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Performance in Rapid Mathematics Assessment of Grade 3 learners of Inaban Elementary School: Basis for contextualized learning activity sheets

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Abstract

Aim: This study examined the proficiency levels of Grade 3 learners in the Rapid Mathematics Assessment (RMA) and used the findings as a basis for developing contextualized learning activity sheets in Mathematics 3 to support improved numeracy instruction.

Methodology: The study employed a quantitative developmental-descriptive research design involving 41 Grade 3 learners from Inaban Elementary School selected through purposive sampling. The Rapid Mathematics Assessment served as the primary instrument to determine learners' proficiency levels. Based on the results, contextualized learning activity sheets were developed using Kemp's Instructional Design Model and evaluated by Grade 3 teachers and instructional material experts from the Dupax Del Norte I District.

Results: Findings revealed that 70.73% of the learners were classified as Not Proficient, 26.83% as Low Proficient, and only 2.44% as Nearly Proficient, indicating that most learners had not yet developed essential mathematical competencies. In response, contextualized learning activity sheets were developed targeting the least mastered competencies. The materials were evaluated as highly acceptable in terms of content, format, presentation and organization, accuracy, and up-to-datedness of information.

Conclusion: The findings suggest that contextualized learning activity sheets may contribute to improving learners' mathematical proficiency and enhance instructional practices by providing meaningful and context-based learning activities. The materials may serve as supplementary instructional resources to support data-driven teaching and improve numeracy development among elementary learners.

Keywords: *Rapid Mathematics Assessment, contextualized learning activity sheets, mathematical proficiency*

INTRODUCTION

Mathematics education is a cornerstone of cognitive and problem-solving development, particularly during the formative years of schooling. Early grade mathematics proficiency lays the groundwork for future academic success and real-world applications (Braak et al. 2021). Over the last decade, research has underscored the importance of developing foundational mathematical skills according to Park et al. (2016; as cited in Tolibas, 2025) by focusing on early proficiency indicators.

However, in the present era, learners continue to face significant challenges in solving mathematical problems, a concern reflected in the 2022 Programme for International Student Assessment (PISA) report, which shows a decline in learners' proficiency levels (OECD, 2023). Notably, Filipino learners were among the lowest-performing groups across all participating countries in the 2022 PISA.

Studies have highlighted systemic issues, such as inadequate instructional materials, insufficient teacher training, and large class sizes, that impede effective instruction (Graham, 2023). These barriers often result in learners struggling with fundamental mathematical concepts, ultimately affecting their readiness for more complex topics in the higher grades.

To address this gap, the Department of Education (DepEd) introduced the Rapid Mathematics Assessment (RMA), a diagnostic tool designed to identify learners' strengths and gaps from kindergarten to Grade 2. RMA

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measures number recognition, basic operations, place value, measurement, and problem-solving skills (Chiu et al., 2020; Lopez-Pedersen et al., 2022). It categorizes learners into proficiency levels, such as highly proficient, proficient, nearly proficient, low proficiency, and non-proficient, providing timely and reliable data for intervention (Crannell & Brasel, 2020; Zepeda et al., 2020).

Further studies by Molanda, Martinez, and Ambos (2024) have revealed that mathematics remains difficult for learners due to its abstract nature, emphasizing the need for meaningful and contextualized instruction. It also highlights issues in learner engagement and retention when concepts are not connected to real-life experiences. However, these studies have not sufficiently addressed how assessment data, particularly from rapid mathematics assessments, can be directly utilized to inform the development of contextualized instructional materials, nor have that focused on systematically targeting least-mastered competencies. Additionally, gaps persist in aligning assessment results with practical, time-efficient, and accurate problem-solving strategies in classroom instruction. To address these limitations, the present study bridges assessment and instruction by linking Rapid Mathematics Assessment results to the development of contextualized learning activity sheets, specifically designed to target learners' least-mastered competencies, thereby offering a more responsive and practical approach to improving mathematical understanding and performance.

