

From Struggling to Accelerated Readers: A Pre-Post Evaluation of School-Based Reading Intervention Effectiveness Among Grade 4 Filipino Students

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The authors declare that no funding was received for this work.

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Received: 08-June-2025

Accepted: 16-June-2025

Published: 23-June-2025

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This article is published by **MSI Publishers** in **MSI Journal of Multidisciplinary Research (MSIJMR)**

ISSN 3049-0669 (Online)

Volume: 2, Issue: 6 (June-2025)

ABSTRACT: Approximately one in five Filipino elementary students experience significant reading difficulties, necessitating effective intervention strategies. Purpose: This study evaluated a school-based reading program's effectiveness in improving fluency and comprehension among Grade 4 struggling readers. Methods: A quantitative pre-post design involved 24 Grade 4 students (13 males, 11 females) identified as struggling readers through Phil-IRI assessment at Palanan Elementary School, Makati City (2023-2024). Assessments included Dolch's Basic Sight Words for word recognition and comprehension tests measuring four levels of understanding. Results: The intervention achieved remarkable success. Word pronunciation accuracy improved from 12.5% to 100% of students at independent level. Reading speed dramatically increased, with 75% achieving fast reading levels (140+ wpm) versus 4.17% initially. Comprehension levels transformed completely: 58.33% reached independent level and 41.67% instructional level, compared to 100% at frustration level pre-intervention. Most significantly, all 24 struggling readers became accelerated readers, surpassing the program's 80% target. Conclusions: The school-based reading program

demonstrated exceptional effectiveness in addressing literacy challenges among Filipino elementary students. Implications: Results support implementing systematic, individualized reading interventions with proper teacher training to enhance literacy outcomes in Philippine elementary education.

Keywords: *Reading Fluency, Comprehension, School-based, Reading Program, Intervention*

Introduction

It is common knowledge that the ability to read and write indicates education. Reading is also widely acknowledged as crucial (Day, 2020). Part in the development of a person's complete being. It is said that Reading trains the intellect and provides access to a more profound understanding of reality.

Reading fluency and comprehension serve as fundamental determinants of children's future academic and professional success (De Vera and Casingal, 2024). Research reveals that approximately 20% of students encounter substantial challenges in reading acquisition, underscoring the critical need for targeted interventions. Early implementation of remedial reading programs in elementary education is crucial, as both fluency and comprehension skills developed during this developmental period significantly influence the trajectory of literacy difficulties (Casingal et al., 2025). Furthermore, gender-based disparities in reading performance have been documented, with male students demonstrating greater susceptibility to reading comprehension challenges compared to their female counterparts (Linnakylä et al., 2004). These findings emphasize the importance of implementing comprehensive remedial reading interventions that address the specific needs of at-risk learners, particularly male students who may require additional support to achieve reading proficiency.

Reading serves as a fundamental practice through which students construct knowledge and cultivate essential academic competencies (Olivar et al., 2014). Recognizing the critical role of literacy within the K to 12 Basic Education framework, the Department of Education (DepEd) established the "Every Child A Reader Program" (ECARP) through DepEd Memorandum No. 402, s. 2004 and

Administrative Order No. 302. This comprehensive initiative aims to equip public elementary students with systematic literacy instruction, fostering their development as autonomous readers and writers. Central to this program is the Philippine Informal Reading Inventory (Phil-IRI), a diagnostic instrument designed to enable teachers to systematically assess and document student reading performance within classroom settings. Effective literacy instruction requires teachers to possess detailed understanding of their students' reading proficiency levels and skill development to design and implement differentiated pedagogical approaches. This assessment-driven methodology exemplifies the principles of learner-centered, responsive, and culturally appropriate education.

Program evaluation data reveals promising outcomes (Magaso, 2021), with documented improvements in reading achievement across Philippine elementary schools. Research by Telesman et al. (2019) confirms that program participants exhibited substantial advances in both reading fluency and comprehension. These positive results underscore the critical importance of implementing coordinated interventions that integrate targeted instruction, comprehensive teacher professional development, and systematic assessment protocols to advance student literacy achievement.

