

A Blended Phonics and Play-Based Literacy Intervention: Effects on Reading Fluency and Comprehension Among Key Stage 1 Learners

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Abstract

This study evaluated the effectiveness of a blended phonics and play-based literacy intervention on reading fluency and comprehension among Key Stage 1 Grade three learners at Pamilacan Elementary School during the school year 2025–2026. Specifically, it examined differences in reading performance between learners exposed to the blended intervention and those taught through traditional reading instruction, while also proposing an action plan for classroom or remedial implementation. A pre-test–post-test quasi-experimental design was employed, involving twenty-five Grade three learners divided into two groups: twelve in the control group and thirteen in the experimental group. The Modified English Literacy Assessment (MELA) was administered to both groups, and data were analyzed using mean scores, t-tests, and z-tests. Findings revealed that the control group achieved moderately satisfactory performance in the pre-test, while the experimental group showed needs improvement. In the post-test, both groups attained satisfactory results, though the experimental group scored slightly higher (88.38) than the control group (87.17), with a mean difference of 1.21 points. Statistical analysis confirmed a significant difference favoring the blended phonics and play-based intervention. Positive feedback from learners, teachers, and parents further supported its effectiveness in enhancing reading fluency and comprehension. The study concludes that the blended approach is more effective than traditional instruction and recommends its integration into literacy teaching and remediation. A proposed action plan is offered to guide teachers in applying this strategy, while future research is encouraged to validate and strengthen these findings.

Keywords: Blended Phonics, Comprehensive Rapid Literacy Assessment, Grade Three Learners, Modified English Literacy Assessment, Pamilacan Elementary School, Play-Based Literacy, Reading Comprehension, Reading Fluency

1. Introduction

Reading fluency and comprehension are foundational competencies in early education because they support learners' transition from basic decoding to meaningful understanding of texts. This study focuses on the effectiveness of a blended phonics and play-based literacy intervention in improving the reading fluency and comprehension of Key Stage 1 Grade Three learners at Pamilacan Elementary School, Baclayon District, Division of Bohol, during School Year 2025–2026. The intervention combines structured phonics instruction with stories, role play, games, and interactive literacy activities to make reading both skill-based and engaging.

A combined reading approach that integrates systematic phonics instruction with play-based literacy activities offers a holistic pathway for developing reading fluency and comprehension among Key Stage 1 Grade Three learners. Phonics strengthens accuracy, decoding, and word recognition, while stories, role play, and word games provide meaningful contexts where learners can apply reading skills with creativity, confidence, and enjoyment. This approach is particularly relevant because learners need not only to read words correctly but also to understand, interpret, and enjoy what they read. Globally, reading assessment results show persistent gaps between high-performing countries and developing countries such as the Philippines. Although many Filipino learners can demonstrate basic reading ability, fewer achieve adequate comprehension, a concern also reflected in national discussions on literacy challenges. At the local level, the 2025 Comprehensive Rapid Literacy Assessment results at Pamilacan Elementary School showed that many Grade Three learners remained at low levels of reading performance. Some learners had basic decoding skills, but only a few demonstrated stronger fluency and comprehension. These conditions justify the need for an evidence-based intervention that goes beyond phonics alone and integrates engaging, learner-centered reading activities.

The literature emphasizes that early reading ability serves as a gateway to lifelong learning and must therefore be developed through purposeful, engaging, and developmentally appropriate instruction. Phonics instruction has been recognized as useful in helping young learners decode words, but it may be limited when used alone because reading development also requires comprehension, motivation, and higher-order thinking. For this reason, recent studies highlight blended models

that combine phonics with play, technology, storytelling, and interactive learning. Bandala (2024) found that phonics instruction improved decoding skills and reading fluency among Grade 1 and Grade 2 learners, with learners' performance improving from "Good" to "Excellent" after phonics-focused instruction. However, the study also noted that comprehension is not adequately developed by simply teaching learners to read words through phonics. Bandala (2021) recommends the inclusion of comprehension strategies in phonics instruction and calls for stronger teacher training, resources, and research toward a more balanced literacy approach. Delos Reyes (2024) examined blended early reading techniques involving ICT tools, Marungko re-reading, and play-based learning among Key Stage 1 learners. The study used the Comprehensive Rapid Literacy Assessment and reported improvement not only in decoding and fluency but also in learner engagement, comprehension, and motivation. Similarly, Colinares and Derasin (2023) found that play-based literacy interventions improved reading readiness, recognition of high-frequency words, and learners' enjoyment of reading. These findings suggest that play-based and blended literacy activities can strengthen both the cognitive and affective dimensions of early reading.

