

A FOUR-SESSION STRUCTURED LITERACY INTERVENTION TO STRENGTHEN EARLY DECODING SKILLS

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Abstract: This study examined the early reading development of a first-grade Indonesian student who participated in a short, structured literacy intervention implemented over two weeks. Using a qualitative case study design, the research focused on the learner's progression in letter-sound knowledge, discrimination of visually similar letters, and early decoding skills. Initial assessment revealed substantial difficulties: the student confused multiple letters, was unable to read simple words, and refused to attempt non-word decoding. The four-session intervention, delivered twice weekly, provided explicit phonics instruction targeting letter recognition, syllable blending, and decoding of simple word patterns. Findings demonstrated notable improvement across all reading components. Observational data indicated increased confidence, more accurate letter-sound retrieval, and clearer discrimination of confusable letters. By the final session, the student successfully decoded four- to five-letter words, albeit through slow, deliberate blending. Pretest– posttest scores further confirmed these gains, with letter fluency rising from 51 to 97, word reading from 16 to 54, and non-word decoding from 0 to 30. The results highlight the effectiveness of brief, structured, phonics-based instruction for beginning readers with early decoding delays and support the use of targeted, short-term interventions in early primary classrooms.

Keywords: Early reading; Structured Literacy; Reading Intervention.

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INTRODUCTION

Early reading development is widely recognized as a critical foundation for later academic achievement, cognitive growth, and long-term literacy outcomes. Research in the past decade consistently shows that children's acquisition of letter-sound knowledge and early decoding skills plays a central role in predicting reading proficiency across the school years (Castles, Rastle, & Nation, 2018; Ehri, 2020). These foundational abilities enable children to move from effortful phoneme-by-phoneme decoding toward more automatic and efficient word reading, a transition essential for comprehension (Perfetti, 2007).

Recent evidence further demonstrates that early reading experiences contribute not only to literacy performance but also to broader cognitive and socioemotional development. Wang et al. (2023), in a large-scale study of early-initiated reading for pleasure, found that children exposed to early reading practices showed superior cognitive functioning, better mental well-being, and more mature brain structures during adolescence. These findings underscore the importance of timely intervention when early reading difficulties are detected.

At the neurodevelopmental level, reading acquisition is associated with significant structural and functional brain changes across childhood. Phan et al. (2021) Demonstrated that the maturation of left-hemispheric language and reading circuits from ages 5 to 15 is closely tied to children's improving reading abilities. Delays in mastering foundational skills such as letter, sound correspondence and simple word decoding may therefore hinder neural specialization and result in slower reading development.

Instructional quality also plays a crucial role in shaping early reading trajectories. Artpasa and Dounghilai (2024) highlight that explicit strategy instruction, and systematic teaching approaches significantly influence primary students' reading literacy in Southeast Asian contexts. Their findings are consistent with recent theoretical frameworks advocating structured, intentional, and cumulative literacy instruction principles emphasized in the Simple View of Reading (Hoover & Tunmer, 2020) and dynamic models of reading development (Kim, 2020).

The assessment conducted at the start of the present study revealed several early literacy challenges frequently documented in the literature: confusion between visually similar letters (e.g., m–n–v–w), slow and effortful decoding, and difficulty blending phonemes to read 3–4 letter words. These challenges align with findings by Yan and Cai (2022), who stress the importance of micro-level reading processes such as accurate phonological decoding in supporting the macro-level reading comprehension skills required for later academic success.

To address these challenges, the present study implemented a short-term, structured, phonics-based intervention designed to strengthen letter discrimination and decoding accuracy in a first-grade Indonesian learner. Over four sessions, the learner showed clear improvement: letter–sound recognition became more consistent, confusion among similar letters decreased, and the child became increasingly capable of decoding 4–5 letter words independently, although still relying on gradual blending. These outcomes are aligned with recent evidence supporting systematic phonics instruction and structured literacy approaches as effective methods for improving beginning reading (Ehri, 2020; Castles et al., 2018).

