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Effectiveness of the READI Model in Foundational Reading Literacy Across Diverse Primary Education Contexts

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Abstract. The persistent problem of low early reading proficiency among primary school students represents a global educational challenge, as evidenced by national literacy assessments and international learning poverty reports. This study examines the READI Model (Reading Engagement and Development for Initial Literacy) as an integrative pedagogical approach designed to strengthen foundational reading literacy by combining phonological instruction, learner engagement, and sociocultural support. Using a mixed-methods sequential explanatory design, the study involved 90 students and 9 teachers from primary schools situated in urban, semi-urban, and rural contexts in Indonesia. Quantitative results indicated substantial improvement across key foundational reading domains, including phonemic awareness, letter-sound knowledge, reading fluency, and comprehension. These findings were reinforced by qualitative evidence highlighting adaptive teaching practices, active student participation, and strengthened school-family collaboration as central mechanisms supporting literacy development. The study demonstrates that the READI Model offers a scalable and context-responsive framework for early literacy instruction. Its integration of cognitive, motivational, and sociocultural dimensions provides important implications for literacy policy, teacher professional development, and the design of inclusive foundational literacy interventions in diverse educational contexts globally.

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1. Introduction

The phenomenon of low early reading proficiency among primary school students remains a serious educational concern. Data from the 2022 *Minimum Competency Assessment (MCA)* indicate that more than 30% of Indonesian primary school students did not meet the minimum literacy threshold (Septiani & Kholid, 2023; Yamtinah et al., 2023). UNESCO (2022) further reported that seven out of ten children aged ten in developing countries experience *learning poverty*, being unable to comprehend simple written texts (Lamada et al., 2022; Rapi et al., 2023).

This condition highlights that the issue of early reading difficulties is not merely a local challenge but a global crisis. Its implications extend beyond poor academic achievement across subjects, affecting students' learning motivation and active participation in classroom processes (Eker & Yildizli, 2025). Preliminary research in four primary schools in West Java revealed that among 100 lower-grade students, approximately 35% struggled to recognize letters, 28% were unable to read simple words fluently, and only a small fraction could understand short passages. These findings reflect a clear gap between curriculum expectations and students' actual competencies, underscoring the urgent need for effective early reading instruction strategies to secure literacy as a fundamental right for every child.

A growing body of research has confirmed that foundational reading skills are critical prerequisites for academic success in primary education. Empirical studies have demonstrated the effectiveness of systematic phonemic and phonics instruction (Lane et al., 2025), cognitively oriented reading training (Müller et al., 2015), and fluency-focused interventions such as assisted repeated reading (Xin & Yunus, 2020). Large-scale international assessments further indicate that teachers' instructional strategies play a decisive role in students' reading achievement (Zheng & Xiao, 2025), while affective dimensions such as reading motivation and empathic comprehension are closely associated with sustained literacy development (Heyne & Hermann, 2025).

However, despite these advances, prior research remains largely fragmented. Many approaches emphasize isolated dimensions of reading—either cognitive decoding skills, fluency practice, or motivational support—without systematically integrating these components within a unified instructional framework. Moreover, several well-established models have been developed and validated primarily in specific sociocultural or high-resource contexts, raising questions about their adaptability and scalability across diverse educational settings, particularly in contexts affected by learning poverty and limited instructional resources (Washburn & Pierce, 2025).

Responding to these limitations, this study introduces the READI Model (Reading Engagement and Development for Initial Literacy) as an integrative pedagogical framework designed to holistically strengthen early reading literacy. The READI

model consists of five interrelated components: Recognition (phonemic and phonics awareness), Engagement (reading motivation and interest), Application (strategic and communicative reading practice), Development (reading fluency and comprehension), and Integration (school-home literacy connections).

Unlike prominent global literacy models such as Concept-Oriented Reading Instruction (CORI), which primarily emphasizes motivation-driven comprehension (Wigfield et al., 2014), Reading to Learn (R2L), which focuses on genre-based scaffolding (Herazo et al., 2021), or Early Literacy (EL) frameworks that prioritize cognitive decoding skills (Manten et al., 2020), the READI Model uniquely combines phonological foundations, affective engagement, and sociocultural integration within a single adaptive structure. This comprehensive design enables teachers to address multiple dimensions of early literacy simultaneously, rather than sequentially or in isolation.

Beyond its local application, the READI Model is designed to respond to global challenges in foundational literacy development, particularly in low- and middle-income contexts where disparities in instructional quality, teacher preparedness, and family literacy support persist. By integrating school-based instruction with home literacy practices and emphasizing teacher adaptability, the model aligns with international calls for scalable, inclusive, and context-responsive literacy interventions to address learning poverty.