To construct a practical plan for teaching reading skills to public school students, their current level of reading proficiency is evaluated. Philippine Informal Reading Inventory (Phil-IRI) is one of the assessment instruments used. It assesses students' reading proficiency through word recognition and reading comprehension in English and Filipino (Casingal, 2022). The Phil-IRI constitutes a mandatory DepEd assessment protocol administered biannually at the commencement and conclusion of each academic year. This comprehensive evaluation tool measures students' proficiency across multiple literacy domains, including oral reading, silent reading, and auditory comprehension in both English and Filipino languages (Pado et al., 2018). Despite these systematic assessment efforts, reading comprehension remains a pervasive challenge within the Philippine public education system. Statistical evidence indicates that approximately 20% of students experience substantial literacy

deficits (Therrien, 2004), highlighting the persistent gap between assessment implementation and achievement outcomes.

Mahapatra (2015) conceptualizes reading as a complex cognitive process wherein students systematically extract textual cues and synthesize them to construct meaningful understanding. As learners progress through their educational journey, they develop increasingly sophisticated analytical capabilities to evaluate diverse written content. However, when these fundamental skills remain underdeveloped, targeted remedial interventions become essential to strengthen reading fluency and comprehension during critical developmental periods (Casingal, 2022). Research consistently demonstrates that early intervention significantly influences the trajectory of literacy difficulties.

The Phil-IRI framework categorizes students into four distinct proficiency levels: nonreader, frustration, instructional, and independent. Students functioning at the frustration level often exhibit reading avoidance behaviors, while those at the instructional level require guided support to engage with texts effectively. Conversely, independent-level readers demonstrate autonomous reading capabilities without external assistance.

Gillaco's (2014) seminal research established the Phil-IRI as a comprehensive diagnostic tool for identifying students' literacy strengths and areas for improvement. Her investigation revealed that effective reading instruction requires educators to facilitate student awareness of their current achievement levels and specific skill gaps. Enhanced metacognitive awareness among learners directly correlates with improved instructional effectiveness. Furthermore, her findings advocate for systematic, longitudinal assessment protocols implemented at regular intervals throughout the academic year to monitor reading development and skill acquisition. This structured approach enables precise tracking of student progress and informs the design of individualized intervention strategies for learners experiencing literacy challenges.

According to Pourhosein Gilakjani & Sabouri (2016), every Reading begins with word recognition. In the early years of a child's development, letter-sound

recognition and letter merging help them produce new words. As they mature and begin to spell longer and more complex words, they incorporate the concepts of root words and affixes, i.e., prefixes and suffixes, into their spelling. Decoding skills are typically emphasized when a child is first taught to read. This is the process of translating written letters and words into language. Students receive systematic phonics instruction that follows a developmental progression from mastering individual letter-sound correspondences to blending these sounds into complete words. Beginning-level texts strategically incorporate extensive repetition of foundational elements to reinforce practice and facilitate gradual vocabulary acquisition. During this critical phase, learners essentially master the underlying linguistic "code" that governs written language systems. Consequently, decoding proficiency serves as the cornerstone of reading achievement. At this developmental stage, both reading accuracy and fluency emerge as paramount skills. While students with well-developed decoding abilities demonstrate rapid and precise word recognition, this technical proficiency does not automatically translate to advanced reading comprehension capabilities.

During early literacy development, children master letter-sound recognition and phonemic blending to construct words systematically. As learners mature and encounter increasingly complex vocabulary, they integrate morphological knowledge including root words, prefixes, and suffixes to decode sophisticated expressions. Decoding instruction constitutes the cornerstone of early reading pedagogy, focusing on the conversion of written symbols into spoken language. However, some students experience significant reading difficulties, manifesting as poor readers or nonreaders who require immediate educational intervention through specialized remedial and literacy support programs. Theeb and Jarrar (2014) define remedial instruction as a targeted educational approach designed to prevent, diagnose, and address learning obstacles that hinder anticipated academic progress. Research emphasizes that such interventions are not supplementary but essential curricular components (Rai & Penjor, 2020).