In relation to these identified gaps, challenges associated with rapid mathematics become more evident in actual classroom settings. Rapid assessments often create stress, which reduces accuracy and efficiency, making it difficult for learners to demonstrate their true competence. This struggle is evident in the performance of Grade 3 learners at Inaban Elementary School, where they are assessed not only in terms of accuracy but also in their ability to solve problems within a limited period. Mathematics assessment is an important tool for evaluating learners' understanding, computational skills, and problem-solving abilities. It highlights both strengths and weaknesses in learning, and for grade 3 learners, rapid mathematics assessment results reveal significant challenges in handling time constraints while solving problems. These outcomes are crucial for designing interventions that address learners' needs. Based on the assessment results, contextualized learning activity sheets can help improve accuracy, reasoning, and speed while building confidence in problem-solving.

Review of Related Literature and Studies

Formative assessment can serve as an effective pedagogical approach for supporting and strengthening the development of higher-order thinking skills in mathematics (Moyo, 2022). Evidence shows that formative assessment practices significantly improve students' mathematics performance, as demonstrated in a study conducted in the southern region of Turkey (Kultur & Kultu, 2021).

Rapid Mathematics Assessment (RMA)

One example of a formative assessment approach is the Rapid Mathematics Assessment (RMA), which evaluates learners' ability and proficiency in solving mathematical problems within a limited time. RMA provides real-time insights into students' learning and serves as a predictor of academic success, enabling teachers to identify learning gaps early (Dela Cruz et al., 2023). Empirical studies further support the effectives of RMA cross different contexts. In the study of Tolibas (2025), most learners in Grades 1-3 in a public elementary school in Tacloban City were classified under the emerging levels (Low Proficient and Non-Proficient), with only a few reaching the Highly Proficient level. This was also evident in the study of Paguia & Montero (2026) which revealed that 50% of their learners in Carrascal National High School were classified as low proficient. In contrast, Dulay (2025), through a pre-test and post-test intervention conducted among Grade 2 pupils in Binuan Elementary School, reported a statistically significant improvement, from "Nearly Proficient" in the pre-test to "Highly Proficient" in the post-test, after using RMA as a diagnostic and formative tool. Similarly, Pitogo and Oco (2023) observed that pupils in Iponan Elementary School (West II District, Division of Cagayan de Oro City) achieved an outstanding level of overall mathematics performance, indicating that learners in certain contexts can attain high proficiency.

Contextualized Learning Activity Sheets

Contextualized Learning Activity Sheets are learner-centered instructional materials that integrate meaningful, real-world activities to make lessons more relevant and engaging. International studies support the effectiveness of such materials in improving student learning outcomes. For instance, research has shown from Niyibizi & Mutarutinya (2024) that the implementation of innovative assessment strategies significantly enhances learners' comprehension, engagement, and overall performance in Gwanda District, Rwanda. In the Philippine context, several studies further affirm these findings. Abenir (2025) demonstrated that integrating real-world scenarios into science education

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through contextualized activity sheets significantly improved students' understanding and engagement. Similarly, Sambayon et al. (2023) found that contextualized learning materials had a measurable positive impact on students' academic performance. This is further supported by Paguia & Montero (2026), who reported that contextualized learning activity sheets improved the mathematical performance of Grade 9 students at Carrascal National High School. Moreover, Ogates et al., (2023) confirmed that the use of such materials significantly enhanced learning outcomes.

