

Enhancing Grade 1 Learners' Phonological Accuracy Skills Through Picture-Word Association

Rex T. Mahor¹

¹Department of Education, Uguis Integrated School, Schools Division of Ilocos Norte,

Abstract

Reading proficiency is a fundamental component of early literacy and significantly influences learners' academic achievement. Among beginning readers, phonological accuracy plays a vital role in developing decoding skills, word recognition, and reading fluency. This classroom-based action research determined the effectiveness of the Picture-Word Association (PWA) strategy in enhancing the phonological accuracy skills of Grade 1 learners. Specifically, the study examined learners' phonological accuracy before and after the intervention, determined changes in their Comprehensive Rapid Literacy Assessment (CRLA) reading classifications, and documented classroom observations during implementation. A one-group pretest-posttest design was employed involving twenty-two Grade 1 learners enrolled in a public elementary school during School Year 2025-2026. The intervention was implemented over eight weeks through structured literacy activities, including phoneme-picture matching, guided oral reading with visual cues, picture-word games, and learner journal activities. Findings revealed substantial improvement in learners' reading performance. Before the intervention, 59% of the learners were classified under the Full Refresher level and 41% were Grade Ready. After implementation, no learner remained under the Full Refresher classification, while 64% attained the Grade Ready level, 18% were classified as Light Refresher, and 18% as Moderate Refresher. Classroom observations further indicated increased learner confidence, engagement, participation, and accuracy in oral reading activities. The findings demonstrate that Picture-Word Association is an effective, learner-centered instructional strategy for improving phonological accuracy and strengthening beginning reading skills. The study supports the integration of meaningful visual supports into early literacy instruction to enhance sound-symbol correspondence and promote reading development among beginning readers.

Keywords: phonological accuracy, Picture-Word Association, beginning reading, CRLA, early literacy.

INTRODUCTION

Reading is widely recognized as one of the most essential competencies developed during the early years of formal education. It serves as the foundation for learning across subject areas and enables learners to acquire knowledge, communicate effectively, and participate meaningfully in academic and social contexts. Central to beginning reading is phonological accuracy, which refers to learners' ability to correctly recognize, discriminate, and pronounce speech sounds while establishing accurate relationships between sounds and

printed symbols. Deficiencies in these foundational skills often hinder decoding, reduce reading fluency, and negatively affect overall literacy development.

A growing body of research identifies phonological awareness and phonological processing as strong predictors of reading success. Murphy et al. (2020) reported that phonological processing significantly influences children's acquisition of word reading skills across languages. Similarly, Verhoeven et al. (2020) found that systematic phonological awareness instruction improves decoding ability, word recognition, and early reading achievement, particularly when integrated into regular classroom instruction. These findings underscore the importance of explicit instruction that strengthens learners' mastery of sound–symbol correspondence during the earliest stages of literacy development.

Recent studies further emphasize the value of incorporating visual supports into literacy instruction. Grounded in Paivio's Dual Coding Theory, picture-supported learning enhances comprehension by allowing learners to process verbal and visual information simultaneously, thereby strengthening memory and facilitating retrieval. Brooks et al. (2024) demonstrated that integrating meaningful visual representations with phonological instruction significantly improved children's decoding accuracy and oral reading performance. Likewise, studies published in *Frontiers in Psychology* reported that picture-based instructional approaches improved first-grade learners' letter recognition, reading accuracy, and phonological development by reducing cognitive load and reinforcing sound–symbol associations.

Within the Philippine context, strengthening foundational literacy remains a priority of the Department of Education through initiatives such as the Early Language, Literacy, and Numeracy (ELLN) Program, the National Reading Program, and the Bawat Bata Makababasa Program. The implementation of the Comprehensive Rapid Literacy Assessment (CRLA) enables teachers to identify learners' literacy needs and design timely interventions based on assessment results. Consistent with these initiatives, the Schools Division of Ilocos Norte promotes contextualized and evidence-based literacy interventions through its School Literacy Agenda.

At the beginning of School Year 2025-2026, the CRLA administered to Grade 1 learners revealed that thirteen out of twenty-two learners (59%) were classified under the Full Refresher level, indicating considerable difficulty in phonological accuracy and beginning reading competencies. These findings highlighted the need for an intervention that would strengthen learners' ability to recognize phonemes, establish accurate sound–symbol correspondence, and decode words effectively.

