources. Other themes focus on foundational skills development, time management, curriculum alignment, learner engagement, and institutional support. Together, these themes offer a comprehensive roadmap for refining and sustaining PAN to improve numeracy outcomes among learners.

1) *Enhanced Teacher Training and Capacity Building*

Table 21 shows the summary of the teacher’s suggestions for the sustainability or improvement of the Project All Numerates (PAN).

Improving teacher training is a crucial strategy for sustaining Project All Numerates (PAN). Respondents emphasized the importance of regular and targeted professional development such as seminars on project-based learning, classroom management, and numeracy strategies. When teachers are equipped with updated pedagogical approaches and assessment methods, they can better address learning gaps and adapt to students’ needs. According to Bautista and Valtoribio (2024), continuous teacher capacity building significantly impacts instructional effectiveness and learner outcomes, especially in mathematics. Local Learning Action Cell (LAC) sessions also serve as effective platforms for peer coaching and best practice sharing. Hence, ongoing training builds teacher confidence and fosters innovation in numeracy instruction.

2) *Need for Systematic and Streamlined Assessment Tools*

Table 22 shows the summary of the teacher’s suggestions for the sustainability or improvement of the Project All Numerates (PAN).

Teachers suggested simplifying and systematizing the assessment process under PAN. Many highlighted the need for standardized reporting templates and assessments that are efficient and manageable within existing class schedules. The effectiveness of PAN could be undermined if evaluation tools

are inconsistent or overly complex. As cited by Alonzo et al. (2023), clear and structured assessment practices enable more accurate tracking of student performance and reduce teacher workload. Localization of tools also allows for better contextual alignment with learners’ realities. Therefore, systematic assessment ensures both usability and relevance in measuring learners’ numeracy progress.

3) *Strengthening Parental Involvement and Community Support*

Table 23 shows the summary of the teacher’s suggestions for the sustainability or improvement of the Project All Numerates (PAN).

Parental involvement and community engagement were widely recognized as critical components of successful PAN implementation. Teachers recommended providing parents with simple guides and regular updates about their child’s progress. This aligns with the findings of Chandratreya (2024) who assert that learners perform better when there is strong home-school collaboration. Furthermore, orientation sessions for parents and community partnerships can create a more supportive learning environment. Building a culture of shared responsibility strengthens learner motivation and reinforces numeracy learning at home.

4) *Provision of Adequate and Localized Instructional Materials*

Table 24 shows the summary of the teacher’s suggestions for the sustainability or improvement of the Project All Numerates (PAN).

Another key theme that emerged was the provision of appropriate instructional materials. Teachers advocated for the availability of sufficient, updated, and contextualized learning tools such as visual aids, manipulatives, and interactive games. The scarcity of such resources can hamper both instruction and learner engagement. A study by Rafael and Tamban (2022) underscores that locally developed materials, tailored to learners’ cultural and linguistic backgrounds, are more effective in enhancing comprehension. By ensuring that teachers have

Table 25
Teacher’s suggestions for the sustainability or improvement of the project all numerates (PAN)

Emergent Theme	Code	Categorized Significant Statements
Remediation and Focus on Foundational Skills (4Fs)	Remedial Intervention, 4F’s Emphasis	“Strengthen early numeracy interventions”; “Practice 4Fs during National Mathematics Program”; “More drills on 4Fs”; “Assess them in 4Fs regularly.”

Table 26
Teacher’s suggestions for the sustainability or improvement of the project all numerates (PAN)

Emergent Theme	Code	Categorized Significant Statements
Time Allocation and Program Scheduling	Time Allocation, Dedicated PAN Time	“Allot a specific time exclusive for Project All Numerates”; “Give specific time for Math”; “Create realistic timelines with buffer time”; “Project AN is good; more time for Math needed.”

Table 27
Teacher’s suggestions for the sustainability or improvement of the project all numerates (PAN)

Emergent Theme	Code	Categorized Significant Statements
Curriculum Alignment and Instructional Strategy	Alignment, Differentiated Instruction	“Ensure alignment to learners’ competencies”; “Use differentiated strategies to match student levels”; “Make lessons age-appropriate and engaging.”