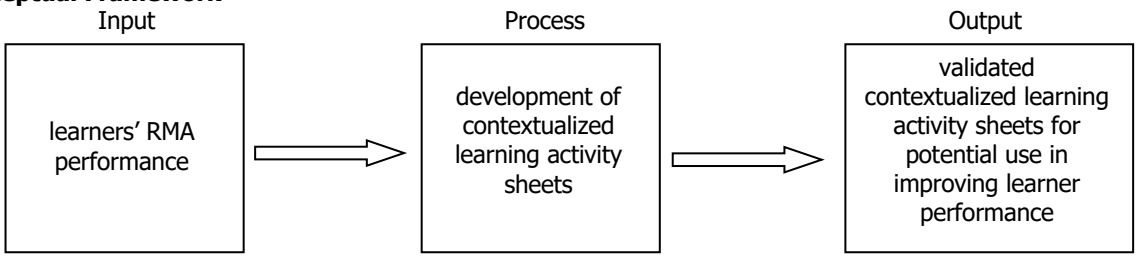
Synthesis

This suggests that the Rapid Mathematics Assessment (RMA) can support the development of learners' mathematical proficiency, especially when integrated with contextualized learning activity sheets that enhance engagement and participation. Moreover, considering students varied problem-solving strategies allows teachers to adapt instruction to diverse learning needs.

Theoretical Framework

Instructional design models is an educational approach where teachers demonstrate concepts or skills to facilitate student learning (Loeser, 2021). As a systematic process, instructional design guides the development of effective instructional materials based on learners' needs and learning goals (Bajracharya, 2020). One widely used framework is the Kemp Instructional Design Model, developed by Jerrold E. Kemp. This model emphasizes a flexible, non-linear structure where instructional elements such as objectives, learner characteristics, content, and evaluation are interconnected and continuously revised (Bajracharya, 2020). It allows educators to address learning gaps by starting at any stage of the design process and adapting instructions based on learners' needs. Thus, Kemp Instructional Design Model provides a suitable theoretical foundation for designing contextualized learning materials that are responsible for assessment of data and tailored to learners' needs.

Conceptual Framework



The paradigm of the study follows the input-process-output (IPO) framework. The input represents the respondents' initial level of performance in the Rapid Mathematics Assessment (RMA). The process covered the development and evaluation of contextualized learning activity sheets tailored to address respondents' needs. Therefore, the output of the study is the set of validated contextualized learning activity sheets, which are deemed appropriate and potentially useful for enhancing learner performance when implemented in instructional settings.

Statement of the Problem

Previous studies have examined learners' mathematical performance and identified several contributing factors to low numeracy achievement. However, many of these studies primarily focus on describing learners' difficulties without translating the findings into structured instructional interventions that directly address identified learning gaps. As a result, learners who struggle with foundational mathematical competencies often receive limited targeted instructional support.

In the context of Inaban Elementary School, the results of the Rapid Mathematics Assessment reveal that many Grade 3 learners demonstrate low levels of mathematical proficiency. These results highlight the need for instructional strategies and learning materials that respond directly to learners identified needs and least-mastered competencies.

It highlights that mathematics plays a crucial role in developing learners' logical reasoning, analytical thinking, and problem-solving skills. Despite its importance in the elementary curriculum, many learners continue to experience difficulties in understanding and mastering fundamental mathematical concepts. These challenges are often reflected in learners' performance in diagnostic and formative assessments, particularly in rapid mathematics assessments where both accuracy and speed are required.

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This study sought to determine the performance of Grade 3 learners in the Rapid Mathematics Assessment and to develop contextualized learning activity sheets based on the identified learning gaps.

Research Objectives

General Objective

To determine the performance of Grade 3 learners of Inaban Elementary School in the Rapid Mathematics Assessment as a basis for developing contextualized learning activity sheets.

Specific Objectives

1. To determine the level of performance of Grade 3 learners in the Rapid Mathematics Assessment.
2. To develop contextualized instructional materials in Mathematics 3 using Kemp's Instructional Design Model to address the least-mastered competencies of the learners.
3. To evaluate the developed learning activity sheets as assessed by Grade 3 teachers and instructional material experts from Dupax Del Norte I District in terms of:
    - Content
    - Format
    - Presentation and organization
    - Accuracy
    - Up-to-datedness of information
4. To determine whether there is a significant difference between the evaluations of Grade 3 teachers and instructional material experts regarding the developed learning activity sheets in terms of:
    - Content
    - Format
    - Presentation and organization
    - Accuracy
    - Up-to-datedness of information