Accordingly, this study aims not only to examine the contribution of the READI Model to improving early reading skills among primary school students but also to position the model within the broader global discourse on early literacy innovation and education policy. The central research question guiding this study is: How does the implementation of the READI Model contribute to the development of foundational reading skills among primary school students across diverse educational contexts?

2. Theoretical Framework

The theoretical framework of this study provides the foundation for the READI Model by integrating cognitive theories of early reading, reading engagement and motivation, and sociocultural perspectives to support holistic early literacy development.

2.1 Cognitive Foundations of Early Reading Acquisition

Early reading acquisition is widely understood as a multidimensional cognitive process involving the interaction of several core components that jointly shape foundational reading literacy (Flanigan, 2007; Lundberg, 2009). Contemporary reading theories emphasize that early literacy development cannot be reduced to a single skill, but rather emerges from the coordinated functioning of phonological awareness, letter-sound knowledge, and rapid automatized naming (RAN), which together support efficient decoding and word recognition (Hulme & Snowling, 2013; Supriyadi et al., 2019; Zugarramurdi et al., 2022). These components align with the Simple View of Reading, which conceptualizes reading comprehension as the product of decoding and linguistic comprehension,

thereby positioning phonological processing as a necessary – but not sufficient – condition for successful reading development (Duke & Cartwright, 2021).

Beyond these core components, cognitive functioning related to fluid reasoning (Gf), crystallized intelligence (Gc), and executive functions (EFs) plays a critical supporting role in early reading development by facilitating problem solving, rule application, working memory, and attentional control during reading tasks (Mariotti et al., 2020). These higher-order cognitive processes help learners manage cognitive demands when transitioning from letter recognition to fluent and meaningful reading, particularly in the early grades.

From a systems perspective, these cognitive components operate in an interdependent manner rather than as isolated skills. For instance, phonological awareness enables decoding, while executive functions regulate attention and cognitive load during reading tasks—an interaction consistent with Cognitive Load Theory, which emphasizes the importance of instructional designs that optimize working memory capacity in early learning (Sweller et al., 2022). Within the READI Model, these cognitive foundations are operationalized primarily in the Recognition and Development phases, where structured phonemic instruction and progressive fluency practice are designed to reduce extraneous cognitive load while strengthening automaticity and comprehension.

2.2 Engagement and Motivation in Literacy Development

While cognitive skills form the foundation of early reading, sustained literacy development depends heavily on learners' engagement and motivation. Motivation theory, particularly Self-Determination Theory (Ryan & Deci, 2000), highlights the role of intrinsic motivation driven by autonomy, competence, and relatedness in fostering persistent learning behaviors. Empirical studies consistently show that motivated readers demonstrate greater persistence, deeper comprehension, and stronger long-term literacy outcomes (Guthrie & Wigfield, 2017; Zasacka, 2020).

Motivation and reading ability are reciprocally related: early reading success enhances motivation, while motivational engagement increases the likelihood of continued reading practice (Cubillos & Troncoso, 2025). However, previous literacy models often treat motivation as a supplementary factor rather than an integral pedagogical component (Herazo et al., 2021; Manten et al., 2020; Wigfield et al., 2014). This limitation is evident in skills-driven frameworks that emphasize decoding proficiency without sufficiently addressing affective engagement, particularly in low-resource or diverse sociocultural contexts.

In the READI Model, motivation and engagement are systematically embedded within the Engagement and Application phases. Drawing on Bandura's social cognitive theory, these phases emphasize self-efficacy, peer interaction, and positive feedback as mechanisms to strengthen learners' confidence and willingness to engage in reading activities (Schunk & DiBenedetto, 2022).

2.3 Sociocultural Contexts of Literacy Learning

From a sociocultural perspective, literacy is not merely an individual cognitive achievement but a socially situated practice shaped by cultural norms, family environments, and community interactions (Prinsloo & Krause-Alzaidi, 2022; Skerrett, 2020). Family literacy models further emphasize that children's reading development is significantly influenced by home literacy practices, parental involvement, and shared reading experiences, particularly during the early years (Mudrák et al., 2020; Zhu et al., 2024).

Despite strong evidence supporting sociocultural influences (Dobberfuhl-Quinlan, 2018; Eun, 2010), many instructional models fail to translate these insights into structured pedagogical mechanisms. Sociocultural theory is often acknowledged conceptually but remains weakly operationalized in classroom practice. The READI Model addresses this gap through its Integration phase, which explicitly connects school-based reading instruction with home literacy practices. This phase operationalizes sociocultural theory by engaging families as active partners in literacy development and positioning reading as a shared social activity rather than a purely academic task (August & Henderson, 2025; Esteve et al., 2018).