Although previous studies have demonstrated the effectiveness of picture-supported literacy instruction, limited classroom-based action research has examined the use of the Picture–Word Association strategy among Grade 1 learners in Philippine public elementary schools using the CRLA as an assessment tool. Addressing this gap, the present study investigated the effectiveness of the Picture-Word Association strategy in improving the phonological accuracy skills of Grade 1 learners. Specifically, it examined learners' phonological accuracy before and after the intervention, determined changes in their CRLA reading classifications, and documented classroom observations during the implementation of the strategy.

METHODS

Research design

This study employed a classroom-based action research using a one-group pretest–posttest design to determine the effectiveness of the Picture–Word Association (PWA) strategy in enhancing the phonological accuracy skills of Grade 1 learners. The design enabled the researcher to compare learners' phonological accuracy before and after the implementation of the intervention within an authentic classroom setting. As an action research approach, it provided a systematic process for identifying a classroom concern, implementing an instructional intervention, evaluating its effectiveness, and using the findings to improve teaching practice.

The study was guided by the Plan-Act-Observe-Reflect (PAOR) framework of Kemmis and McTaggart, which emphasizes continuous improvement through reflective instructional practice. During the planning phase, baseline CRLA results were analyzed to identify learners requiring intervention. The action phase involved the implementation of the Picture-Word Association strategy over an eight-week period. Learner performance and classroom engagement were continuously monitored during the observation phase, while the reflection phase focused on evaluating the intervention's effectiveness based on assessment results and classroom observations.

Participants and Sampling

The participants were twenty-two (22) Grade 1 learners enrolled in a public elementary school in the Schools Division of Ilocos Norte during School Year 2025-2026. Total enumeration sampling was employed because the entire Grade 1 class served as the target population for the classroom intervention.

Baseline CRLA results indicated that thirteen learners (59%) were classified under the Full Refresher level, while nine learners (41%) were classified as Grade Ready. These results demonstrated varying levels of phonological accuracy and justified the implementation of a structured literacy intervention.

Parents or guardians were informed about the objectives and procedures of the study before implementation. Participation was voluntary, and learner confidentiality was maintained throughout the research by reporting only aggregated data.

Instrument

The primary instrument used in the study was the Comprehensive Rapid Literacy Assessment (CRLA), the standardized literacy assessment adopted by the Department of Education to determine beginning reading proficiency.

The CRLA assesses learners' foundational reading competencies, including letter recognition, phonological awareness, phonological accuracy, decoding, oral reading fluency, and word recognition. It classifies learners into instructional reading levels that guide teachers in planning appropriate interventions.

The CRLA was administered as both the pretest and posttest to determine changes in learners' phonological accuracy after the implementation of the Picture-Word Association strategy. Classroom observation records were also maintained to document learner engagement, participation, confidence during oral reading, and responsiveness to the intervention.

Data collection

Prior to the conduct of the study, permission was secured from the school administration, and informed consent was obtained from parents or guardians of the participating learners.

The CRLA pretest was administered to establish learners' baseline phonological accuracy and instructional reading classifications. Based on the assessment results, the Picture–Word Association strategy was implemented over eight weeks during regular literacy instruction.

The intervention consisted of structured learning activities that included phoneme–picture matching, guided oral reading with picture-supported word cards, picture–word games, and learner journal activities. These activities were designed to strengthen sound–symbol correspondence while promoting active learner engagement.

Throughout the implementation period, classroom observations were conducted to monitor learner participation, pronunciation accuracy, confidence, and reading behaviors. Upon completion of the intervention, the CRLA was administered using the same standardized procedures employed during the pretest to determine changes in learners' phonological accuracy.

Data analysis

Quantitative data obtained from the CRLA were analyzed using descriptive statistics. Frequency counts and percentages were computed to describe learners' instructional reading classifications before and after the intervention.

Pretest and posttest results were compared to determine changes in learners' phonological accuracy and reading proficiency. Qualitative classroom observations were examined to identify patterns of learner engagement, participation, confidence, and responsiveness throughout the implementation of the Picture-Word Association strategy.