Research Questions

1. What is the level of performance of Grade 3 learners in the Rapid Mathematics Assessment?
2. What contextualized instructional material in Mathematics 3 can be developed using Kemp's Instructional Design Model to address the least-mastered competencies of the learners?
3. How do Grade 3 teachers and instructional material experts from Dupax Del Norte I District evaluate the developed learning activity sheets in terms of:
    - Content
    - Format
    - Presentation and organization
    - Accuracy
    - Up-to-datedness of information?
4. Is there a significant difference between the evaluations of Grade 3 teachers and instructional material experts regarding the developed learning activity sheets in terms of:
    - Content
    - Format and presentation
    - Presentation and organization
    - Accuracy
    - Up-to-datedness of information?

Hypothesis

(H_0): There is no significant difference between the evaluations of Grade 3 teachers and instructional material experts regarding the developed contextualized learning activity sheets in terms of content, format and presentation, organization, accuracy, and up-to-datedness of information.

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(H_1): There is a significant difference between the evaluations of Grade 3 teachers and instructional material experts regarding the developed contextualized learning activity sheets in terms of content, format, presentation and organization, accuracy, and up-to-datedness of information.

METHODS

Research Design

This study employed a quantitative developmental-descriptive research design to describe and interpret the existing conditions of the variables examined in this investigation. This design was specifically chosen to determine the performance of Grade 3 learners of Inaban Elementary School in the Rapid Mathematics Assessment. The quantitative approach enabled the systematic collection and analysis of numerical data across various areas of mathematics, allowing the researchers to objectively measure learners' performance and examine possible relationships among the variables involved.

Population and Sampling

This study targeted 41 Grade 3 learners from Inaban Elementary School who were selected through purposive sampling based on their availability and participation. Purposive sampling was used to ensure that participants could provide meaningful data on learners' performance in the Rapid Mathematics Assessment. In addition, the study was evaluated by four experts composed of two instructional material experts and two Grade 3 Mathematics teachers of Dupax Del Norte I District to ensure the validity, quality, and appropriateness of the learning materials used.

Instruments

This study utilized two primary instruments to gather data: the Rapid Mathematics Assessment (RMA) and an evaluation rubric used to validate the developed contextualized learning activity sheets.

The Rapid Mathematics Assessment (RMA) is a standardized diagnostic tool developed by the Department of Education (DepEd) to measure learners' mathematics proficiency and identify numeracy gaps for Grades 1–3. In this study, the official DepEd RMA toolkit was utilized. The instrument is implemented nationwide using standardized administration and scoring procedures. It has undergone validation by curriculum specialists, mathematics supervisors, and DepEd personnel to ensure alignment with the Most Essential Learning Competencies (MELCs). Its reliability is supported by uniform testing conditions and scoring guidelines, which allow consistent and comparable results across schools. Learners' performance is classified using a criterion-referenced scale with proficiency levels ranging from Not Proficient, Low Proficient, Nearly Proficient, Proficient, to Highly Proficient.

The contextualized learning activity sheets (LAS) developed in this study were systematically designed using Kemp's Instructional Design Model and refined through iterative feedback and evaluation. To assess the quality and acceptability of the materials, an evaluation instrument adapted from the DepEd Evaluation Rating Sheet for Print Resources was employed. The instrument utilized a four-point Likert scale across five domains: content, format, presentation and organization, accuracy, and up-to-datedness of information.

The rating scale and its corresponding interpretation are presented as follows:

- 4.00 – 5.00 – *Very Satisfactory* (The material fully meets the criteria; no or very minimal revisions are needed)
- 3.00 – 3.99 – *Satisfactory* (The material meets most criteria; minor revisions are required)
- 2.00 – 2.99 – *Fair* (The material partially meets the criteria; moderate revisions are needed)
- 1.00 – 1.99 – *Poor* (The material does not meet the criteria; major revisions are required)

The mean scores obtained from the evaluators were interpreted based on this scale to determine the overall quality and acceptability of the developed learning activity sheets.