Synthesizing cognitive, motivational, and sociocultural perspectives, the READI Model conceptualizes early literacy development as a synergistic process rather than a linear sequence of skills. Cognitive processes provide the structural foundation for decoding and comprehension; motivational engagement sustains reading practice and persistence; and sociocultural contexts extend literacy learning beyond the classroom. Conceptually, the five READI components—Recognition, Engagement, Application, Development, and Integration—represent pedagogical translations of these theoretical pillars (Figure 1).

Recognition and Development correspond to cognitive foundations; Engagement and Application operationalize motivational and self-efficacy theories; and Integration reflects sociocultural and family literacy models. This integrated framework positions the READI Model as theoretically grounded, pedagogically coherent, and adaptable across diverse educational contexts, addressing both individual cognitive development and broader systemic challenges such as learning poverty and inequitable access to early literacy support.

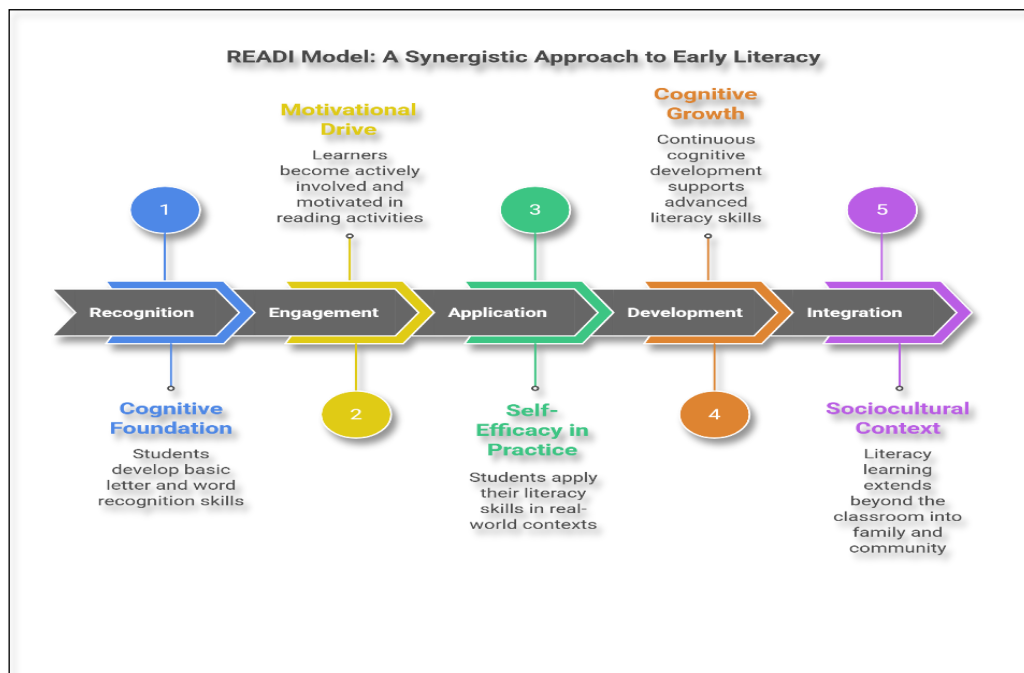


Figure 1: READI Model: A Synergistic Approach to Early Literacy

3. Methodology

3.1 Design and Research Procedure

This study employed a mixed-methods sequential explanatory design (Creswell & Creswell, 2017) to obtain a comprehensive understanding of the READI Model's contribution to early reading development. In this design, the quantitative phase was conducted first to examine changes in students' foundational reading skills following the intervention and was subsequently followed by a qualitative phase aimed at explaining and contextualizing the quantitative results through teachers' pedagogical experiences.

This design was selected because it allows for systematic integration of outcome-based evidence with process-oriented insights, thereby strengthening internal validity and interpretative depth (Creswell & Plano Clark, 2023). Specifically, quantitative findings informed the focus of qualitative inquiry, enabling explanatory integration rather than parallel analysis. The methodological choice is theoretically grounded in cognitive, affective, and sociocultural perspectives on literacy development (Davidson, 2010; Skerrett, 2020), ensuring alignment between the analytical framework and the READI Model's conceptual foundations

3.2 Participants and Site

The participants comprised 90 first- and second-grade students from three public primary schools in Sumedang Regency, Indonesia, representing urban, transitional (semi-urban), and rural contexts. The schools were selected using purposive stratified sampling to ensure contextual variation in terms of geographical setting, school resources, and community characteristics. Student participants were included based on the following criteria: (1) enrollment in

Grade 1 or 2, (2) regular attendance during the intervention period, and (3) no identified learning disabilities requiring specialized instruction. The sample included 46 boys and 44 girls, aged 6–8 years.