Given reading's fundamental role as the gateway to knowledge acquisition, systematic evaluation of individual student literacy proficiency remains paramount

(Pader, 2020). Reading serves as both a knowledge-gathering mechanism and a foundation for constructing new understanding. Reading comprehension represents a dynamic process of meaning construction and reconstruction from textual materials. Contemporary comprehension theory recognizes that understanding emerges through the complex interaction of multiple linguistic elements—semantic (word meaning), syntactic (sentence structure), and phonological (sound-symbol relationships)—combined with readers' prior knowledge and experiential background.

The COVID-19 pandemic introduced unprecedented challenges for Philippine public educators, particularly regarding the authenticity of student assessment data collected during remote learning. While face-to-face instruction typically ensures reliable evaluation outcomes, pandemic-imposed restrictions significantly complicated accurate performance measurement. Onyema (2020) documented the dramatic educational transformation from traditional classroom instruction to digital platforms. Although vaccination programs have been implemented globally to combat infection rates, and case numbers have subsequently declined with improved worldwide conditions (Machado et al., 2021), the assessment challenges highlighted persistent gaps in remote learning evaluation methods.

This investigation employed a comprehensive two-component assessment framework to evaluate reading proficiency. Word recognition was measured through participants' accuracy in pronunciation and fluency in reading Dolch's essential sight words. Pronunciation assessment focused on precise letter-sound correspondence and phonemic integration, while reading speed evaluated the temporal efficiency of oral sight word recognition. Reading comprehension was systematically assessed using a four-tiered hierarchical framework adapted from Villanueva and Delos Santos (2008): literal comprehension (Test I), interpretive comprehension (Test II), critical analysis (Test III), and application and creation levels (Test IV). Student performance across these four comprehension domains was quantified and synthesized to determine overall reading comprehension proficiency.

Following the comprehensive assessment of participants' word recognition and reading comprehension capabilities, researchers designed individualized reading intervention programs tailored to address specific student learning needs. The

diagnostic data obtained through this evaluation process informed the development of evidence-based, school-centered curriculum modifications and targeted reading programs aimed at enhancing overall academic achievement. Furthermore, these assessment outcomes were strategically integrated into the institution's comprehensive school improvement planning process, ensuring that literacy interventions aligned with broader educational objectives and institutional development goals.

Jamshidifarsani et al. (2019) state that individualized reading intervention programs are crucial in addressing student literacy difficulties. The purpose of these programs is to provide specialized assistance to students who struggle with reading fluency and comprehension. Typically, they entail instruction tailored to each student's individual needs. In individualized intervention programs, phonics instruction that is explicit and systematic is an effective strategy. By demonstrating the relationships between sounds and letters, phonics instruction helps students develop solid foundational skills. It emphasizes letter-sound correspondence, decoding techniques, and word analysis abilities. Students become proficient readers who can effortlessly decode unfamiliar words by mastering these fundamental skills. Guided Reading is another strategy where students work in small groups with a teacher or instructional assistant (Chesterton, 2008). During guided reading sessions, students read texts at their instructional level and receive immediate feedback and support. The instructor instructs explicitly on reading strategies, poses comprehension questions, and facilitates students in navigating complex texts. In a supportive and interactive environment, these sessions help students develop their reading fluency, comprehension, and critical thinking abilities.

The reading intervention program established two primary objectives: implementing a comprehensive school-based remedial program for struggling readers and achieving a target outcome of advancing 80% of the 24 participating students from frustration level to instructional reading proficiency. This investigation developed detailed reading profiles for fourth-grade students at Palanan Elementary School through systematic assessment of multiple literacy components. Word recognition evaluation encompassed pronunciation accuracy, reading fluency rates, and error

pattern analysis, while reading comprehension assessment measured silent reading speed alongside performance across four cognitive levels: literal understanding, interpretive analysis, critical evaluation, and application with creative synthesis.