Given the individualized nature of the intervention and the need to capture subtle developmental changes, a qualitative case study design was adopted. This approach allows for detailed analysis of the learner's decoding behaviors, error patterns, and microlevel reading strategies across sessions. The aim of this study is therefore to examine how a short, structured literacy intervention supports early decoding development and letter– sound

mastery in a beginning reader, grounded in contemporary findings from cognitive science, neuroscience, and reading education.

METHOD

This study adopted a qualitative case study approach in order to examine, in depth, the early reading development of a first-grade student who participated in a short-term structured literacy intervention. A qualitative case study was chosen because it allows for close observation of micro-level reading behaviors, including letter–sound processing, decoding strategies, and the child’s moment-to-moment responses to instruction dimensions that cannot be captured adequately by large-scale quantitative designs.

The participant was a single first-grade student from an Indonesian primary school who exhibited early reading difficulties. The initial assessment revealed that the child still struggled to distinguish several visually similar letters particularly m, n, v, and w and demonstrated slow, effortful decoding of simple three- to four-letter words. Although letter–sound knowledge was partially established, the child was unable to blend sounds efficiently and relied heavily on teacher guidance. The student was otherwise typically developing, engaged, and showed no indications of cognitive or behavioral disorders. The case was selected purposively because it represented the common profile of early-grade readers who experience foundational decoding challenges.

The intervention was implemented over two weeks, with two sessions per week, resulting in a total of four instructional meetings. Each session lasted approximately 30– 40 minutes and followed the principles of Structured Literacy, which emphasize explicit phonics instruction, systematic skill sequencing, and repeated cumulative practice. The first meeting served as an in-depth assessment session to understand the learner’s baseline performance in letter recognition, phonological mapping, and early decoding. The subsequent three sessions focused on strengthening letter–sound correspondence, improving discrimination of confusable letters, and building the ability to decode consonant–vowel (CV) and consonant–vowel–consonant–vowel (CVCV) patterns typical of beginning readers.

Throughout the intervention, instruction was delivered in a highly scaffolded yet responsive manner. Activities included direct modeling of letter–sound relationships, guided decoding practice, controlled text reading, and short reading tasks designed to encourage the learner to blend sounds independently. Each session concluded with a brief evaluation in which the child practiced reading short syllables or simple words to monitor immediate progress. Observational field notes were taken during every session to document changes in decoding behavior, common error patterns, and the learner’s level of independence.

At the end of the fourth session, a post-test was administered to evaluate the child’s progress. This assessment included tasks that measured letter–sound identification, reading of selected

syllables, decoding of familiar and unfamiliar four- to five-letter words, and reading of short phrases. Data from the post-test were triangulated with observational notes and session performance records to construct a comprehensive picture of the child's development across the two-week intervention period.

RESULT AND DISCUSSION

The findings of this two-week intervention show a clear developmental progression in the student's early reading skills. At baseline, the learner demonstrated substantial difficulties in both letter recognition and early decoding, particularly when encountering visually similar letters such as m–n and v–w. The child was unable to read even simple three-letter words and refused to attempt non-word decoding due to embarrassment and low confidence. However, through four structured literacy sessions delivered twice a week, the student exhibited significant growth across all targeted reading components. The following tables summarize the trajectory of progress, followed by detailed explanations of each change observed.

Table 1. Student Progress Across the Four Sessions

Session	Instruction Focus	Observed Performance
1 (Assessment)	Baseline letter & word reading	Confused with many letters; unable to decode words; refused non-words
2	Letter–sound instruction & basic decoding	Better recognition; still confused with m–n, v–w; began decoding with strong support
3	Syllable reading discrimination & letter	Correct reading of simple syllables; blending slow; confidence increasing
4 (Posttest)	Word reading & final evaluation	Accurate decoding of 4–5 letter words; still sounding out slowly

Table 1 illustrates a clear shift from initial reading difficulty to emerging decoding proficiency. In the first session, the child's performance was characterized by uncertainty, avoidance, and limited letter–sound mastery. However, by the second session, improvements were observed as the learner began recognizing more letters and attempting simple decoding tasks. Although the student continued to confuse the letters m–n and v–w, the ability to attach sounds to letters became more consistent.