The instrument consisted of the following domains:

- Domain 1: Content – Evaluates the quality and appropriateness of the material in terms of alignment with learning objectives, suitability to learners' developmental level, promotion of higher-order thinking skills (e.g., critical thinking, creativity, inquiry, and problem-solving), and absence of bias. It also assesses the ability of the material to engage learners' interest.
- Domain 2: Format – Assesses the technical presentation of the material, including layout, clarity of visuals, appropriateness of design elements, and overall readability and organization of instructional components.

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- Domain 3: Presentation and Organization – Examines the clarity, logical sequencing, coherence of ideas, and effectiveness of instructions. It also evaluates whether the language and structure are appropriate to the learners' level.
- Domain 4: Accuracy – Evaluates the correctness of the content in terms of conceptual, factual, grammatical, and computational accuracy, including the absence of typographical errors and misleading information.
- Domain 5: Up-to-datedness of Information – Determines the relevance and currency of the material, including alignment with current curriculum standards and incorporation of real-life and contextualized examples.

In addition, the developed learning activity sheets underwent face and content validation by Grade 3 mathematics teachers and instructional material experts from the Dupax Del Norte I District. Their feedback focused on improving clarity, relevance, instructional quality, and contextual appropriateness. All comments and recommendations were systematically reviewed and incorporated into the revision process to ensure that the final materials met established standards for effective instructional resources.

Data Collection

The study followed a systematic data collection procedure.

First, the RMA results retrieval was conducted using data previously gathered and tabulated by the Department of Education (DepEd) from 41 Grade 3 learners at Inaban Elementary School (SY 2025–2026), with formal permission secured from the School Head.

Second, the identification of least mastered competencies was carried out through analysis of the RMA results to determine learners' areas of difficulty.

Third, the development of the Learning Activity Sheets (LAS) was based on these findings. The revised LAS were contextualized, learner-centered, and designed following the Kemp Instructional Design Model to ensure alignment of objectives, content, and activities.

Fourth, the evaluation of the LAS was conducted by Grade 3 teachers and instructional material experts from Dupax Del Norte I District.

Finally, a comparative analysis of the evaluators' assessments was performed, with emphasis on descriptive statistics to examine patterns and consistency in their ratings. Any inferential analysis conducted was treated as exploratory due to the limited number of evaluators.

Treatment of Data

Frequency and percentage were used to describe the learners' proficiency distribution, while the mean and standard deviation were used to measure central tendency and variability. An independent samples t-test was also employed to determine significant differences between the evaluations of Grade 3 teachers and instructional material experts. These statistical tools ensured an objective interpretation of both learner performance and material evaluation, forming the basis for designing and validating contextualized learning activity sheets. Although an independent samples t-test was utilized, its results were treated as exploratory due to the very small sample size ($n = 2$ per group), which limits statistical reliability and generalizability. Therefore, greater emphasis was placed on descriptive findings and consistency of responses across evaluators.

Ethical Considerations

Permission was formally sought from the School Head of Inaban Elementary School to access the results of the first administration of the Rapid Mathematics Assessment (RMA) among Grade 3 learners, ensuring that the study was conducted with proper authorization and ethical compliance. Ethical standards were strictly observed throughout the study, including obtaining informed consent from learners and their parents or guardians, maintaining confidentiality of all data, and using all information solely for research purposes.

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RESULTS and DISCUSSION

After collecting information to address the concerns of this research endeavor, the results are divulged in the succeeding section with a discussion of the analytical and triangulation processes undertaken.

1. Learners' level of performance in the Rapid Mathematics Assessment

To determine the level of performance of Grade 3 learners in Rapid Mathematics Assessment, the researchers used the results of the RMA that were administered at the beginning of the school year 2025 – 2026, covering the least mastered competencies based on the approved curriculum guide. The results of these assessments are presented in Table 1.