In addition, nine early-grade teachers (three from each school) participated in the qualitative phase. Teachers were selected purposively based on their direct involvement in implementing the READI Model and their willingness to participate in interviews and reflective documentation. The selection of schools across different contexts was intended to explore the model's applicability while acknowledging potential school-level clustering; therefore, findings are interpreted with attention to contextual variation rather than broad statistical generalization. Demographic details are presented in Table 1.

Table 1: Demographic Profile of Research Participants

Category	Cluster			Total
	Urban	Transitional (Semi-Urban)	Rural	
Number of Students	30	30	30	90
Boys	16	15	15	46
Girls	14	15	15	44
Early-Grade Teachers (Qualitative Phase)	3	3	3	9

3.3 Data Collection

Data were collected in two sequential phases in accordance with the mixed-methods design. In the quantitative phase, data were obtained using a foundational literacy test and structured classroom observation sheets. The literacy test consisted of items assessing phonemic awareness, letter-sound knowledge, reading fluency, and reading comprehension, aligned with early-grade curriculum standards. Observation sheets were used to document students' engagement and instructional fidelity during implementation. In the qualitative phase, data was collected through semi-structured teacher interviews and reflective journals.

Interview protocols focused on instructional adaptation, student engagement, and contextual challenges, while reflective journals documented teachers' ongoing pedagogical experiences. All instruments were reviewed and adapted prior to use to ensure clarity and contextual relevance. Data collection procedures were standardized across research sites through researcher training, uniform protocols, and consistent scheduling, thereby ensuring validity, reliability, and comparability.

3.4 Data Analysis

Quantitative data were analyzed using descriptive statistics, paired-sample t-tests, and N-Gain analysis to evaluate changes in students' foundational reading skills (Fraenkel et al., 2012). Prior to inferential analysis, assumption testing for normality and homogeneity was conducted to ensure the appropriateness of parametric procedures. Qualitative data were analyzed using thematic analysis following systematic stages of familiarization, coding, theme development, and

refinement (Braun et al., 2021). To enhance analytical rigor, coding was independently reviewed by two researchers, and discrepancies were resolved through discussion to establish inter-rater agreement. Integration of quantitative and qualitative findings was conducted using an explanatory side-by-side approach, in which qualitative themes were used to interpret and explain quantitative trends.

3.5 Materials

The research materials consisted of early reading instructional resources developed in alignment with the READI Model. These included (1) a reading instruction module outlining lesson objectives and procedures; (2) leveled reading texts matched to students' reading progression; (3) reflective activity sheets to support comprehension and engagement; and (4) a teacher's guidebook providing instructional scaffolding and assessment guidance. These materials supported phonological, affective, and sociocultural dimensions of learning and are illustrated in Figure 2. In addition, a multisensory learning tool, the Smart Reading Box (Kotak Pintar Membaca)—containing letter, syllable, and picture cards—was used to facilitate phoneme recognition, decoding, and meaning construction through interactive activities, as shown in Figure 3. All materials were validated by experts in children's literacy and pedagogy to ensure developmental appropriateness and cultural relevance.



Figure 2: Early Reading Instruction Module



Figure 3: Smart Reading Box

3.6 Validity and Reliability

Instrument validity and reliability were systematically examined to ensure measurement accuracy. Content validity was established through expert judgment involving three specialists in language education, children's literacy, and psychometrics, yielding an average coefficient of 0.87 (Fraenkel et al., 2012). Internal consistency reliability, assessed using Cronbach's Alpha, produced a coefficient of 0.76, indicating acceptable reliability. For qualitative data, trustworthiness was ensured through credibility (triangulation of interviews and journals), dependability (audit trail of analysis procedures), confirmability (peer debriefing), and transferability (thick contextual description).

3.7 Implementation of the READI Model

The READI Model was implemented over six weeks in three primary schools, with two sessions per week. The intervention was conducted by classroom teachers, while researchers acted as observers and facilitators of reflection. The learning process followed five sequential phases: Recognition, Engagement, Application, Development, and Integration, each supported by structured activities, teacher adaptation, and ongoing observation. Teachers adjusted instructional pacing and materials based on students' responses and contextual constraints. A detailed summary of objectives, instructional actions, and expected outcomes for each phase is presented in Table 2, which remains unchanged in structure but is interpreted as a guide for instructional monitoring and evaluation.