The theoretical framework outlined above provided the conceptual foundation for this research investigation. The study pursued dual research objectives: first, to measure improvements in reading fluency and comprehension among elementary students following targeted intervention; and second, to evaluate the overall effectiveness and efficiency of the implemented school-based literacy program in achieving desired learning outcomes.

METHODS

Research Design

The researchers utilized a quantitative descriptive research design to systematically investigate the phenomena under study. According to Palar-Calmorin and Calmorin (2007), this methodological approach focuses on examining and documenting current conditions through comprehensive description, comparative analysis, and interpretive evaluation of existing circumstances. This research design enabled the systematic examination of participants' reading profiles, specifically analyzing their word recognition capabilities and reading comprehension levels, while simultaneously evaluating the effectiveness of the tailored school-based reading intervention program in addressing students' identified literacy needs.

Research Setting

This investigation was conducted at Palanan Elementary School, a public educational institution located in District VI of the Schools Division of Makati City, National Capital Region (NCR), Philippines. The selection of this research site was based on the researchers' institutional affiliation and accessibility to the target population.

Participants

The study employed purposive sampling to select 24 Grade 4 students (n=24) who were identified as struggling readers through initial Phil-IRI assessment screening.

The participant demographics comprised 13 males (54.2%) and 11 females (45.8%). Prior to data collection, comprehensive informed consent procedures were implemented, with all parents or legal guardians providing written authorization after receiving detailed explanations of the research methodology, data collection protocols, and study objectives. Ethical considerations were strictly observed throughout the participant recruitment and selection process.

Table 1 below shows the demographic characteristics of the participants.

Table 1. *Demographic characteristics of the participants*

| Age | Male | Female | Total |
|--------------|-------------|---------------|--------------|
| 9 | 8 | 8 | 16 |
| 10 | 5 | 3 | 8 |
| Total | | | 24 |

Participant identification and recruitment were facilitated through collaboration with Grade 4 class advisers and systematic review of student records via the Learner Information System (LIS) enrollment database. This multi-step process ensured comprehensive identification of eligible students meeting the study's inclusion criteria. The research investigation was conducted throughout the 2023-2024 academic year, allowing for adequate implementation of the reading intervention program and comprehensive assessment of student progress over an extended period.

Research Instrumentation

The study employed a comprehensive two-part assessment battery designed to evaluate distinct aspects of reading proficiency. The first component measured word recognition capabilities through systematic evaluation of pronunciation accuracy, error pattern analysis, and reading fluency rates. The second component assessed reading comprehension across multiple cognitive levels.

Word Recognition Assessment

Word recognition was evaluated using Dolch's Basic Sight Word List, administered with a structured response checklist to document student performance systematically.

This standardized instrument enabled precise measurement of students' ability to recognize, pronounce, and process fundamental vocabulary elements essential for reading fluency.

Reading Comprehension Assessment

Reading comprehension was measured through a standardized three-page assessment protocol featuring a 375-word reading passage for silent reading, followed by a comprehensive evaluation instrument. This assessment systematically examined student performance across four hierarchical comprehension levels: literal understanding, interpretive analysis, critical evaluation, and application with creative synthesis. The multi-tiered approach provided detailed insights into students' cognitive processing capabilities and depth of textual understanding.

Procedure

Before conducting the study, the researchers briefed the seven Grade IV advisors on the procedure and schedule for data collection. The researchers created an action plan, a final budget of work in English IV (DBOW), teacher and student schedules, proposal letters, work schedules, and parental consent forms that were signed by the school principal, the teacher adviser, and the parent or legal guardian of each student who participated. Each child was exposed to Dolch's list of actual sight words for word recognition and Phil-IRI. The responses of the students were recorded on a checklist. The checklist consists of word pronunciation, errors, and aural reading speed.

The teacher had the student read the passage in silence to evaluate the student's reading comprehension. The teacher was responsible for timing the silent Reading and assisting students in responding to the quiz-like comprehension test.