Table 1
Frequency and percentage distribution of the respondents' level of performance in the Rapid Mathematics Assessment

Score Range	Frequency (f)	Percentage (%)	Level of Performance	Interpretation
85 – 100%	0	0.00	At Grade Level	Highly Proficient
75 – 84%	0	0.00	Transitioning	Proficient
50 – 74%	1	2.44	Developing	Nearly Proficient
25 – 49%	11	26.83	Emerging	Low Proficient
Below 25%	29	70.73	Emerging	Not Proficient
Total	41	100.00		

The table shows that most of the respondents (70.73%) scored below 25%, which falls under the emerging level and is interpreted as Not Proficient. Only one respondent, or 2.44% reached a developing level, while no one achieved a grade level or transitioning proficiency. This indicates that most Grade 3 learners were not proficient in the Rapid Mathematics Assessment conducted at the beginning of the school year.

It is worth noting, as shown by their frequency of 29 or 70.73 percent, that several respondents were at a lower level of proficiency in the Rapid Mathematics Assessment. This shows that their mathematical skills are still in the beginning stage and are not yet fully developed, which is also consistent with the results found by Paguia & Montero (2026). Similar findings were reported by Tolibas (2025), who noted that grade 3 learners were categorized as Not Proficient and in need of targeted intervention programs to enhance their foundational mathematics skills.

Based on the above-presented results addressing the first research question, it can be deduced that the performance of Grade 3 learners at Inaban Elementary School in the Rapid Mathematics Assessment needs reinforcement, which led to the development of contextualized learning activity sheets by the researchers.

2. Development of an Instructional Material in Mathematics 3 Based on Kemp's Instructional Design to Improve the Least Mastered Competencies of the Respondents

The results of the Rapid Mathematics Assessment revealed that most learners scored below 25%, which is not proficient. This shows that most of them have not yet developed the essential mathematical skills needed for their grade level and therefore need further instructional support.

In response, a contextualized learning activity sheet in Mathematics 3 was developed using Kemp's Instructional Design Model. The material was designed to address the least mastered competencies found in the assessment results, following Kemp's model, with the following essentials:

1. Learners' characteristics shown based on their current proficiency level
2. Specified learning aims that target the least mastered skills
3. Selected instructional strategies and activities appropriate to learners' needs and learning styles
4. Organized content into sequenced lessons with clear examples and guided practice; and
5. Developed evaluation tools to measure learners' progress after using the material

This approach is supported by literature emphasizing that, by following a systematic process such as Kemp's Instructional Design Model, it is possible to design need-based instructional materials (Padugupati et aL., 2021).

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The developed contextualized learning activity sheets aimed to reinforce foundational mathematical skills through engaging exercises, visual representations, and real-life problem situations. These materials serve as supplementary tools to help improve learners' understanding, retention, and mastery of the least-mastered competencies.

An overview of the contextualized learning activity sheets is presented hereafter.

Title: LEARNING ACTIVITY SHEET IN MATHEMATICS 3: SOLVING MATH PROBLEM

Objectives:
1. To help learners develop conceptual understanding of division through meaningful and relatable contexts.
2. To strengthen problem-solving and analytical skills using structured, step-by-step learning activities.
3. To encourage independent and self-paced learning through simplified instructions and visual aids.

Key Activities:
1. Draw Equal Group: Learners solve word problems by grouping objects equally, fostering understanding of division as equal sharing.
2. Hurry the Array: Learners use visual arrays to model division problems, promoting logical reasoning and spatial awareness
3. The Power of Agonsa: Learners analyze problem situations by identifying what is asked, the given facts, and the proper operation.
4. Arrange Me: Learners organize given details to form a meaningful word problem, enhancing comprehension and sequencing skills.
5. Craft Me: Learners create their own word problems, showing mastery of mathematical concepts and creativity in problem formulation.

Expected Outcomes:
1. Improved comprehension and mastery of division concepts.
2. Strengthened problem solving and critical thinking skills through contextualized practice.
3. Increased learner engagement and motivation in solving real-life math problems.