Table 2: Summary Matrix of the READI Model Implementation

READI Model Phase	Learning Objectives	Main Instructional Actions	Expected Learning Outcomes
Recognition (Phonemic and Phonics Awareness)	Develop the ability to recognize sounds and letters as the foundation of reading.	<ol style="list-style-type: none"> 1. Teachers introduce phonemes and graphemes using the <i>Smart Reading Box</i>. 2. Students practice syllable games and sound matching activities. 	Students can identify letter Sound relationships and read simple words.
Engagement (Reading Motivation and Interest)	Foster interest and positive engagement in reading.	<ol style="list-style-type: none"> 1. Teachers use contextual texts and collaborative reading activities such as <i>story circles</i>. 2. Provide positive reinforcement and emotional reflection. 	Students become enthusiastic and actively involved in reading activities; intrinsic motivation is developed.
Application (Reading Strategy Practice)	Train students to apply basic reading strategies to comprehend text meaning.	<ol style="list-style-type: none"> 1. Students read in pairs (<i>paired reading</i>) and answer simple comprehension questions. 2. Teachers provide feedback on 	Students read fluently and comprehend basic text content.

		pronunciation and understanding.	
Development (Reading Fluency and Comprehension)	Improve fluency and comprehension through leveled practice.	Students read graded texts, answer questions, and retell the content.	Students achieve greater reading fluency and comprehension.
Integration (School-Home Literacy Connection)	Link school-based literacy experiences with home environments.	Implement <i>home reading projects</i> with parental support and classroom reflection.	Sustainable reading habits are established, fostering school-family collaboration.

4. Results

4.1 Quantitative Findings

Descriptive and inferential analyses were conducted on data from 90 primary school students across three regional clusters – urban, transitional (semi-urban), and rural – to examine changes in foundational reading skills following the six-week implementation of the READI Model. The evaluation focused on four indicators: Phonemic Awareness (PA), Letter-Sound Knowledge (LSK), Reading Fluency (RF), and Reading Comprehension (RC), measured through pre-test and post-test comparisons. Descriptive statistics for each cluster are presented in Table 3.

Table 3: Descriptive Statistics of Foundational Reading Skills by Cluster (n = 90)

Reading Skill Indicator	School Cluster	N	Pre-Test Mean	Pre-Test SD	Post-Test Mean	Post-Test SD	N-Gain	Effectiveness Category
Phonemic Awareness (PA)	Urban	30	64.10	7.90	83.50	7.20	0.72	High
	Transitional	30	62.30	8.10	81.60	7.40	0.70	High
	Rural	30	61.50	8.60	79.80	7.90	0.67	Moderate
Letter-Sound Knowledge (LSK)	Urban	30	65.70	8.00	85.40	7.50	0.75	High
	Transitional	30	63.40	8.50	82.10	7.60	0.71	High
	Rural	30	62.20	8.70	80.30	8.10	0.69	Moderate
Reading Fluency (RF)	Urban	30	66.30	8.40	86.00	7.80	0.76	High
	Transitional	30	64.10	8.90	83.00	7.90	0.72	High
	Rural	30	63.10	9.10	81.00	8.20	0.70	High
Reading Comprehension (RC)	Urban	30	64.70	7.80	85.50	7.60	0.76	High
	Transitional	30	62.60	8.20	82.00	7.70	0.71	High
	Rural	30	61.80	8.90	80.20	8.30	0.69	Moderate
Overall Average (90 students)	–	–	63.99	8.32	83.44	7.70	0.72	High

Table 3 shows a consistent increase in post-test scores across all indicators and clusters. Overall pre-test means ranged from 61.50 to 66.30, increasing to 79.80–86.00 at post-test. The urban cluster demonstrated the highest normalized gains for Letter-Sound Knowledge, Reading Fluency, and Reading Comprehension (N-Gain = 0.75–0.76), followed by the transitional cluster (0.70–0.72), while the rural cluster showed slightly lower but still meaningful gains (0.67–0.70).

Rather than indicating superiority of a particular context, these differences likely reflect variations in instructional resources, classroom conditions, and prior literacy exposure, which may influence the magnitude of observed gains. Importantly, all clusters reached moderate-to-high effectiveness levels, suggesting that the READI Model supported literacy improvement across diverse school settings.