Data Analysis Procedures

Given the study's sample size of 24 participants, the researchers employed the following statistical analysis methods to examine reading performance data:

Descriptive Statistical Measures

1. Frequency Distribution Analysis: Frequency tables were constructed to illustrate the distribution of participants' scores across word recognition and reading comprehension assessments, providing a comprehensive overview of performance patterns within the sample.
2. Central Tendency Calculation: Mean scores were computed to summarize and characterize participants' overall reading proficiency levels, enabling systematic comparison of performance across different assessment domains.
3. Performance Calculation Formulas: The following mathematical formulas were applied to quantify specific reading competencies:

Word Recognition Calculation

For word recognition assessment, the following formula was utilized:

$$WR = \frac{\text{No. of miscues}}{\text{No. of words}} \times 100$$

Word Recognition Error Analysis

The word recognition accuracy rate was calculated by determining the percentage of miscues relative to the total number of essential sight words presented. Miscues were operationally defined as any mispronounced words during the assessment process. This calculation enabled researchers to quantify the number of correctly pronounced words and establish overall word recognition proficiency levels for each participant.

Reading Speed Calculations

a. Oral Reading Speed (RS) Formula: Applied to oral reading assessment using Dolch's Basic Sight Words:

$$RS = \frac{\text{No. of Words in the passage (220 words)}}{\text{Reading Time (mins)}}$$

In silent Reading:

$$RS = \frac{\text{No. of words in the passage (375 words)}}{\text{Reading time (mins)}}$$

Reading speed was calculated by dividing the total word count by the time required for completion. Two distinct measurements were employed: oral reading speed utilized Dolch's Basic Sight Words list containing 220 words, while silent reading speed was measured using a reading passage of 375 words. This computational approach enabled precise quantification of individual participants' reading fluency rates across both oral and silent reading modalities, providing comprehensive assessment of reading speed proficiency.

Table 2. The criteria for reading speed. (*Adapted from Phil-IRI*)

| Grade Level | Fast | Average | Slow |
|-------------|------------|----------------|------------|
| I | 70-above | 31-69 | 30-below |
| II | 93 | 78 | 24 |
| III | 120 | 91-119 | 90 |
| IV | 140 | 111-139 | 110 |
| V | 170 | 141-169 | 140 |
| VI | 190 | 161 | 160 |

Reading Speed Classification Standards

Table 2 provided the standardized criteria for evaluating Grade IV students' reading speed performance. According to these established benchmarks, students achieving 140 or more words per minute (WPM) were classified as fast readers, those reading between 111-139 WPM were categorized as average readers, and students reading 110 WPM or below were designated as slow readers.

Reading Comprehension Calculation

c. Reading Comprehension (RC) Formula: Reading comprehension scores were computed using the following mathematical formula:

$$RC = \frac{\text{Total correct answer}}{\text{Total number of question}} \times 100$$

Reading Comprehension Scoring Methodology

Reading comprehension performance was calculated as the percentage of correct responses relative to the total number of assessment items. This computation enabled researchers to determine participants' comprehension proficiency levels across four distinct cognitive domains: literal understanding (Test I), interpretive analysis (Test II), critical analysis (Test III), and application with creation (Test IV). The multi-tiered assessment approach provided comprehensive evaluation of students' depth of textual understanding and cognitive processing capabilities.

Performance Interpretation Framework

The interpretation of individual reading profiles was based on standardized criteria established by the Philippine Informal Reading Inventory (Phil-IRI). The following tables provide the diagnostic framework for categorizing student performance across key literacy components.

Table 3. Assessment Criteria for Word Recognition and Reading Comprehension (*Adapted from Phil-IRI*)

| | Word Recognition | Comprehension |
|--------------------|-------------------------|----------------------|
| Independent | 97-100 | 80-100 |
| Instruction | 90-96 | 59-79 |
| Frustration | 89-Below | 58-Below |

Table 3 serves as the foundational framework for interpreting student performance scores across two primary assessment domains: word recognition through oral reading evaluation and reading comprehension through silent reading assessment. Following initial score interpretation using these established criteria, researchers subsequently consulted Table 4 to determine participants' overall reading proficiency levels based on their combined performance across both literacy components.