The local context of the study is Pamilacan Elementary School in Baclayon District, Division of Bohol, where Grade Three learners' recent CRLA results indicated low and emerging levels of reading performance. Grade Three is a critical transition point before Key Stage 2, where learners are expected to possess stronger reading fluency and comprehension. The study therefore addresses a direct school-based literacy concern by testing whether blended phonics and play-based reading intervention can improve learners' reading outcomes. At the national level, Republic Act No. 10533, or the Enhanced Basic Education Act of 2013, supports learner-centered, inclusive, contextualized, and developmentally appropriate instruction. The law institutionalized the K to 12 Basic Education Program and "reflected and defended the philosophy and vision of the Philippine Education for All (EFA) 2015 Plan of Action" (Bureau of Elementary Education 2016). It also promotes mother tongue-based instruction in the early grades, a culture-sensitive curriculum, teacher development, and alignment with international learning standards. DepEd Order No. 12, s. 2025, "Multi-Year Implementing Guidelines on the School Calendar and Activities," includes the Comprehensive Rapid Literacy Assessment as a Beginning-of-School-Year diagnostic tool. The CRLA is used with other assessments to determine learners' literacy strengths and weaknesses and to guide targeted intervention. This supports the study's focus on early identification of reading difficulties and the development of appropriate instructional responses. At the global level, the UNESCO Education 2030 Framework emphasizes inclusive and high-quality early childhood education as a foundation for lifelong learning. It recognizes early childhood as a critical period for cognitive, linguistic, social, and emotional development and links literacy development with equitable access to quality education. The framework also stresses the urgency of addressing global literacy gaps, especially because many children remain below minimum reading proficiency levels.

The study is anchored on Constructivist Theory, Dual Coding Theory, and Multisensory Structured Language Education. Constructivist Theory, associated with Piaget and Vygotsky, explains that learners construct knowledge through experience, reflection, and social interaction. Piaget's cognitive constructivism emphasizes active exploration, while Vygotsky's social constructivism highlights the role of culture, collaboration, and interaction in learning. The Zone of Proximal Development further explains that learners can achieve more with guidance from a teacher or more capable peer. This supports the use of play-based and collaborative literacy activities in the classroom. Dual Coding Theory, developed by Allan Paivio, explains that learning improves when verbal and non-verbal information are presented together. In reading instruction, combining words with images, actions, and visual representations can strengthen understanding, memory, and recall. This theory supports the use of stories, illustrations, games, and interactive materials to enhance reading comprehension (Culatta, 2025). Multisensory Structured Language Education supports explicit, systematic, cumulative, and diagnostic literacy instruction using visual, auditory, and kinesthetic-tactile modalities. This approach strengthens phonics learning by allowing learners to see, hear, say, and physically engage with letters, sounds, and words. It supports learners who need structured and multisensory pathways for developing phonemic awareness, decoding, fluency, and comprehension (Institute for Multisensory Structured Language Education, 2025). The conceptual framework also recognizes Constructivist Theory as learning through active engagement and social interaction (Das & Nandi, 2023).

Although phonics instruction has been shown to improve decoding and fluency, prior studies indicate that phonics alone may not be enough to develop comprehension and sustained reading engagement. Bandala (2024) confirms the value of phonics but also points to the need for comprehension strategies. Delos Reyes (2024) shows that blended techniques involving ICT, Marungko re-reading, and interactive play can improve fluency, comprehension, and motivation among Key Stage 1 learners. Colinares and Derasin (2023) likewise demonstrate that play-based contextual literacy programs enhance reading readiness and enjoyment. Despite these findings, there remains a need to examine the effectiveness of a blended phonics and play-based reading intervention among Grade Three learners in a remote island school context. The study addresses this gap by evaluating whether a unified approach combining structured phonics and play-based activities can produce greater gains in reading fluency and comprehension than traditional reading instruction. It also responds to the local literacy needs of Pamilacan Elementary School, where CRLA results show that many learners require targeted support.