Across all students, the combined mean score increased from 63.99 (SD = 8.32) to 83.44 (SD = 7.70), with an average N-Gain of 0.72, indicating substantial learning progress. These results indicate that the READI Model contributed positively to the development of foundational reading skills across indicators. Prior to inferential analysis, statistical assumptions for parametric testing were examined. Normality was assessed using the Shapiro-Wilk test (Table 4), and homogeneity of variances was evaluated using Levene's Test (Table 5). All significance values exceeded 0.05, indicating that the data met the assumptions of normal distribution and homogeneity across clusters.

Table 4: Test of Normality (Shapiro-Wilk)

Reading Skill Indicator	School Cluster	Statistic	df	Sig.
Phonemic Awareness (PA)	Urban	0.971	30	0.514
	Transitional	0.965	30	0.422
	Rural	0.959	30	0.368
Letter-Sound Knowledge (LSK)	Urban	0.975	30	0.583
	Transitional	0.972	30	0.497
	Rural	0.961	30	0.351
Reading Fluency (RF)	Urban	0.968	30	0.439
	Transitional	0.963	30	0.393
	Rural	0.955	30	0.329
Reading Comprehension (RC)	Urban	0.970	30	0.475
	Transitional	0.965	30	0.415
	Rural	0.958	30	0.340

Table 5: Test of Homogeneity of Variances (Levene's Test)

Reading Skill Indicator	Levene Statistic	df1	df2	Sig.
Phonemic Awareness (PA)	1.129	2	87	0.328
Letter-Sound Knowledge (LSK)	1.176	2	87	0.313
Reading Fluency (RF)	1.241	2	87	0.294
Reading Comprehension (RC)	1.093	2	87	0.339

To determine whether the observed improvements were statistically significant, paired-sample t-tests were conducted for each reading indicator. Results are presented in Table 6.

Table 6: Paired Samples Test (Pre-Test vs. Post-Test)

Reading Skill Indicator	Mean Difference (Post-Pre)	t	df	Sig. (2-tailed)
Phonemic Awareness (PA)	18.33	13.21	89	0.000
Letter-Sound Knowledge (LSK)	18.84	14.06	89	0.000
Reading Fluency (RF)	18.83	13.72	89	0.000
Reading Comprehension (RC)	19.54	14.28	89	0.000

All four indicators showed statistically significant improvements from pre-test to post-test ($p < 0.001$). The largest mean difference was observed in Reading Comprehension (MD = 19.54, $t = 14.28$, $df = 89$), followed by Letter-Sound Knowledge (MD = 18.84), Reading Fluency (MD = 18.83), and Phonemic Awareness (MD = 18.33). The consistently high t -values indicate a strong within-group improvement following the intervention.

To examine whether post-test outcomes differed across school contexts, a one-way ANOVA was conducted on post-test scores for each indicator (Table 7). No statistically significant differences were found among the urban, transitional, and rural clusters ($p > 0.05$), with F -values ranging from 1.06 to 1.17. These results suggest that learning gains were relatively uniform across contexts, indicating that the READI Model functioned comparably in different social and geographical settings. This finding should be interpreted cautiously, acknowledging the sample size and the potential influence of unmeasured contextual factors.

Table 7: One-Way ANOVA Results by School Cluster (Post-Test Scores)

Reading Skill Indicator	Sum of Squares Between Groups	df	Mean Square	F	Sig.
Phonemic Awareness (PA)	242.41	2	121.21	1.06	0.352
Letter-Sound Knowledge (LSK)	278.65	2	139.33	1.17	0.314
Reading Fluency (RF)	256.94	2	128.47	1.09	0.339
Reading Comprehension (RC)	261.78	2	130.89	1.12	0.331

These findings demonstrate that the effectiveness of the READI Model is not influenced by social or geographical differences among schools. The model consistently produced positive and inclusive learning outcomes, showing adaptability to varied educational environments – from urban to rural settings. To gain a deeper understanding of the implementation process and the factors that supported its success, qualitative analyses were conducted through interviews and classroom observations. These analyses revealed the pedagogical dynamics and contextual elements that underpinned the effectiveness of the READI Model in enhancing early literacy learning.

4.2 Qualitative Findings

Qualitative analysis was conducted to explore how and why the READI Model contributed to students' learning improvements. Data were derived from semi-structured teacher interviews and reflective journals, yielding 735 meaningful statements. Analysis followed thematic analysis procedures as proposed by Braun and Clarke (2021), using an inductive approach involving familiarization, coding,

theme development, and refinement. Three themes were identified to explain the pedagogical and contextual mechanisms underlying the quantitative gains.