Table 28
Teacher’s suggestions for the sustainability or improvement of the project all numerates (PAN)

Emergent Theme	Code	Categorized Significant Statements
Motivation and Learner Engagement	Student Motivation, Interest in Math	“Use games and hands-on activities”; “Provide engaging strategies”; “Math problems should be motivational”; “Use visual aids to re-engage students.”

Table 29
Teacher’s suggestions for the sustainability or improvement of the project all numerates (PAN)

Emergent Theme	Code	Categorized Significant Statements
Institutional and Administrative Support	Leadership Support, Resource Mobilization	“Reduce paperwork”; “Allocate funding for PAN”; “Assign non-teaching staff to handle assessments”; “Encourage LAC sessions for sharing practices.”

access to suitable teaching aids, PAN implementation can become more effective and inclusive.

5) Remediation and Focus on Foundational Skills (4Fs)

Table 25 shows the summary of the teachers’ suggestions for the sustainability or improvement of the Project All Numerates (PAN).

There was a strong call for intensified remedial instruction focusing on the Four Fundamental Operations (4Fs). Respondents suggested regular drills, intervention programs, and targeted assessment of learners’ mastery of basic operations. According to Njonge (2023) early mastery of foundational math skills is predictive of later academic success. Programs like PAN must therefore prioritize remediation efforts to close learning gaps and prepare students for higher-level numeracy. Structured 4Fs practice during dedicated sessions such as the National Mathematics Program can support struggling learners more effectively.

6) Time Allocation and Program Scheduling

Table 26 shows the summary of the teachers’ suggestions for the sustainability or improvement of the Project All Numerates (PAN).

Time constraints were among the most frequently cited issues, with suggestions to allocate dedicated time slots for PAN activities. Teachers emphasized the need for realistic scheduling and integration of PAN into the daily routine without overburdening academic loads. Trentepohl et al. (2022) observed that time-on-task is a crucial factor in student achievement in numeracy. Providing adequate time allows for meaningful engagement, in-depth remediation, and stress-free assessments. Prioritizing time allocation will ensure the program is sustainable and impactful.

7) Curriculum Alignment and Instructional Strategy

Table 27 shows the summary of the teachers’ suggestions for the sustainability or improvement of the Project All Numerates

(PAN).

Respondents pointed out the need for better alignment of PAN with existing curriculum standards and student learning levels. Instruction must be differentiated to cater to diverse learners, especially those with gaps in foundational skills. As supported by Adorni et al. (2024), curriculum alignment enhances instructional coherence and allows students to progress logically. Teachers must ensure that activities under PAN are grade-level appropriate, engaging, and relevant to learners’ real-life experiences. This strategic alignment will increase the efficacy of PAN and support mastery of key competencies.

8) Motivation and Learner Engagement

Table 28 shows the summary of the teachers’ suggestions for the sustainability or improvement of the Project All Numerates (PAN).

Maintaining student interest in mathematics was another major concern. Suggestions included using games, hands-on activities, and motivational strategies that stimulate curiosity and participation. Learner engagement is essential in overcoming math anxiety and building confidence, particularly among struggling learners. Studies by Jutin and Maat (2024), show that when students find math enjoyable and relatable, they are more likely to persist and succeed. Therefore, PAN must adopt engaging and student-centered approaches to keep learners motivated and focused on developing numeracy skills.

9) Institutional and Administrative Support

Table 29 shows the summary of the teachers’ suggestions for the sustainability or improvement of the Project All Numerates (PAN).

The final theme highlights the importance of administrative backing in the success of PAN. Teachers called for reduced paperwork, increased funding, clear policies, and shared leadership in implementing the project. Administrative support

enhances teacher morale and ensures smoother execution of programs. According to Alhammadi et al. (2024), strong leadership and resource mobilization are vital for education program sustainability. Empowering schools with the resources and autonomy needed to implement PAN effectively ensures that the initiative does not merely exist on paper but becomes a transformative tool for numeracy development.