This study is primarily aligned with SDG 4 – Quality Education, which aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. The study supports SDG 4 because it focuses on improving foundational literacy, particularly reading fluency and comprehension, among young learners. It is also connected to Target 4.1, which emphasizes quality primary education, and Target 4.6, which calls for youth and adults to achieve literacy and numeracy by 2030. The study also has indirect relevance to SDG 10 – Reduced Inequalities because it focuses on learners in Pamilacan Elementary School, a remote island context where literacy development studies are uncommon. By designing an intervention suited to learners' needs, the study contributes to more inclusive and equitable learning opportunities. It also supports SDG 17 – Partnerships for the Goals through its connection with DepEd policies, school-based implementation, teacher support, and institutional efforts to improve literacy outcomes.

The study contributes to educational sustainability by promoting an evidence-based, learner-centered reading intervention that can help strengthen foundational literacy in the early grades. Improved reading fluency and comprehension can support long-term academic performance, learner confidence, and lifelong learning. By integrating phonics with play-based activities, the study also encourages inclusive, engaging, and developmentally appropriate instruction. The study also supports community and institutional sustainability because it addresses a real school-based literacy need and proposes an action plan that can guide teachers, administrators, curriculum developers, parents, and future researchers. Teachers may use the findings to design more engaging reading lessons; administrators and policymakers may use the results for resource allocation and teacher training; parents may support literacy development through playful reading activities at home; and future researchers may build on the study to examine blended literacy interventions in other contexts. Overall, the study positions reading not only as a technical academic skill but also as a foundation for educational equity, learner development, and sustainable school improvement.

2. Material and methods

2.1 Research Design

The study employed a quasi-experimental research design using a pre-test and post-test procedure. This design was used to compare the reading performance of learners exposed to the blended phonics and play-based reading intervention with those who received traditional reading instruction. The process involved administering a pre-test, implementing the intervention, and conducting a post-test to determine changes in reading fluency and comprehension.

2.2 Locale of the Study

The study was conducted at Pamilacan Elementary School, located at the center of Pamilacan Island in the Municipality of Baclayon, Province of Bohol, Philippines. The school offers Kindergarten to Grade Six and is situated along the barangay road. Travel to the island takes approximately 45 minutes to one hour by boat from Baclayon Baluarte, indicating the remote rural island setting of the study. This locale was selected because studies on literacy development among pupils in remote rural island schools are uncommon, and the school's recent CRLA BOSY results for School Year 2025–2026 showed low and emerging performance levels in English literacy.

2.3 Respondents of the Study

The respondents were twenty-five Grade Three learners of Pamilacan Elementary School, Baclayon District, Division of Bohol, during School Year 2025–2026. They were seven to eight years old and were selected because Grade Three is a transitional level before Key Stage 2, where learners are expected to demonstrate stronger reading fluency and comprehension.

2.4 Sample and Sampling Procedure

The total sample consisted of twenty-five learners. The participants were divided into two groups through score pairing based on their pre-test results. After pairing, they were assigned to either the experimental group or the control group. The experimental group consisted of thirteen learners who received the blended phonics and play-based reading intervention, while the control group consisted of twelve learners who received traditional reading instruction. The intervention was conducted in a stable classroom environment, and the researcher personally implemented the procedure for both groups.

2.5 Research Instrument

The study used the Modified English Literacy Assessment (MELA) as the pre-test and post-test instrument. The MELA is similar to the Comprehensive Rapid Literacy Assessment used by Key Stage 1 teachers to assess reading fluency and comprehension. It consisted of three tasks: a CVC word list, one- and two-syllable words, and the reading of a short story followed by five comprehension questions. The instrument was administered individually by the researcher to both the control and experimental groups to ensure proper implementation of the assessment process.