Theme 1: Adaptation of Teaching Strategies by Teachers

The findings indicated that the effectiveness of the READI Model is strongly influenced by teachers' ability to adapt instructional strategies according to students' characteristics and the contextual realities of their schools. Although the model provides a systematic framework, teachers in each cluster modified the approach to align with students' initial reading abilities, learning culture, and available resources in their respective environments. This adaptability is reflected in several teachers' statements:

"In the Recognition phase, we combined it with alphabet songs and sound games so students could recognize phoneme patterns more quickly. They learn better while singing." (Urban Teacher, W1)

"We adjusted the Engagement activities to suit classroom conditions. In our school, many students are shy, so we used group-based reading sessions to help them gain confidence." (Transitional Teacher, W2)

"Due to limited facilities, we created our own letter cards from recycled materials. The children were still enthusiastic when using them for reading practice." (Rural Teacher, W3)

These interview excerpts show that teachers across all clusters effectively acted as adaptive facilitators. Their creativity and flexibility enabled the READI Model to be implemented contextually while maintaining its core objectives. Such adaptations ensured that the model's pedagogical goals were achieved without neglecting the social realities and local resources of each school community.

Theme 2: Active Student Engagement and Enthusiasm

Classroom observations revealed a noticeable increase in students' participation and motivation across all school clusters. The interactive approaches embedded in each phase of the READI Model fostered confidence and enjoyment in learning to read.

"Our students really enjoy playing with the Smart Reading Box. They compete to identify letters correctly." (Urban Teacher, W4)

"Students who used to be passive are now confident enough to read aloud in front of their peers. The story circle activity helps them support each other." (Transitional Teacher, W5)

"Even though their initial reading ability was low, they became more confident after receiving praise and encouragement each time they successfully read a simple sentence." (Rural Teacher, W6)

These statements illustrate that students' active engagement was consistently evident across all clusters. The READI Model successfully fostered learning engagement through a blend of phonological instruction, literacy-based games, and affective reinforcement. Students not only improved their technical reading abilities but also developed intrinsic motivation and self-confidence throughout the learning process.

Theme 3: Collaborative Learning Environment Support

The successful implementation of the READI Model was also strengthened by collaboration among teachers, students, and parents. The home reading project served as an effective medium to extend literacy practices from school to home, ensuring continuity between formal and informal learning environments.

“We asked parents to record their children’s reading activities in a literacy journal. Students became more enthusiastic because they received attention from their families.” (Urban Teacher, W7)

“Every week we asked students to share stories about the books they read at home. This activity made them more open and prouder of their progress.” (Transitional Teacher, W8)

“Many parents in rural areas started reading together with their children every night. This helps us maintain the reading habit at home.” (Rural Teacher, W9)

The data indicate that family and community support significantly strengthened the impact of the READI Model. Parental involvement emerged as a crucial factor in fostering a sustainable literacy culture, ensuring that reading activities extended beyond the classroom into children’s daily lives. Thus, the READI Model functions not only as a pedagogical innovation but also as a social empowerment mechanism that expands the child’s literacy ecosystem.

The qualitative findings reinforce the quantitative results, confirming that the READI Model effectively enhances early reading skills across diverse contexts. Three central themes—teacher strategy adaptation, active student engagement, and collaborative learning environment support—constituted the key factors underlying its success. Teachers adapted instructional strategies to their classroom characteristics, students demonstrated higher motivation and confidence, and family participation through home reading extended literacy practices beyond school. This pedagogical, social, and emotional synergy positions the READI Model as an effective, adaptive, and sustainable innovation for foundational literacy instruction across varied social and geographical settings.

5. Discussion

This study examined the effectiveness of the READI Model (*Reading Engagement and Development for Initial Literacy*) in improving foundational reading skills among primary school students across diverse contexts. Quantitative findings demonstrated statistically significant improvements in all four indicators—Phonemic Awareness (PA), Letter-Sound Knowledge (LSK), Reading Fluency (RF), and Reading Comprehension (RC)—with a high average N-Gain (0.72). These results directly address the research question and indicate that the READI Model yields meaningful educational impact rather than marginal gains.

The absence of significant differences across urban, semi-urban, and rural clusters suggests that the READI Model operates as an inclusive and context-adaptive framework. This finding has practical implications for literacy policy, indicating that integrative early reading interventions can mitigate disparities often

associated with geographical and social contexts. The inclusion of Khosa, (2024) and Lane et al. (2025) situates these findings within broader evidence showing that coherent and engagement-oriented literacy instruction tends to produce consistent outcomes across heterogeneous learner populations.