The integration of quantitative assessment results and qualitative classroom observations provided a comprehensive evaluation of the effectiveness of the intervention.

RESULTS

This section presents the findings of the study based on the Comprehensive Rapid Literacy Assessment (CRLA) administered before and after the implementation of the Picture–Word Association (PWA) strategy. The results are organized according to the objectives of the study.

Table 1. CRLA Reading Classifications of Grade 1 Learners Before and After the Implementation of the Picture-Word Association Strategy

CRLA Reading Classification	Pretest n (%)	Posttest n (%)
Full Refresher	13 (59)	0 (0)
Moderate Refresher	0 (0)	4 (18)

Light Refresher	0 (0)	4 (18)
Grade Ready	9 (41)	14 (64)
Total	22 (100)	22 (100)

Table 1 shows a marked improvement in the instructional reading classifications of the Grade 1 learners following the implementation of the Picture-Word Association strategy. During the pretest, more than half of the learners (59%) were classified under the **Full Refresher** level, while only 41% were classified as **Grade Ready**. After the eight-week intervention, none of the learners remained under the Full Refresher classification. Instead, 64% attained the Grade Ready level, while the remaining learners progressed to the Moderate Refresher (18%) and Light Refresher (18%) classifications. These findings indicate a positive shift in learners' phonological accuracy and beginning reading proficiency following the implementation of the intervention.

Table 2. Changes in Learners' CRLA Reading Classifications
Following the Intervention

Reading Classification	Pretest	Posttest	Change
Full Refresher	13	0	-13
Moderate Refresher	0	4	+4
Light Refresher	0	4	+4
Grade Ready	9	14	+5

Table 2 further illustrates the movement of learners across instructional reading classifications after the intervention. The complete elimination of the Full Refresher category demonstrates that all learners advanced beyond the lowest instructional level. Likewise, the number of Grade Ready learners increased from nine to fourteen, representing the largest proportion of the class after the intervention.

Although eight learners remained within the Moderate and Light Refresher classifications, all showed improvement from their initial placement, indicating meaningful gains in phonological accuracy and reading readiness.

Classroom Observations During the Implementation

Classroom observations supported the quantitative findings obtained through the CRLA. During the early weeks of implementation, several learners demonstrated hesitation in oral reading and frequently relied on teacher prompts when identifying sounds and decoding unfamiliar words. As the intervention progressed, learners exhibited greater confidence, participated more actively during literacy activities, and demonstrated improved pronunciation and decoding accuracy.

The use of picture-supported instructional materials increased learner engagement during phoneme-picture matching, guided oral reading, picture-word games, and journal activities. Learners also showed increased willingness to read aloud, collaborate with classmates, and complete literacy tasks independently. These observations suggest that

integrating meaningful visual supports into reading instruction promoted active participation and strengthened learners' confidence in beginning reading.

Overall, both the quantitative assessment and classroom observations consistently indicate that the Picture–Word Association strategy contributed to improvements in learners' phonological accuracy, reading readiness, and classroom engagement.

DISCUSSION

The findings of this study demonstrate that the Picture-Word Association (PWA) strategy effectively enhanced the phonological accuracy skills of Grade 1 learners. The complete elimination of learners classified under the Full Refresher level and the increase in those classified as Grade Ready after the intervention indicate that integrating meaningful visual representations with explicit phonological instruction contributed to improved beginning reading performance.

One possible explanation for these improvements is that picture-supported instruction strengthened learners' ability to establish accurate sound–symbol relationships. Beginning readers often experience difficulty connecting printed words with their corresponding sounds, particularly when they have limited phonological awareness. By pairing pictures with printed words and guided oral reading activities, the intervention provided multiple cues that enabled learners to recognize, remember, and accurately pronounce target words. This instructional approach reduced learners' dependence on rote memorization and encouraged meaningful word recognition through repeated exposure to visual and verbal stimuli.

The findings support Paivio's Dual Coding Theory, which posits that information is learned more effectively when processed through both verbal and visual systems. During the intervention, learners simultaneously viewed illustrations, identified corresponding words, and produced the associated speech sounds. This dual processing likely strengthened memory retention and facilitated faster retrieval of phonological information during oral reading activities. The increased learner confidence observed throughout the intervention further suggests that combining visual and verbal cues reduced cognitive demands while promoting successful reading experiences.