2.6 Data Gathering Procedure

The data gathering procedure began with the researcher securing the necessary clearances and endorsement letters from Bohol Island State University, the Division Office of Bohol, and the School Principal of Pamilacan Elementary School. After approval was obtained, parental consent and learner assent were secured from all participants. The researcher then administered the pre-test using the MELA, recorded the scores, and used the results for score pairing and group assignment. The intervention was conducted for eight weeks, with one-hour sessions held after regular classes. The experimental group received the blended phonics and play-based reading intervention, while the control group received traditional reading instruction. After the intervention period, the researcher administered the post-test individually to all learners, recorded their scores, and interpreted the results using the prescribed performance guide.

2.7 Data Analysis Techniques

The gathered data were compiled, organized, tabulated, and analyzed using appropriate statistical procedures. The mean was used to determine the pre-test and post-test performance of the control and experimental groups in reading fluency and comprehension. The learners' performance was interpreted using the prescribed scale ranging from "Needs Improvement" to "Outstanding." To determine the significant difference between learners exposed to the blended phonics and play-based intervention and those who received traditional instruction, the t-test for matched groups was used, with results evaluated at the 5% level of significance.

2.8 Ethical Considerations

The study followed institutional and DepEd protocols before data collection and intervention implementation. The researcher secured official approvals from the concerned academic and school authorities and obtained informed parental consent and learner assent from the participants before they joined the study.

3. Results and Discussion

3.1 Reading Performance of the Control and Experimental Groups

3.1.1 Pre-test Reading Performance

The pre-test results showed that the control group obtained an average mean score of 69.17, interpreted as "Moderately Satisfactory." Most learners in the control group were at the moderately satisfactory level, while some reached satisfactory and very satisfactory levels, and a small number remained under needs improvement. In contrast, the experimental group obtained an average mean score of 39.15, interpreted as "Needs Improvement." More than half of the learners in the experimental group were moderately satisfactory, while the remaining learners were under needs improvement, and none reached the satisfactory, very satisfactory, or outstanding levels. These findings indicate that the two groups were not equivalent at baseline, with the control group showing stronger initial reading performance than the experimental group. The lower starting point of the experimental group supports the need for a more engaging and targeted reading intervention. This is consistent with Bandala (2024), De los Reyes (2024), and Colinares & Derasin (2023), who collectively emphasize that learners with weaker baseline reading skills may benefit from innovative and blended literacy interventions.

3.1.2 Post-test Reading Performance

The post-test results showed improvement in both groups after the implementation of their respective instructional approaches. The control group obtained an average mean score of 87.17, interpreted as "Satisfactory," reflecting an increase from its pre-test mean of 69.17. A considerable number of learners reached the outstanding level, while others were classified as satisfactory or moderately satisfactory, and no learner remained under needs improvement. The experimental group also improved substantially, obtaining an average mean score of 88.38, also interpreted as "Satisfactory," from its pre-test mean of 39.15. Most learners reached satisfactory, very satisfactory, and outstanding levels, while no learner remained under needs improvement. These findings show that both traditional reading instruction and the blended phonics and play-based intervention improved learners' reading fluency and comprehension. However, the experimental group showed a more notable improvement because it moved from "Needs Improvement" at pre-test to "Satisfactory" at post-test. The results support Bandala (2024), who showed that phonics instruction develops foundational reading skills, and De los Reyes (2024) and Colinares & Derasin (2023), who found that blended and play-based approaches enhance decoding, fluency, comprehension, motivation, and learner engagement.

3.2 Significant Differences in Reading Performance

3.2.1 Difference Between the Pre-tests of the Control and Experimental Groups

The comparison of the pre-test scores of the control and experimental groups showed a statistically significant difference, with a computed t-value of 4.48 and a p-value of less than .001. Since the p-value was below the 0.05 level of significance, the null hypothesis was rejected. This means that the two groups had significantly different reading performance before the intervention. This result confirms that the control and experimental groups did not begin at the same level of reading proficiency. The significant baseline difference requires careful interpretation of the post-test outcomes because improvements may be influenced by the learners' initial reading levels. Bandala (2024), De los Reyes (2024), and Colinares

& Derasin (2023) support the importance of considering baseline differences in literacy intervention studies, particularly when examining the effects of reading programs among learners with varied starting abilities.