While quantitative results explain *what* improved, qualitative findings clarify *why* the model was effective. Data from interviews, classroom observations, and reflective journals revealed three interrelated mechanisms: teachers' adaptive instructional strategies, active student engagement, and sustained school-family collaboration. Teachers' flexibility ensured that systematic phonological instruction remained responsive to classroom realities, while emotionally supportive and interactive activities enhanced students' motivation and persistence. Parental involvement extended literacy practices beyond the classroom, reinforcing continuity and practice. Together, these mechanisms functioned synergistically to drive improvements across all reading indicators.

The findings support integrative literacy theories that conceptualize reading development as a multidimensional process involving cognitive, affective, and sociocultural interaction. Consistent with Vygotskian social constructivism, literacy learning within the READI Model is socially mediated through interaction and scaffolding (Davidson, 2010). This theoretical alignment explains the pronounced gains in Reading Fluency and Reading Comprehension, as decoding skills were embedded within meaningful and collaborative literacy experiences. The affective dimension observed in this study also aligns with prior research emphasizing the role of emotional engagement and intrinsic motivation in reading success (Marinak et al., 2010; Wigfield et al., 2008).

In terms of novelty, the READI Model differs from established approaches such as CORI, LETRS, synthetic phonics models, and Reading Recovery by integrating their core strengths within a single framework. Rather than prioritizing one dominant dimension, READI balances systematic phonological instruction with motivational and sociocultural components, positioning it as a holistic alternative to fragmented early literacy interventions.

Nevertheless, the model's effectiveness is influenced by external factors, including teacher expertise, availability of instructional resources, and varying levels of parental support. Although robust across contexts, gaps between ideal implementation and classroom realities—particularly in resource-limited settings—highlight the need for sustained teacher professional development and institutional support. Qualitative findings, while triangulated, may also be subject to self-report bias, warranting cautious interpretation.

Regarding sustainability and transferability, the READI Model shows promise due to its reliance on pedagogical adaptability rather than high-cost resources. However, its long-term impact on sustained reading habits requires longitudinal investigation. The model's alignment with multiliteracies pedagogy (Guzmán-Simón et al., 2018) and socially grounded literacy instruction (Prinsloo & Krause-Alzaidi, 2022; Skerrett, 2020) suggests strong potential for adaptation beyond

Indonesia, particularly in education systems facing early literacy challenges and learning poverty. Overall, the READI Model emerges as an evidence-based and integrative pedagogical innovation that effectively strengthens foundational reading skills through the synergy of cognitive structure, emotional engagement, and sociocultural support, offering both local relevance and global applicability.

6. Conclusion

This study concludes that the READI Model (Reading Engagement and Development for Initial Literacy) is an effective and inclusive pedagogical framework for strengthening foundational reading skills among primary school students, as evidenced by statistically significant improvements across four core indicators—Phonemic Awareness, Letter-Sound Knowledge, Reading Fluency, and Reading Comprehension. The quantitative findings, reflected in a high average N-Gain (0.72) and consistent effects across urban, semi-urban, and rural contexts, demonstrate that the model functions reliably across diverse learning environments. Qualitative evidence further elucidates *why* these gains occurred, revealing that teacher adaptability, sustained student engagement, and school-family collaboration operates as interrelated mechanisms that reinforce literacy development.

From a theoretical perspective, the READI Model extends existing engagement and comprehension theories by integrating cognitive processing, affective motivation, and sociocultural participation into a single, coherent early literacy framework. This integration addresses limitations of fragmented literacy models and contributes to the advancement of holistic literacy theory. At the policy level, the findings suggest that READI has strong potential to inform early-grade literacy interventions and learning poverty reduction strategies, particularly through its emphasis on instructional flexibility and home-school partnerships.

Although this study was conducted within the Indonesian primary education context, the model's design principles and outcomes indicate broader relevance for international settings facing similar foundational literacy challenges. Nevertheless, issues related to scalability, teacher capacity, and resource availability require careful consideration. Future research should examine the long-term sustainability of READI through longitudinal and cross-national studies to further validate its transferability and systemic impact.

7. Conflict of Interest

The authors declare no conflict of interest in relation to the publication of this article.

8. Acknowledgments

The authors confirm that no artificial intelligence (AI) tools were used in the writing, analysis, or interpretation of this manuscript. Grammarly was used solely for checking language clarity and grammatical accuracy. All research content, scholarly arguments, data analysis, and conclusions are entirely the authors' original work and intellectual contributions.

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