The results are likewise consistent with previous studies emphasizing the effectiveness of visual supports in beginning reading instruction. Murphy et al. (2020) reported that strong phonological processing skills are fundamental predictors of early reading achievement. Similarly, Verhoeven et al. (2020) concluded that systematic phonological awareness instruction significantly improves decoding and word recognition among beginning readers. More recent investigations have also shown that picture-supported literacy interventions enhance learners' decoding accuracy, vocabulary acquisition, and reading fluency by reinforcing sound-symbol correspondence and increasing learner engagement. The present study extends these findings by demonstrating that the Picture–Word Association strategy is likewise effective within the context of a Philippine public elementary school using the Comprehensive Rapid Literacy Assessment (CRLA).

Classroom observations further reinforced the quantitative findings. Initially, several learners hesitated during oral reading, frequently relied on teacher prompts, and

demonstrated uncertainty in identifying speech sounds. As the intervention progressed, learners became increasingly confident, actively participated in literacy activities, and demonstrated greater independence in decoding unfamiliar words. The observed improvements in learner engagement suggest that picture-supported activities not only enhanced phonological accuracy but also fostered positive attitudes toward reading. Increased participation during guided reading, picture–word games, and collaborative literacy tasks indicates that learners found the intervention meaningful, motivating, and developmentally appropriate.

The findings also have important implications for classroom instruction. Early literacy interventions are most effective when they provide explicit, systematic, and engaging opportunities for learners to connect spoken language with printed text. The Picture-Word Association strategy offers teachers an accessible and practical instructional approach that can be integrated into regular reading instruction without requiring expensive resources. Because the materials consist primarily of carefully selected pictures and printed words, the strategy is feasible for implementation in public elementary schools with limited instructional resources.

Despite these positive findings, the study has several limitations that should be considered. The research involved only one Grade 1 class in a single public elementary school and employed a one-group pretest-posttest design without a comparison group. Consequently, the findings should be interpreted within the specific context of the study and should not be generalized to all learner populations without further investigation. Future studies may consider involving larger samples, multiple schools, or experimental designs to provide stronger evidence regarding the effectiveness of the Picture–Word Association strategy across different educational settings.

Overall, the findings indicate that integrating picture-supported instructional strategies into early literacy instruction can substantially improve phonological accuracy, learner engagement, and beginning reading performance. The intervention demonstrates considerable potential as a classroom-based approach for strengthening foundational literacy skills among young learners and supports ongoing efforts to improve reading outcomes in Philippine basic education.

CONCLUSION

This study demonstrated that the Picture-Word Association (PWA) strategy effectively enhanced the phonological accuracy skills of Grade 1 learners. The intervention resulted in a substantial improvement in learners' Comprehensive Rapid Literacy Assessment (CRLA) reading classifications, as evidenced by the elimination of the Full Refresher category and the increase in the number of learners who achieved the Grade Ready classification. These findings indicate that integrating picture-supported instructional strategies into beginning reading instruction strengthens learners' ability to establish sound–symbol correspondence, improve decoding skills, and develop greater confidence in oral reading.

Beyond the quantitative gains, classroom observations revealed increased learner participation, engagement, and willingness to read during literacy activities. The integration of meaningful visual representations provided learners with concrete learning supports that facilitated phonological processing and promoted active classroom participation.

The findings affirm that Picture-Word Association is an effective, practical, and learner-centered instructional strategy that can be integrated into regular literacy instruction in public elementary schools. Its use may contribute to strengthening foundational reading competencies among beginning readers and support the Department of Education's continuing efforts to improve early literacy outcomes through evidence-based classroom interventions.

Future studies involving larger samples, multiple schools, and more rigorous research designs are recommended to further establish the effectiveness of the strategy across different educational contexts.

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Conflict of interest

The author declares that there are no conflicts of interest regarding the publication of this manuscript. The study was conducted solely for educational and research purposes, and no financial or commercial interests influenced the design, implementation, analysis, or reporting of the research findings.

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