

Interactive Learning Materials in Kindergarten

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Date Submitted:

April 21, 2026

Date Accepted:

May 27, 2026

Date Published:

June 02, 2026

DOI:

10.5281/zenodo.20512636

ABSTRACT

This study developed and evaluated Interactive Learning Materials (ILM) for kindergarten literacy instruction at Wawa Elementary School. The materials focused on alphabet knowledge, phonological awareness, and picture-word recognition and were designed as locally produced, learner-centered resources for young learners. A descriptive-developmental approach with quantitative and qualitative components was employed. Purposive sampling was used. The manuscript identified 10 validator-experts, composed of six kindergarten teachers, two elementary Master Teachers, and two kindergarten instructional-material developers, and separately reported 10 kindergarten teachers from Tanay District as evaluators using an adapted Learning Resources Management and Development System (LRMDS) checklist. Weighted means and qualitative

descriptions were used to analyze the evaluations and suggestions. Results showed consistently favorable ratings: content obtained a mean of 3.96, format 3.98, presentation and organization 3.98, and accuracy and up-to-datedness 4.00, indicating that the materials were highly acceptable and that the evaluated errors were not present. Experts recommended adding QR codes or links to supplementary digital resources and providing a teacher's guide with differentiation and assessment suggestions. The study concludes that the developed ILM are appropriate supplementary resources for kindergarten instruction. Continuous improvement, teacher capability-building, classroom utilization, and regular monitoring are recommended.

Keywords: *interactive learning materials, kindergarten education, early literacy, instructional-material development, LRMDS, learner engagement*

INTRODUCTION

Early childhood education establishes foundations for language, literacy, social development, and lifelong learning. In the Philippines, Republic Act No. 10157 institutionalized kindergarten as the compulsory entry stage to basic education. At this level, learning materials need to be developmentally appropriate, concrete, engaging, and responsive to how young children learn through play, exploration, and hands-on experiences.

Early literacy instruction is particularly important because kindergarten learners begin developing alphabet knowledge, phonological awareness, vocabulary, print awareness, and picture-word recognition. These foundational abilities support later reading and writing development. However, teaching letters, sounds, and vocabulary can be difficult when activities are limited to abstract explanation or repetitive exercises. Learners benefit from materials that connect visual cues, movement, language, and meaningful participation.

The development of locally produced learning resources is supported by the Enhanced Basic Education Act of 2013, which encourages contextualized teaching and learning materials. Instructional materials can promote active learning when their content, design, organization, accuracy, and usability are carefully considered (Dacalos, 2024). In response, this study developed Interactive Learning Materials in Kindergarten for literacy instruction at Wawa Elementary School. It evaluated their acceptability in terms of content, format, presentation and organization, and accuracy and up-to-datedness, and documented recommendations for improvement.

Literature Review

Interactive Learning Materials for Early Literacy

Kindergarten learners benefit from resources that translate learning objectives into concrete and engaging experiences. Interactive materials can support letter recognition, sound awareness, vocabulary development, and participation by integrating visuals, hands-on tasks, and play-based activities. Because young learners require developmentally appropriate experiences, instructional resources should be easy to understand, attractive, and sufficiently flexible for teacher-guided and independent use.

Quality Criteria for Learning Resources

The quality of instructional materials depends on more than content coverage. Resources should be aligned with learner development, visually readable, logically organized, accurate, and free from distracting or inappropriate elements. Saxena et al. (2020) emphasized the role of content quality in learners' satisfaction with educational resources. Yasin et al. (2022) similarly showed that age-appropriate multimedia design and usability are central considerations for kindergarten learning resources.

Teacher-Developed and Contextualized Materials

Teacher-developed materials allow educators to address local learning needs and design activities aligned with classroom realities. Eviota and Boyles (2022) demonstrated the value of developing targeted instructional materials based on identified competencies. Rahmatsyah and Dwiningsih (2021) also found that interactive modules can be feasible and practical when their content, presentation, language, and graphic elements are carefully evaluated. These findings support systematic validation before classroom use.

METHODS

Research Design

The study used a descriptive-developmental approach with quantitative and qualitative components. The developmental component involved designing Interactive Learning Materials focused on kindergarten literacy. The descriptive component evaluated the acceptability of the completed materials and summarized validators' comments and recommendations.

Research Locale

The study was conducted at Wawa Elementary School and involved evaluators from Tanay District, Schools Division Office of Rizal. The developed materials were intended to support kindergarten literacy instruction, particularly alphabet knowledge, phonological awareness, and picture-word recognition.

Participants and Sampling Technique

Purposive sampling was used. The manuscript identified 10 validator-experts composed of six kindergarten teachers, two elementary Master Teachers, and two kindergarten instructional-material developers. It also separately reported that 10 kindergarten teachers from Tanay District evaluated the materials using the LRMDS checklist. The article retains this distinction because the source manuscript did not explicitly clarify whether the two groups overlapped.