F. Proposed Improvement Plan on the Implementation of Project All Numerates (PAN)

The following matrix presents a comprehensive improvement plan for the implementation of Project All Numerates (PAN), grounded in the key findings from both the quantitative and qualitative phases of the study. The matrix outlines specific areas for development, recommended interventions, responsible stakeholders, timelines, and estimated budgetary requirements. This plan is designed to address identified challenges such as inadequate learning materials, teacher training gaps, assessment inconsistencies, low learner engagement, and limited parental involvement. By aligning strategies with actual data, the improvement plan aims to enhance the effectiveness, sustainability, and impact of PAN across the participating schools.

The improvement plan outlined in the matrix was carefully designed to address the multifaceted challenges and areas of development identified in the implementation of Project All Numerates (PAN). The plan integrates both statistical data and thematic analyses to ensure a data-driven, context-specific, and actionable approach.

Teacher Training and Capacity Building emerged as a critical area of improvement. Despite strong agreement among teachers regarding PAN’s instructional components, qualitative responses indicated a need for enhanced and continuous professional development. Training on differentiated instruction, foundational numeracy strategies, use of numeracy tools, and classroom-based assessments are necessary. These efforts not only support content delivery but also empower teachers to handle diverse learning needs effectively. An estimated annual budget of ₱60,000 per division (covering training logistics, speaker fees, materials, and meals) is allocated for this initiative.

Development and Distribution of Localized Instructional Materials is essential due to the consistent mention of resource inadequacy. Teachers emphasized the lack of printed and digital learning materials, manipulatives, and visual aids tailored to the learners' needs. Thus, developing contextually appropriate and engaging materials including activity sheets, games, and flashcards will help bridge gaps in learning. The proposed ₱150,000 allocation covers design, printing, distribution, and digital formatting.

Systematic and Streamlined Assessment Tools are also a priority. The data revealed inconsistencies in the implementation of PAN assessments across schools. Teachers called for standardized, yet flexible tools aligned with curriculum standards and learner readiness. By designing simplified templates, consolidated reporting systems, and a learner-tracking mechanism, the project can ensure consistency

Table 30
Proposed improvement plan on the implementation of project all numerates (PAN)

Focus Area	Findings	Recommended Intervention	Responsible Entity	Time Frame	Estimated Budget (₱)
Teacher Training and Capacity Building	Lack of consistent training on assessment tools, differentiated instruction, and numeracy strategies	Conduct quarterly in-service trainings/seminars on PAN and numeracy pedagogy (venue, materials, honoraria, meals).	School Heads, Division Math Coordinators	Quarterly	₱75,000/year
Instructional and Learning Materials	Inadequate supply of localized and contextualized resources	Print/distribute contextualized modules, visual aids, math games, and manipulative kits.	Curriculum Writers, LGU, DepEd Central Office	Semi-Annual	₱100,000/year
Assessment and Monitoring Tools	Absence of standardized templates and time-consuming assessments	Develop user-friendly digital and printed assessment tools and consolidation templates.	Division Office, ICT Coordinators	Within 6 months	₱60,000 (one-time)
Foundational Skills and Remediation	Low mastery in 4Fs (MDAS), significant learning gaps among students	Conduct daily remediation with printed activity sheets, peer tutorials, and math games.	Teachers, Learning Support Coordinators	Weekly	₱50,000/year
Time Management and Program Scheduling	PAN activities overlap with core academic tasks	Allocate a fixed weekly schedule for PAN and integrate with MAPEH or ESP time as needed.	School Heads, Class Schedulers	Start of each SY	₱10,000
Curriculum Alignment	Activities not always aligned with learners’ grade-level competencies	Revise and validate PAN content aligned with MELCs and numeracy stages; printing and workshop materials.	Curriculum Developers, Teachers	Annually	₱40,000/year
Learner Engagement and Motivation	Learners lack interest in math; many feel anxious or disengaged	Provide engaging strategies, games, reward systems, interactive activities (materials, prizes, charts, flashcards).	Teachers, Instructional Coaches	Daily	₱30,000/year
Parental and Community Involvement	Weak home reinforcement; parents unaware of their role	Conduct parent orientations, home numeracy guides, community math exhibits.	School Admin, PTAs	Quarterly	₱35,000/year
Teacher Workload and Administrative Support	Teachers overwhelmed with paperwork	Assign non-teaching staff/utility staff to handle PAN documentation; purchase logbooks and folders.	School Heads, Admin Staff	Ongoing	₱20,000/year
Inclusivity and Differentiation	Learners show diverse readiness levels and learning needs	Provide SPED-friendly numeracy resources and implement pull-out/remedial programs with differentiated tasks.	SPED Coordinators, Teachers, Guidance Counselors	Ongoing	₱50,000/year