3. Evaluation of the developed Learning Activity Sheets in Mathematics 3

Table 2
Evaluation of the developed Learning Activity Sheets in Mathematics 3 in terms of content, format, presentation, organization, accuracy, and up-to-date information

Criteria	Weighted Mean	Qualitative Description
Content	4.75	Very Satisfactory
Format	4.50	Very Satisfactory
Presentation & Organization	4.25	Very Satisfactory
Accuracy	4.25	Very Satisfactory
Up-to-date Information	4.75	Very Satisfactory
Overall Mean	4.50	Very Satisfactory

The developed contextualized learning activity sheets in Mathematics 3 were evaluated by Grade 3 teacher and instructional materials experts of Dupax Del Norte I District in terms of content, format, presentation, organization, accuracy, and up-to-date information.

Content. The material obtained a mean rating of 4.75 (Very Satisfactory), indicating that it is clear, relevant, and aligned with the intended learning competencies. This supports Pulot et al. (2026), who emphasized that high-quality instructional materials must ensure conceptual clarity and factual correctness for effective teaching and

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learning. However, evaluators suggested adding more real-life examples to better support slow learners and strengthen conceptual understanding.

Format. The material was rated 4.50 (Very Satisfactory), described as neat and visually appealing, although some pages were noted to be text-heavy. Evaluators recommended using the SDO template to improve spacing and balance between text and visuals. This aligns with Pulot et al. (2026), highlighting that standardized formatting improves readability and structural consistency in instructional materials.

Presentation & Organization. The activities showed a logical progression from simple to complex, supporting comprehension and skill development (Andriichuk et al., 2022; Pepin, 2021). It obtained a mean rating of 4.25 (Very Satisfactory), indicating sound structure. However, improvements in transitions, instructions, and inclusion of differentiated activities were recommended to better address learner diversity.

Accuracy. The content was considered correct and reliable, and only minor errors were identified. This indicates that the material is generally accurate and appropriate and in supporting meaningful learning experiences. This is consistent with the findings of Rustamaji et al. (2024), which emphasize that precise and validated content is critical in ensuring effective knowledge acquisition and understanding. In terms of evaluation, the material obtained a mean rating of 4.25, interpreted as *Very Satisfactory*, suggesting that it meets acceptable standards of accuracy and quality.

Up-to-datedness of information. Examples were generally relevant to learners' daily lives, though some require updating and stronger localization for better contextual relevance. This supports the need for continuous refinement of instructional materials, as currency is context-dependent (Cubides et al., 2023). It obtained a mean rating of 4.75 (Very Satisfactory), indicating acceptability with room for contextual enhancement.

The total mean of 4.50 (Very Satisfactory) reflects a high level of quality across all indicators. Consistent with Arça et al. (2024), the results show that effective instructional materials are characterized by accuracy, coherence, design quality, and continuous improvement. Overall, the learning activity sheets are acceptable and effective, with minor revisions recommended to further enhance clarity, presentation, and learner engagement.

4. Analysis of significant difference between the evaluations of the two groups of respondents regarding the developed Learning Activity Sheets

Table 3
Analysis of significant difference between the evaluations of the two groups of respondents regarding the developed Learning Activity Sheets

Variables Compared	Mean	Difference	Computed t-value	p-value	Remark
Grade 3 Mathematics Teachers	4.20	0.60	1.02	0.312	Exploratory
Instructional Materials Expert	4.80				

df = 2; Crit-t = 4.303 (α = 0.05)

Based on the results presented in Table 3, a comparison of group means shows that both grade 3 mathematics teachers (M = 4.20) and instructional material experts (M = 4.80) provided favorable evaluations of the developed Learning Activity Sheets (LAS). While an independent samples t-test yielded a p-value of 0.312, this result is treated as exploratory due to the very small sample size (n = 2 per group), which limits the reliability and generalizability of inferential statistical analysis. Consequently, greater emphasis is placed on descriptive comparisons and the consistency of responses across evaluators.