By the third session, the child could accurately read simple syllables such as ma, me, and mi, though blending remained slow and overt. Confidence also increased, suggesting the instructional approach not only strengthened skills but also supported emotional readiness to

read. By the final meeting, the learner successfully decoded four- to five-letter words—an ability that was entirely absent at the start. While the reading remained effortful and heavily reliant on sounding-out, the improvement in accuracy marked a substantial shift in early literacy development.

Table 2. Summary Checklist of Skill Development

Skill	S1	S2	S3	S4
Letter recognition	Emerging	Emerging	Proficient	Proficient
Letter-sound knowledge	Not yet	Emerging	Emerging	Proficient
Similar letter discrimination	Not yet	Not yet	Emerging	Emerging
Syllable reading	Not yet	Emerging	Emerging	Proficient
Word reading	Not able	With help	Slow but accurate	Accurate (still sounding out)
Non-word decoding	Refused	Not yet	Willing	Accurate

Table 2 provides a more detailed overview of the learner’s skill-specific progression. Letter recognition transitioned from "emerging" in the first two sessions to "proficient" in the final sessions, aligning with the child’s growing ability to retrieve letter-sound associations more quickly. This improvement was foundational for subsequent decoding development.

A particularly notable pattern is seen in non-word decoding. Initially, the child refused to attempt non-words, a common response among struggling early readers who rely heavily on memorized whole words. However, by the third session, the student displayed increased willingness and, by the fourth session, could decode non-words accurately. This shift indicates not only increased confidence but also the acquisition of genuine phonics-based decoding rather than mere word memorization.

Distinguishing similar letters showed slower improvement, remaining in the “emerging” category by the end of the intervention. This is consistent with prior findings that letter pairs with similar visual features often require longer and more repetitive exposure before mastery is achieved. Nonetheless, the movement from “not yet” to “emerging” indicates positive development.

Table 3. Pretest–Posttest Reading Scores

Measure	Pretest	Posttest
Letter Fluency	51	97
Word Reading	16	54
Non-word Reading	0	30
Total Score	67	181

The pretest–posttest comparison provides quantitative confirmation of the qualitative observations. Letter-fluency almost doubled, rising from 51 to 97, showing that the student gained substantial accuracy and speed in recognizing letters. Word reading increased from 16 to 54 points, indicating improved decoding of familiar and semi-familiar words.

The most striking development appears in non-word reading: the learner moved from complete refusal (score 0) to achieving a score of 30 in the posttest. This growth demonstrates that the child learned to apply phonics rules productively, decoding novel letter strings rather than relying solely on memorized sight words. The total score improvement from 67 to 181 reflects a substantial overall acceleration in early reading skills across all domains.

Discussion

This case study shows that a brief and targeted structured literacy intervention can produce meaningful gains in early reading skills, particularly decoding. Early improvements such as those seen in this child are critical, as prompt remediation can prevent reading difficulties from becoming long-term barriers to learning (Hoover & Tunmer, 2020).

Prior to intervention, the learner demonstrated key markers of word-level reading difficulty including weak grapheme–phoneme mapping (Perfetti, 2007), confusion with look-alike letters such as m–n and v–w (Stevens et al., 2021), and high avoidance behavior when reading unfamiliar words (Lindström & Roberts, 2022). These characteristics are widely recognized as early predictors of reading disability risk (Boucher et al., 2023).

After structured phonics sessions, the student’s accuracy in identifying previously unknown letters improved, reinforcing the view that explicit phonics instruction directly strengthens alphabetic knowledge (Castles et al., 2018). His ability to decode non-words by the final meeting indicates genuine phonological blending rather than memorization (Boucher et al., 2023).