3.2.2 Difference Between the Pre-test and Post-test of the Control Group

The control group showed a statistically significant difference between its pre-test and post-test scores, with a t-value of -7.92 and a p-value of less than 0.001. The null hypothesis was rejected, indicating that the improvement in the control group's reading performance was statistically significant. The negative t-value shows that the post-test scores were higher than the pre-test scores. This finding indicates that traditional reading instruction contributed to meaningful improvement in learners' reading fluency and comprehension. Even without the blended phonics and play-based intervention, the control group improved, which may be attributed to regular instruction, continued exposure to reading activities, and natural learning progression over time. The result confirms that structured teaching can still support reading development.

3.2.3 Difference Between the Pre-test and Post-test of the Experimental Group

The experimental group also showed a statistically significant difference between its pre-test and post-test scores, with a t-value of -9.90 and a p-value of less than 0.001. The null hypothesis was rejected, confirming that the observed improvement was statistically significant. The negative t-value indicates that the post-test scores were higher than the pre-test scores, showing substantial improvement after the intervention. This finding demonstrates the strong positive effect of the blended phonics and play-based reading intervention on learners' reading performance. The large improvement from the pre-test to the post-test suggests that combining phonics with play-based literacy activities helped learners improve both fluency and comprehension. This is supported by Bandala (2024), De los Reyes (2024), and Colinares & Derasin (2023), whose studies recognize phonics, blended techniques, and play-based activities as effective strategies for improving early literacy outcomes.

3.2.4 Difference in Score Gains Between the Control and Experimental Groups

The comparison of score gains between the control and experimental groups revealed a statistically significant difference, with a t-value of -5.56 and a p-value of less than 0.001. The null hypothesis was rejected, showing that the difference in improvement between the two groups was significant. The experimental group achieved greater gains than the control group after the intervention. This result provides evidence that the blended phonics and play-based reading intervention was more effective than traditional instruction in improving reading fluency and comprehension. Although both groups improved, the experimental group demonstrated stronger progress despite starting from a lower baseline. This supports the findings of Bandala (2024), De los Reyes (2024), and Colinares & Derasin (2023), which emphasize that innovative, learner-centered, and play-based literacy approaches can produce stronger gains in early reading development.

4. Conclusion & Recommendations

The study concluded that both traditional reading instruction and the blended phonics and play-based reading intervention improved the reading fluency and comprehension of Grade Three learners at Pamilacan Elementary School. However, the experimental group, which initially performed at the "Needs Improvement" level, showed greater improvement and achieved a "Satisfactory" post-test result, indicating that the blended phonics and play-based approach was more effective in strengthening reading performance, particularly among learners with lower baseline proficiency.

Based on the findings, the study recommends the school-wide institutionalization of early literacy programs that integrate blended phonics and play-based practices into classroom instruction. It also recommends expanding the implementation of the intervention to the district or division level, providing continuous formative assessment and follow-up support for struggling learners, and ensuring sufficient teacher training, instructional materials, and institutional resources to sustain improved reading fluency and comprehension.

The study was limited to twenty-five Grade Three learners of Pamilacan Elementary School during School Year 2025–2026, with twelve learners in the control group and thirteen learners in the experimental group. The control and experimental groups were also not equivalent at baseline, as the pre-test comparison showed a significant difference in their initial reading performance; therefore, the findings should be interpreted within the specific context of the study's sample, setting, and group assignment procedure.

Compliance with ethical standards

The study was conducted in accordance with institutional ethical standards and relevant Department of Education protocols. Necessary approvals and endorsements were secured from the concerned academic and school authorities before data collection, and participation was voluntary through informed parental consent and learner assent. The confidentiality and privacy of all participants were observed, and the data gathered were used solely for academic and research purposes. The author declares that there was no conflict of interest in the conduct of the study and acknowledges the assistance and

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