Research Instrument

An adapted Evaluation Rating Sheet for Print Resources from the DepEd Learning Resources Management and Development System (LRMDS) was used. The instrument evaluated four domains: content, format, presentation and organization, and accuracy and up-to-datedness of information. A four-point scale was applied. For the first three domains, ratings from 3.26 to 4.00 were interpreted as Very Satisfactory. For accuracy and up-to-datedness, a score of 4.00 indicated that the listed errors were not present.

Data Gathering Procedure

The researcher developed the materials based on key kindergarten literacy domains. The adapted checklist was distributed to the evaluators and subsequently retrieved. Quantitative ratings were summarized and tabulated, while qualitative comments were reviewed to identify recommendations for revision and future utilization.

Data Analysis

Weighted means and standard deviations were used to summarize the evaluation ratings. Qualitative description was used to explain the development process and synthesize the experts' comments and suggestions.

Ethical Consideration

The study observed voluntary participation and appropriate use of evaluation data. The evaluators' comments were reported in summarized form to protect individual identities. The developed materials were evaluated for instructional use and no learner-performance intervention outcome was claimed beyond the scope of the validation evidence.

RESULTS AND DISCUSSION

Development of the Interactive Learning Materials

The Interactive Learning Materials were developed to support early literacy instruction in kindergarten. The materials focused on alphabet recognition, phonological and phonemic awareness, and picture-word recognition. Activities were designed to be interactive, visually engaging, and suitable for young learners. Hands-on tasks and play-based strategies were incorporated to help connect the lesson, the teacher, and the learner in an accessible manner.

Overall Evaluation of the Developed Materials

The materials received consistently high ratings across all evaluated domains. Content obtained a mean of 3.96, format 3.98, and presentation and organization 3.98, all interpreted as Very Satisfactory. Accuracy and up-to-datedness obtained a perfect mean of 4.00, indicating that the listed errors were not present. These results show that the materials were considered appropriate, readable, organized, and suitable for kindergarten instruction.

Table 1. *Composite Evaluation of the Developed Interactive Learning Materials*

Evaluation Domain	Mean	SD	Interpretation
Content	3.96	0.18	Very Satisfactory
Format	3.98	0.10	Very Satisfactory
Presentation and organization	3.98	0.13	Very Satisfactory
Accuracy and up-to-datedness	4.00	0.00	Errors not present

Content Quality

The content rating indicates that the materials were aligned with learners' developmental level and instructional objectives. The strongest indicators included suitability for learners, alignment with subject objectives, support for higher cognitive skills, values formation, and learner interest. The lowest item, although still rated Very Satisfactory, concerned the provision of safety and health cautionary notes ($M = 3.80$). This suggests an opportunity to make safeguards more explicit in activities where needed.

Table 2. *Evaluation of Selected Content Indicators*

Content Indicator	Mean	SD	Interpretation
Suitable to the learner's level of development	4.00	0.00	Very Satisfactory
Contributes to the achievement of subject and grade-level objectives	4.00	0.00	Very Satisfactory
Supports higher cognitive skills and learning by doing	4.00	0.00	Very Satisfactory
Free from biases and prejudices	3.90	0.32	Very Satisfactory
Provides appropriate safety and health cautionary notes	3.80	0.41	Very Satisfactory
Overall	3.96	0.18	Very Satisfactory

Format, Presentation, and Organization

The format of the materials was evaluated as Very Satisfactory ($M = 3.98$, $SD = 0.10$). Evaluators approved the letter size, spacing, readability, printing quality, illustrations, visual appeal, cultural relevance, layout, and ease of handling. Presentation and organization were likewise rated Very Satisfactory ($M = 3.98$, $SD = 0.13$), reflecting clear sequencing, appropriate vocabulary, and learner-friendly sentence structure. These findings align with the importance of usability and age-appropriate presentation in kindergarten materials (Yasin et al., 2022).

Table 3. *Summary of Format and Presentation Ratings*

Domain / Indicator	Mean	SD	Interpretation
Format: print readability and letter size	4.00	0.00	Very Satisfactory
Format: illustrations and visual appeal	4.00	0.00	Very Satisfactory
Format: labeling and durable binding	3.90	0.32	Very Satisfactory
Format overall	3.98	0.10	Very Satisfactory
Presentation: engaging and understandable	4.00	0.00	Very Satisfactory
Presentation: logical flow and appropriate vocabulary	4.00	0.00	Very Satisfactory
Presentation: varied sentence and paragraph structures	3.90	0.30	Very Satisfactory
Presentation and organization overall	3.98	0.13	Very Satisfactory

Accuracy and Up-to-Datedness

The evaluators unanimously indicated that conceptual, factual, grammatical, computational, and obsolete-information errors were not present. The perfect mean of 4.00 supports the acceptability of the materials for instructional utilization. The result should be understood as a validation finding rather than as evidence of learning effectiveness, since the study did not measure changes in learner outcomes.