Decoding progress always begins with accuracy before fluency emerges (Ehri, 2020). A gradual shift from letter-by-letter sounding-out to smoother blending illustrates the expected developmental sequence of reading skill acquisition (Kim, 2020). Short-term structured repetition also plays a key role in stabilizing emerging decoding skills (Romig & Jetton, 2023).

A crucial finding from this case is the learner's growing willingness to take reading risks. Motivation and emotional readiness strongly influence literacy performance (Artpasa & Dounghilai, 2024). In Indonesian primary education, guidance support embedded in learning has been shown to contribute to students' psychological well-being, confidence, and willingness to participate in challenging academic tasks (Muqodas et al., 2020). The child's shift from refusal to active participation reflects both cognitive and emotional gains.

Early intervention not only improves present decoding skills but also prevents the accumulation of literacy gaps that become harder to remediate in later grades (Wang et al., 2023). Even short-duration reading practice can influence long-term literacy trajectories if instruction directly targets core cognitive mechanisms (Stevens et al., 2021).

Neuroscience research confirms that improving orthographic–phonological mapping activates and strengthens reading-related neural networks in the left hemisphere (Phan et al., 2021). This aligns with the child's progression toward integrating letters, sounds, and syllables during intervention.

International evidence supports that systematic phonics yields significant improvement for early grade learners (National Reading Panel, 2000). In Sweden, poor readers given phonics-focused supports showed measurable gains in both word and pseudoword reading (Levlin & von Mentzer, 2020). Meta-analysis in the Indonesian context also confirms phonics as an effective approach for foundational reading instruction in early grades (Hadi et al., 2023).

Studies with slow learners further emphasize that improvement is possible even when reading fluency remains limited at first, as decoding becomes more automatic with continued practice (Purnomo & Royanto, 2022). Teacher-delivered interventions that are short, consistent, and explicitly scaffolded are most effective for young students with word-level deficits (Ismail, 2024).

Finally, the present results highlight the role of teachers: consistent instructional adjustments and support are essential for ensuring engagement and literacy gains (Wahyuni, 2024). These findings collectively strengthen the argument that explicit, systematic phonics instruction implemented early and paired with supportive engagement strategies can shift the learning trajectory of students at risk of reading failure (Castles et al., 2018).

CONCLUSION

The results of this intervention demonstrate that a structured, phonics-based approach can effectively support early readers who show foundational decoding difficulties. At the beginning of the study, the child struggled to recognize several alphabetic symbols, particularly visually similar letters, and was unable to decode even short words. Reading attempts were characterized by high avoidance and uncertainty, indicating both cognitive and motivational barriers to literacy development.

Throughout the four intervention sessions, explicit and systematic instruction in letter– sound correspondence, visual discrimination of similar letters, and guided blending of syllables enabled gradual strengthening of core reading skills. Progress was first observed in accurate letter recognition, followed by improved blending of syllables, and ultimately successful decoding of 4–5 letter words even though reading remained slow and dependent on sounding-out strategies. These learning patterns reflect a typical developmental sequence in early reading acquisition in which accuracy precedes fluency. Equally important, the child’s willingness to engage with reading tasks improved across sessions. The shift from refusal to active participation shows that building success experiences and instructional support can reinforce confidence, enjoyment, and persistence affective elements that are critical to sustaining long-term reading progress.

Overall, this study confirms that when early assessment identifies specific literacy weaknesses and intervention directly targets those skills, meaningful gains can be achieved within a short period. Although the improvement has not yet reached automaticity and fluency, the foundational skills required to progress toward independent reading have begun to solidify. Continued exposure and extended practice are therefore expected to further enhance the learner’s speed, accuracy, and comprehension.

In conclusion, the findings provide clear evidence that early, explicit, and well- scaffolded phonics instruction can positively change the trajectory of a child at risk for reading difficulties, preventing the widening of academic gaps in later schooling. This intervention offers practical implications for classroom teachers and specialists in Indonesian primary schools highlighting that early action, matched with supportive instructional interaction, can be both impactful and efficient in fostering successful literacy development.

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