Table 4. The criteria for oral Reading. (*Adapted from Phil-IRI*)

| Word Recognition | Comprehension | Reading Level |
|-------------------------|----------------------|----------------------|
| Independent | Independent | Independent |
| Independent | Instructional | Instructional |
| Independent | Frustration | Frustration |

| | | |
|---------------|---------------|---------------|
| Instructional | Independent | Independent |
| Instructional | Instructional | Instructional |
| Instructional | Frustration | Frustration |
| Frustration | Independent | Frustration |
| Frustration | Instructional | Frustration |
| Frustration | Frustration | Frustration |

The overall reading level classification follows a systematic matrix approach based on participants' combined performance in word recognition and comprehension assessments. When a student demonstrates independent proficiency in both word recognition and comprehension domains, their overall reading level is classified as independent. Conversely, when a student achieves independent performance in word recognition but instructional level in comprehension, their composite reading level is categorized as instructional. This hierarchical classification system continues systematically across all possible performance combinations, ensuring comprehensive and standardized evaluation of student reading proficiency.

Table 5. The Criteria for Silent Reading. (*Adapted from Phil-IRI*)

| Word Recognition | Comprehension | Reading Level |
|-------------------------|----------------------|----------------------|
| Fast | Independent | Independent |
| Fast | Instructional | Instructional |
| Fast | Frustration | Frustration |
| Average | Independent | Independent |
| Average | Instructional | Instructional |
| Average | Frustration | Frustration |
| Slow | Independent | Frustration |
| Slow | Instructional | Frustration |
| Slow | Frustration | Frustration |

Silent Reading Classification Framework

For silent reading assessment, participants' overall reading levels were determined through a dual-component evaluation system. This classification integrated reading speed metrics, calculated by dividing the total words read by completion time, with

reading comprehension performance based on standardized test scores. The composite evaluation provided a comprehensive measure of silent reading proficiency.

Silent Reading Level Determination

The classification matrix operates as follows: when a student demonstrates **fast** reading speed combined with **independent** comprehension performance, their overall silent reading level is classified as **independent**. Similarly, when a student achieves **fast** reading speed but performs at the **instructional** level in comprehension, their composite silent reading classification becomes **instructional**. This systematic approach ensures consistent evaluation across all speed and comprehension performance combinations.

RESULTS AND DISCUSSION

Comparing the average results of fourth-grade students' pre-and post-tests of their reading fluency and comprehension revealed a significant difference between the two assessments. This result demonstrates the efficacy of the reading program and the enhancement of students' reading fluency and comprehension.

Table 6. Word Recognition Level of Participants in terms of correct pronunciation.

| Words recognized (in%) | No. of Participants | Percent (%) | Word Recognition Level |
|-----------------------------------|---------------------|-------------|---------------------------|
| <i>Before the reading program</i> | | | |
| 0-89 | 16 | 66.67% | Frustration |
| 90-96 | 5 | 20.83% | Frustration |
| 97-100 | 3 | 12.5% | Frustration |
| <i>After the reading program</i> | | | |
| 0-89 | 0 | 0 | |
| 90-96 | 2 | 0 | |
| 97-100 | 24 | 100 | Independent |
| TOTAL | 24 | 100 | |

Regarding pronunciation, most of them fell under the frustration level before the reading program started. 66.67% of the participants can pronounce 89 words or less. Five (20.83%) can pronounce 90-96 words correctly, and three (12.5%) can correctly pronounce 97-100. However, after almost a school year, 100% of the participants can pronounce the words correctly.