Table 4. *Accuracy and Up-to-Datedness Evaluation*

Evaluated Error	Mean	SD	Interpretation
Conceptual errors	4.00	0.00	Not present
Factual errors	4.00	0.00	Not present
Grammatical errors	4.00	0.00	Not present
Computational errors	4.00	0.00	Not present
Obsolete information	4.00	0.00	Not present
Overall	4.00	0.00	Not present

Comments and Suggestions for Improvement

The evaluators considered the materials aligned with the required criteria and appropriate for kindergarten learners. They recognized the potential of the visual elements and activities to promote creativity, engagement, and foundational literacy skills. Two practical suggestions emerged: the inclusion of QR codes or links to supplementary digital resources, and the preparation of a teacher's guide containing suggested strategies, differentiation techniques, and assessment tips.

Table 5. *Consolidated Recommendations from Evaluators*

Recommendation	Purpose	Proposed Response
Add QR codes or links to supplementary digital resources	Extend learning beyond printed pages through videos, songs, and guided activities	Integrate carefully selected digital resources during material revision
Prepare a teacher's guide	Support effective classroom use, differentiation, and assessment	Develop a concise implementation guide with suggested strategies and assessment tips
Continue regular review and enhancement	Maintain quality and responsiveness to classroom needs	Conduct periodic classroom observation and evaluator review

Proposed Action Plan

The proposed action plan focuses on continuous enhancement of the materials, teacher capability-building, learner engagement, and monitoring. These activities are directly grounded in the validation findings and recommendations.

Table 6. *Proposed Action Plan for the Interactive Learning Materials*

Objective	Key Activities	Persons Involved	Time Frame	Expected Output
Improve the quality of the developed materials	Revise the ILM based on evaluator recommendations; add appropriate digital links and teacher guidance	Researcher, kindergarten teachers, ICT coordinator	May-June 2026	Improved and finalized learning materials
Enhance teachers' capability in using interactive materials	Conduct training on developing and utilizing interactive learning materials	School head and teachers	June-August 2026	Teachers equipped to develop and use interactive materials
Increase learner engagement and participation	Integrate additional interactive activities during instruction	Kindergarten teachers	Throughout the school year	Improved learner participation
Monitor classroom utilization and effectiveness	Benchmark the materials; conduct classroom observations and learner assessments	School head, Master Teacher, kindergarten teachers	Every semester	Monitoring reports and evaluation results

CONCLUSION

The developed Interactive Learning Materials in Kindergarten were evaluated favorably across content, format, presentation and organization, and accuracy and up-to-datedness. The consistently high ratings indicate that the materials are suitable supplementary resources for kindergarten literacy instruction. Their strengths include developmentally appropriate content, clear and attractive format, organized presentation, and the absence of identified accuracy issues. The findings support classroom utilization and benchmarking, while recognizing that further classroom-based evaluation is necessary to determine effects on learner outcomes.

Recommendations

The developed materials may be utilized by kindergarten teachers as supplementary resources for literacy instruction. School administrators are encouraged to support their implementation and improvement. Future revisions should incorporate carefully selected multimedia resources, additional games, storytelling activities, collaborative tasks, and a teacher's guide with differentiation and assessment suggestions. Classroom observations and learner assessments should be conducted periodically to monitor usability and instructional impact. Future research may test the effects of the materials on specific learner outcomes using an intervention design.

References

- Dacalos, J. L. (2024). Strategic intervention materials in General Physics 1 [Unpublished instructional material].
- Eviota, M. P., & Boyles, L. Z. (2022). Least learned competencies in Grade 9 biology: Basis for development of strategic intervention material (SIM). *Asian Journal of Research in Education and Social Sciences*, 4(1), 53-70.
- Rahmatsyah, S. W., & Dwiningsih, K. (2021). Development of interactive e-module on the periodic system materials as an online learning media. *Jurnal Penelitian Pendidikan IPA*, 7(2), 255.
- Republic Act No. 10157. (2012). Kindergarten Education Act.
- Republic Act No. 10533. (2013). Enhanced Basic Education Act of 2013.
- Saxena, C., Baber, H., & Kumar, P. (2020). Examining the moderating effect of perceived benefits of maintaining social distance on e-learning quality during COVID-19 pandemic. *Journal of Educational Technology Systems*, 49(4), 532-554. <https://doi.org/10.1177/0047239520977798>
- Yasin, S. N. S., Mohamed, N., Muhammad, A., Majid, H. A. M. A., & Mohamed, H. (2022). Developing healthy eating multimedia courseware for kindergarten students: Heuristic and usability evaluation. In *2022 IEEE 12th Symposium on Computer Applications & Industrial Electronics (ISCAIE)* (pp. 264-270). IEEE.