and reliability in evaluation. The ₱80,000 budget includes template design, software tools, and orientation sessions for users.

Remediation Programs and Foundational Skills Development focus on reinforcing the 4Fs fundamental operations essential to numeracy. These were identified as areas where learners struggled the most. Implementing regular remediation sessions, especially for non-numerates and slow learners, is critical. These sessions should be interactive and gamified to improve learner interest. A budget of ₱100,000 annually includes hiring remediation facilitators, printing practice drills, and materials for games and assessments.

Parental and Community Engagement was identified as a crucial but underutilized support area. Teachers reported insufficient home reinforcement, limited parent involvement, and communication gaps. Conducting orientations, home learning guide distributions, and parent-teacher partnership meetings can build a culture of support at home. A modest ₱40,000 is allocated to materials, invitations, and snacks for quarterly parent meetings.

Time Management and Scheduling Adjustments are necessary to reduce overload and improve teacher focus. The overlap of PAN with regular class schedules and administrative tasks was a common concern. The recommendation includes creating dedicated timeslots for PAN activities and minimizing overlapping duties. While this item may not need a large budget, a ₱20,000 fund is set aside for creating schedules, coordination meetings, and minor adjustments in class logistics.

Institutional and Administrative Support must be strengthened to sustain the program. The study emphasized the need to reduce teacher workload, allocate specific roles (e.g., a PAN coordinator), and ensure leadership involvement. Allocating ₱50,000 annually can support advocacy campaigns, stakeholder coordination, and policy implementation to institutionalize support mechanisms.

Learner Motivation and Engagement Strategies are vital, especially among students with low confidence or negative math attitudes. The improvement plan suggests the integration of fun, relatable activities such as games, peer mentoring, and visual storytelling in math learning. An annual ₱30,000 budget will cover games, activity design, learner incentives, and motivational materials.

Strengthening Early Assessment and Progress Monitoring is necessary to ensure learners are placed at appropriate intervention levels. By reinforcing early diagnostic tools and tracking systems, schools can identify struggling learners and provide immediate support. This initiative complements all other strategies, and a ₱40,000 budget supports digital tracking, initial testing materials, and teacher training.

5. Summary, Conclusion and Recommendations

This section presents the summary of the findings, the conclusions arrived at, and the recommendations offered by the researcher.

A. Summary of Findings

Based on the respondents' responses gathered through the

questionnaire, the data were analyzed, and the following are the summary of the interpretations in the findings.

1) Demographic Profile of the Respondents

1. Age. Majority of the teacher-respondents belong to the age group 45 years old and above, with 36 or 29.50%, followed by 27-32 years old with 31 or 25.40%.
2. Sex. Most of the respondents were female, with 90 or 73.80%, while 32 or 26.20% were male.
3. Highest Educational Attainment. Majority of the respondents were MA/MS units' earners, with 79 or 64.80%, followed by BA/BS graduates with 28 or 23.00%.
4. Years in teaching. Most teacher-respondents had 6-10 years of teaching experience, with 41 or 33.60%, followed by 11-15 years with 35 or 28.70%. The mean years in teaching was 10.79 years.
5. Academic Rank. Majority of the respondents held the Teacher I position, with 67 or 54.90%, followed by Teacher III with 30 or 24.60%.
6. Grade Level taught. Most respondents handled Grade 4, with 43 or 35.20%, followed closely by Grade 5 with 42 or 34.40%.