Table 7. The participants' reading speed in using Dolch's essential sight words.

| Reading Speed wpm | No. of Participants | Percent (%) | SPEED Level |
|--|----------------------------|--------------------|--------------------|
| <i>Before the reading program</i> | | | |
| 0-110 | 21 | 87.5% | Slow |
| 111-139 | 2 | 8.33% | Average |
| 140-above | 1 | 4.17% | Fast |
| <i>After the reading program</i> | | | |
| 0-110 | 0 | 0 | Slow |
| 111-139 | 6 | 25% | Average |
| 140-above | 18 | 75% | Fast |
| TOTAL | 24 | 100 | |

Reading Speed Performance: Pre- and Post-Intervention Analysis

Pre-Intervention Reading Speed Distribution

Prior to program implementation, reading speed assessment revealed significant performance disparities among participants. Only one student (4.17%) demonstrated fast reading proficiency, achieving 140 or more words per minute. Two participants (8.33%) performed at average speed levels, reading between 111-139 words per minute. The majority of students, 21 participants (87.5%), exhibited slow reading speeds, performing at or below 110 words per minute.

Post-Intervention Reading Speed Outcomes

Following completion of the reading intervention program, substantial improvements in reading speed were documented across the participant cohort. Six students (25%) advanced to average reading speed levels (111-139 WPM), while a remarkable 18 participants (75%) achieved fast reading proficiency (140+ WPM). Notably, no

students remained in the slow reading category, indicating comprehensive program effectiveness in enhancing reading fluency across all participants.

Table 8. The common reading miscues of the respondents

| No. of miscues | No. of substitution | No. of Mispronunciation | No. of both substitution and Mispronunciation | No. of respondents who committed miscues | Percent (%) |
|-----------------------------------|---------------------|-------------------------|---|--|-------------|
| <i>Before the reading program</i> | | | | | |
| 145-above | 7 | 6 | 13 | 0 | 0 |
| 100-144 | 3 | 6 | 9 | 2 | 8.33 |
| 50-99 | 1 | 2 | 3 | 1 | 4.17 |
| 10-49 | 6 | 5 | 11 | 8 | 33.33 |
| 1-9 | 7 | 5 | 12 | 12 | 50 |
| 0 | 0 | 0 | 0 | 1 | 4.17 |
| TOTAL | 24 | 24 | 48 | 24 | 100 |
| <i>After the reading program</i> | | | | | |
| 145-above | 3 | 1 | 4 | 0 | 0 |
| 100-144 | 1 | 2 | 3 | 1 | 4.17 |
| 50-99 | 1 | 1 | 2 | 0 | 0 |
| 10-49 | 8 | 12 | 20 | 4 | 16.67 |
| 1-9 | 12 | 8 | 20 | 6 | 25 |
| 0 | 0 | 0 | 0 | 13 | 54.16 |
| TOTAL | 24 | 24 | 48 | 24 | 100 |

Error Analysis: Pre- and Post-Intervention Comparison

Both pre- and post-intervention assessments revealed the presence of reading errors across all participants. However, the data demonstrated a significant reduction in error frequency, including substantial decreases in word substitutions and mispronunciations following program completion.

Post-Intervention Error Patterns

Analysis of the 220-word assessment revealed marked improvement in word recognition accuracy. The majority of participants achieved high proficiency levels, correctly pronouncing 210 words with error rates ranging from 1 to 10 miscues per assessment. This performance pattern indicates that most students developed substantial competency in recognizing and accurately pronouncing Dolch's basic sight words, demonstrating the intervention's effectiveness in enhancing fundamental word recognition skills.

Table 9. Level of reading comprehension of the participants in literal comprehension

| Score | Grade (in%) | Frequency | Relative Frequency | Reading Comprehension Level |
|-----------------------------------|-------------|-----------|--------------------|-----------------------------|
| <i>Before the reading program</i> | | | | |
| 0 | 0 | 2 | 8.33 | Frustration |
| 1 | 20 | 17 | 70.89 | Frustration |
| 2 | 40 | 5 | 20.83 | Frustration |
| 3 | 60 | 0 | 0 | |
| 4 | 80 | 0 | 0 | |
| 5 | 100 | 0 | 0 | |
| TOTAL | | 24 | 100 | |
| <i>After the reading program</i> | | | | |
| 0 | 0 | 0 | 0 | |
| 1 | 20 | 0 | 0 | |
| 2 | 40 | 0 | 0 | |
| 3 | 60 | 0 | 0 | |
| 4 | 80 | 10 | 41.67 | Instructional |
| 5 | 100 | 14 | 58.33 | Independent |
| TOTAL | | 24 | 100 | |