The relatively close mean rating suggest that both groups shared generally similar perceptions of the LAS in terms of content, format, presentation and organization, accuracy and up-to-datedness of information. Rather than confirming a statistically significant difference, the findings indicate a pattern of agreement in how the materials were evaluated, supporting their overall acceptability based on expert and practitioner judgment.

In terms of content, the evaluators agreed that the learning activity sheets were clear, relevant, and aligned with learning competencies. However, they recommended adding real-life examples to cater to slow learners. The format was described as neat and attractive, although some pages were observed to contain excessive text. It is suggested to use the SDO template, apply proper spacing, and ensure a balanced combination of text and illustrations. Regarding presentation and organization, the lessons were arranged logically from simple to complex. Nonetheless, improvements were recommended in transitions and directions, and the inclusion of more differentiated

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activities was advised to address the varying learner needs. The accuracy of the information was found to be correct and reliable, with only a few minor errors. For up-to-date information, the evaluators acknowledged that the material is relevant to learners' daily experiences but suggested updating some examples and integrating real or local contexts to enhance learner engagement.

Overall, it was concluded that the developed Learning Activity Sheets in Mathematics 3 were acceptable, useful, and effective. However, these conclusions are primarily grounded in descriptive evidence and expert evaluation rather than inferential statistical confirmation. Minor revisions are still needed to further improve their clarity, presentation, and connection to real-life situations.

Conclusions

From the salient findings of the study, the following conclusions were drawn.

First, the results of Rapid Mathematics Assessment revealed that most Grade 3 learners at Inaban Elementary School demonstrated low proficiency in foundational mathematics competencies. This indicates that many learners require targeted instructional support to strengthen their numeracy skills and improve their mathematical understanding at the beginning of the school year.

Second, the development of contextualized learning activity sheets using Kemp's Instructional Design Model provided an instructional intervention that addresses the least-mastered competencies identified in the assessment results. These materials integrate meaningful learning activities and real-life contexts that support learner engagement and comprehension.

Third, the developed learning activity sheets were evaluated by Grade 3 teachers and instructional material experts and were found to be highly acceptable in terms of content, format, presentation and organization, accuracy, and up-to-datedness of information. The evaluators also recommended minor improvements to enhance clarity, visual presentation, and contextual relevance.

Finally, it suggests a consistent pattern in the evaluation of teachers and instructional material experts regarding the quality of the developed instructional materials; however, this interpretation is based mainly on descriptive analysis, as the statistical test results are considered exploratory due to the small sample size.

Overall, the study demonstrates that contextualized instructional materials informed by diagnostic assessment results may support improved numeracy instruction, enhance learner engagement, and contribute to data-driven teaching practices in elementary mathematics education.

Recommendations

Based on the findings and conclusions, the following recommendations are offered:

1. School may implement structured remediation programs and intervention activities that focus on strengthening learners' foundational numeracy skills. Teachers may utilize differentiated instruction and small-group tutorials to address diverse learning needs.
2. Teachers and curriculum developers may continue developing contextualized instructional materials aligned with curriculum standards and learners' local contexts. Professional development programs may be provided to train teachers in instructional design models for developing effective learning resources.
3. The developed learning activity sheets may be further refined by incorporating additional real-life examples, improved visual presentation, and differentiated learning tasks to enhance learner engagement and accessibility.
4. School administrators and education leaders may support the wider implementation of contextualized learning materials as part of school-based intervention programs to improve mathematics achievement.
5. Teacher education institutions may integrate training on contextualized instructional material development and assessment-informed instruction in teacher preparation programs.
6. Future researchers may examine the effectiveness of the contextualized learning activity sheets through experimental or quasi-experimental research designs to determine their impact on learners' mathematics achievement.
7. Future studies are recommended to include a larger number of evaluators to allow for more appropriate statistical analyses and to improve the reliability and validity of the findings.

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