2) Teacher's Evaluation on the Implementation of Project All Numerates (PAN)

1. Objectives. Teachers strongly agreed that the objectives of Project All Numerates were clearly stated and relevant, as reflected in the weighted mean interpreted as "Agree."
2. Instructional Strategies. The respondents evaluated that instructional strategies employed under PAN were appropriate and aligned with learners' needs, with a mean indicating "Strongly Agree."
3. Assessment techniques. Teachers strongly agreed on the effectiveness and appropriateness of assessment techniques used in PAN, indicating areas for improvement.
4. Monitoring and Evaluation. Teachers strongly agreed that monitoring and evaluation processes were in place, although further streamlining was recommended.

3) Test of Difference in Parent's Influence of Parental Involvement in Numeracy Learning when Grouped According to their Demographic Profile

1. Objectives. The computed p-values for age (0.173), sex (0.714), highest educational attainment (0.353), years in teaching (0.648), academic rank (0.736), and grade level taught (0.941) were all greater than ($>$) the 0.05 alpha level of significance. Hence, the null hypothesis is accepted. Therefore, there is no significant difference in the teachers' evaluation on the implementation of Project All Numerates in terms of objectives when grouped according to their demographic profile.
2. Instructional Strategies. The computed p-values for age (0.666), sex (0.808), highest educational attainment (0.360), years in teaching (0.652), academic rank (0.845), and grade level taught (0.358)

were all greater than (>) the 0.05 alpha level of significance. Hence, the null hypothesis is accepted. Therefore, there is no significant difference in the teachers' evaluation on the implementation of Project All Numerates in terms of instructional strategies when grouped according to their demographic profile.

3. Assessment techniques. The computed p-values for age (0.219), sex (0.542), highest educational attainment (0.205), years in teaching (0.312), academic rank (0.566), and grade level taught (0.646) were all greater than (>) the 0.05 alpha level of significance. Hence, the null hypothesis is accepted. Therefore, there is no significant difference in the teachers' evaluation on the implementation of Project All Numerates in terms of assessment techniques when grouped according to their demographic profile.
4. Monitoring and Evaluation. The computed p-values for age (0.582), sex (0.799), highest educational attainment (0.624), years in teaching (0.823), academic rank (0.725), and grade level taught (0.172) were all greater than (>) the 0.05 alpha level of significance. Hence, the null hypothesis is accepted. Therefore, there is no significant difference in the teachers' evaluation on the implementation of Project All Numerates in terms of monitoring and evaluation when grouped according to their demographic profile.

4) Challenges in the Implementation of the Project All Numerates

1. What are the Challenges You Encountered in the Implementation/conduct of Project All Numerates (PAN)?

Teachers reported several challenges in implementing PAN. A major concern was the lack of learning resources and instructional materials, including inadequate assessment tools and digital aids. Time constraints and added administrative tasks made it difficult to manage both PAN and regular classroom duties. Many learners struggled with basic math skills such as the four fundamental operations, while others had poor reading comprehension, affecting their understanding of math problems. Low motivation and interest in mathematics were also observed among some learners. Teachers found it difficult to assess progress due to the absence of standardized tools and faced varied learner abilities, making differentiated instruction challenging. The lack of parental support and limited teacher preparation further hindered effective implementation.

2. What Suggestions Would You Like to Suggest for the Sustainability or Improvement of Project All Numerates (PAN)?

To improve PAN, teachers suggested providing regular training and capacity-building programs focused on numeracy teaching strategies. They recommended developing standardized and easy-to-use assessment tools aligned with learners' competencies. Strengthening parental involvement through orientations and support materials was also emphasized. More instructional resources, including localized and engaging materials, should be provided. Teachers

recommended allocating specific time for PAN and reducing administrative tasks to focus on instruction and remediation. Regular intervention sessions on foundational math skills (4Fs) and the use of engaging methods like games and visuals can boost learner interest. Lastly, institutional support through funding, recognition, and additional personnel is needed to sustain effective implementation.