Before the reading program, the participants' scores ranged from 0 to 2 out of 5 points, leaving them under the *frustration category*. However, after completing the reading program, most participants' scores ranged between 4-5, indicating improved

reading comprehension from frustration to *instructional and independent categories*. There is a substantial improvement in their reading comprehension.

CONCLUSIONS

Study Outcomes and Program Effectiveness

The research findings demonstrated substantial improvements in reading fluency and comprehension across all 24 Grade 4 participants. These results align with Pado et al.'s (2018) assertion that independent reading proficiency represents the optimal literacy achievement level, characterized by sufficient background knowledge enabling rapid text access with minimal errors. Most significantly, the school-based reading intervention achieved complete success by transforming all 24 struggling readers into accelerated learners, surpassing the program's primary objective and demonstrating exceptional intervention effectiveness.

Implications for Educational Practice

The study's outcomes underscore the critical importance of systematic assessment protocols in literacy instruction. Educators must implement Phil-IRI and Dolch assessments with methodological rigor to ensure accurate diagnostic results and targeted intervention strategies. Furthermore, reading and remedial programs require systematic implementation with explicit focus on addressing individual students' specific reading proficiency levels and identified learning difficulties. This targeted approach ensures that interventions align with students' developmental needs and maximize educational outcomes.

Study Limitations

This investigation examined reading fluency and comprehension among elementary students while evaluating the effectiveness of a targeted school-based reading intervention program. Several methodological limitations must be acknowledged that may have influenced the study's outcomes and generalizability.

Assessment and Implementation Constraints

The research design incorporated multiple assessment variables, including pre- and post-intervention Phil-IRI evaluations, Dolch sight word assessments, and remedial instruction components, which may have introduced complexity in isolating specific intervention effects. Additionally, implementation challenges emerged related to teacher participation consistency in remedial instruction sessions and intermittent student absenteeism during critical intervention periods, potentially affecting program fidelity and participant exposure to the complete intervention protocol.

Scope and Generalizability Limitations

A significant limitation concerns the study's restricted scope, as the intervention was implemented exclusively within a single educational institution. This single-site design limits the generalizability of findings to broader educational contexts and diverse student populations, necessitating cautious interpretation of results when considering program replication across different school environments and demographic settings.

Research Recommendations

Based on comprehensive data analysis and study conclusions, the researchers propose the following evidence-based recommendations for enhancing reading instruction and assessment practices.

Assessment Implementation Protocols

Phil-IRI and Dolch assessments should be administered systematically through structured, sequential protocols to ensure diagnostic accuracy and reliability. Educators require comprehensive professional development training in standardized assessment administration procedures to maximize the validity of reading evaluations and ensure consistent implementation across instructional contexts.

Instructional Design and Curriculum Enhancement

Reading remediation and literacy programs must be designed using student-centered approaches that address individual learners' specific proficiency levels and learning

requirements. Students should be provided with diverse, high-quality instructional materials including age-appropriate literature, informational texts, and varied reading selections to support comprehensive literacy development.

Pedagogical Strategies and Methodology

Implementation of varied instructional methodologies and evidence-based reading strategies is essential for improving student performance and fostering independent reading confidence. Students require exposure to multiple instructional techniques, strategic interventions, and structured literacy activities designed to achieve optimal reading proficiency aligned with Department of Education standards.

Program Evaluation and Continuous Improvement

The reading profiles generated through this research should serve as diagnostic benchmarks for school stakeholders to monitor and evaluate ongoing student reading performance. Continued implementation and refinement of the reading intervention program is strongly recommended to sustain and further enhance participants' literacy achievements.

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