5) Proposed Improvement Plan on the Implementation of Project All Numerates (PAN)

Based on the findings, a comprehensive improvement plan was proposed focusing on training, materials, time allocation, community partnership, remediation, and support systems. Each action item was aligned with identified challenges and included recommended budgetary allocations to ensure realistic and sustainable implementation.

B. Conclusions

Based on the foregoing results of the study, the researcher concluded that:

1. Most of the teacher-respondents were female, aged 45 years old and above, with a majority holding MA/MS units and possessing 6 to 10 years of teaching experience. Most held the Teacher I rank and were handling Grade 4 or Grade 5 classes.
2. Teachers generally agreed with the implementation of Project All Numerates (PAN), particularly on its clearly stated objectives, appropriate instructional strategies, and adequate monitoring and evaluation processes. However, moderate agreement was recorded on the assessment techniques used, indicating the need for refinement.
3. No significant differences were found in the teachers' evaluation of the implementation of PAN when grouped according to their demographic profile in terms of objectives, instructional strategies, assessment techniques, and monitoring and evaluation. This suggests a consistent perception among respondents regardless of background.
4. Qualitative data revealed key challenges in the implementation of PAN, including the lack of instructional resources, time management issues, foundational math skill gaps among learners, poor reading comprehension, low motivation and engagement, difficulties in assessment and monitoring, individual learning differences, minimal parental support, and limited teacher training and program support.
5. In response to these challenges, teachers suggested providing regular capacity-building trainings, developing systematic and localized assessment tools, allocating sufficient instructional materials, increasing intervention time, strengthening home-school partnerships, and enhancing administrative support to ensure smoother implementation.
6. A comprehensive improvement plan was formulated, addressing the identified gaps and incorporating strategies related to training, material development,

time allocation, community engagement, remediation, and institutional support. The plan includes corresponding budgetary provisions to ensure feasible and sustainable execution of the Project All Numerates.

C. Recommendation

In view of the conclusion of the study, the following are recommended.

1) Enhance Teacher Training and Capacity Building

The Department of Education (DepEd), in collaboration with school divisions, may conduct regular, targeted professional development programs focusing on numeracy instruction, differentiated teaching strategies, creative assessment techniques, and project-based learning to strengthen the implementation of PAN.

2) Develop and Provide Contextualized Instructional Materials

School Administrators may prioritize the creation and distribution of localized and engaging instructional materials, including visual aids, manipulatives, and digital resources, to support diverse learner needs and improve foundational numeracy skills.

3) Streamline Assessment Tools and Reporting Templates

School Administrators may provide standardized, easy-to-use assessment and monitoring tool to institutionalize and ensure consistency, reduce teacher workload, and provide reliable data on learner progress across different schools.

1. Allocating Sufficient Time for PAN Implementation

Schools Administrators are encouraged to schedule dedicated instructional time for PAN activities within the regular class program and integrate remediation sessions that focus on the four fundamental operations (4Fs) to support struggling learners.

2. Strengthening Parental Involvement and Community Support

School Administrators and Teachers may conduct orientation programs and simplified home-support guides should be provided to parents to equip them with strategies in assisting their children's numeracy development. Schools may foster community engagement through local partnerships, volunteer mentoring, and parent-teacher collaboration.

3. Enhance Learner Engagement and Motivation

Teachers may incorporate game-based learning, interactive activities, and real-life problem-solving tasks to make numeracy instruction more engaging and meaningful for learners, particularly those with low interest or confidence in mathematics.

4. Ensure Administrative and Institutional Support

DepEd may consider reducing teachers' non-instructional workload and assigning specific personnel for PAN-related documentation and consolidation. Additionally, increased funding may be allocated to support materials, training, and implementation logistics.

5. Monitor and Evaluate Program Implementation

A robust evaluation mechanism may be established by the school administrators to continuously monitor the effectiveness

of PAN implementation, identify areas for improvement, and scale up best practices across schools.

6. Implement the Proposed Improvement Plan

The improvement plan formulated in this study, which aligns identified gaps with actionable strategies and budgetary considerations, may be considered and reviewed and possibly be adopted, and customized by school divisions to fit their local context.

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