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READING REMEDIATION TOOLS AND TECHNIQUES FOR STRUGGLING READERS IN SELECTED ELEMENTARY SCHOOLS IN GOA DISTRICT, CAMARINES SUR, PHILIPPINES

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Abstract
This study developed and validated reading remediation tools and techniques specifically designed for Grade 3 struggling readers. Using the 4D Model of Thiagarajan, Semmel, and Semmel (1974), the research employed a developmental design complemented by qualitative and quantitative approaches. Diagnostic assessments and teacher feedback identified common reading difficulties in decoding, fluency, and comprehension, which informed the creation of four nature-themed stories—*Rain, Storm, Earthquake,* and *Fire*. The materials integrated phonics, vocabulary, comprehension activities, and values education. Expert validation by literacy specialists, language educators, and teachers assessed content quality, instructional design, readability, engagement, and usability. Descriptive and thematic analyses showed a high overall mean of 4.73 (Highly Acceptable), confirming the tool's pedagogical soundness, contextual relevance, and practical usability. The Reading Quest: Read Nature Stories, Grow Good Values was found effective for reading intervention, with recommendations for wider pilot implementation and ongoing refinement.

Keywords: Reading, Reading Remediation, Reading Quest, Struggling Readers, Literacy Intervention

Introduction

Reading was foundational to learning. The ability to decode text, fluently read, and comprehend underpinned success across the curriculum. When children failed to develop adequate reading skills in the early grades, deficits compounded; they struggled to learn subject matter, lagged behind peers, and were at increased risk of broader academic underachievement. The review of studies on reading interventions showed that targeted reading remediation, especially programs that addressed phonics, fluency, and comprehension strategies, produced meaningful gains for struggling readers, demonstrating that well-designed remediation could reverse or reduce those negative trajectories (Akyol & Boyacı-Altınay, 2019; McArthur et al., 2020).

In the Philippine context, many schools continued to report significant proportions of learners who performed below expected reading levels. The Department of Education and local planning documents emphasized the regular use of screening tools such as the PHIL-IRI and other rapid literacy assessments to identify reading gaps and to plan remedial action, highlighting both the scale of the problem and the system's need for effective remediation materials and teacher supports. Locally developed, context-appropriate remediation had shown positive outcomes in Philippine settings where materials were adapted to learners' language, culture, and the realities of classroom practice (Burgos & Matalines, 2025). Beyond academic outcomes, poor reading was associated with lower academic self-concept, increased anxiety around schoolwork, and reduced motivation and engagement. Systematic reviews and meta-analyses indicated that many poor readers reported lower academic self-esteem and that these emotional and motivational consequences perpetuated avoidance of reading and school disengagement, outcomes that remediation programs therefore aimed to address alongside decoding and comprehension skills (McArthur et al., 2020).

Despite evidence that remediation could help, two gaps persisted in many local settings. First, many existing remediation efforts were "one-size-fits-all," meaning generic materials or brief programs rather than being grounded in a careful analysis of the specific reading errors and skill breakdowns present in the local learner population. Examples included decoding errors, syllable-level difficulties, sight-word gaps, fluency, or comprehension strategy failures. Second, teachers frequently lacked ready access to localized, teacher-friendly remediation tools and clear protocols for diagnosing errors and delivering targeted instruction. Research on remedial reading highlighted the importance of error analysis as the foundation of effective interventions. Akyol and Boyacı-Altınay (2019), for example, emphasized that diagnostic assessment of students' reading errors provided valuable insights into the specific difficulties learners faced and guided the design of effective remediation tailored to their needs. This evidence underscored the necessity of developing interventions that were both individualized and systematic.

The study, *Development of Reading Remediation Tools and Techniques for Struggling Readers in Selected Elementary Schools in Goa District*, responded to this gap by conducting a comprehensive analysis of students' reading errors and by designing remediation tools and techniques directly targeted at the error profiles identified. Similarly, the developed remediation tools were evaluated to assess their effectiveness in local classrooms. Implementing these techniques produced evidence-based, context-relevant materials and practical guidance for teachers. The project's approach aligned with meta-analytic findings that interventions tailored to students' specific needs and that combined foundational-skills instruction with comprehension and fluency work tended to produce stronger outcomes (Akyol & Boyacı-Altınay, 2019; McArthur et al., 2020). Because reading difficulties had demonstrable academic and psychosocial costs and because evidence supported the efficacy of targeted remediation, there was a pressing need for remediation tools that were empirically grounded, locally contextualized, teacher-friendly, and accompanied by evidence of effectiveness. This study filled that need for Goa District, producing resources and evidence that improved reading proficiency and helped reduce the cycle of academic failure and disengagement among struggling readers.

Importantly, this initiative also aligned with the United Nations Sustainable Development Goals (SDGs), particularly SDG 4: Quality Education, which emphasized inclusive and equitable quality education and the promotion of lifelong learning opportunities for all. By addressing the reading difficulties of young learners and equipping teachers with effective, localized remediation tools, the study directly contributed to the global agenda of ensuring foundational literacy skills as a pathway toward improved educational outcomes and sustainable development.

Objectives

This study seeks to develop and evaluate effective reading remediation tools and techniques, grounded in a comprehensive analysis of reading errors, to enhance reading proficiency among struggling readers in selected elementary schools within the Goa District.

Specifically, this study aimed to:

1. Identify and categorize common reading errors among struggling readers in selected elementary schools in the Goa District.
2. Design and develop evidence-based reading remediation tools and techniques, specifically tailored to address the unique needs of struggling readers, based on the identified reading errors.
3. To implement pilot testing of the developed reading remediation tools in selected schools to evaluate the initial effectiveness in improving reading proficiency among struggling readers.
4. To collect and analyze feedback from pilot testing, and make necessary refinements based on data and feedback to enhance their effectiveness.

Methodology

Research Design: This study used a developmental research design complemented by qualitative methods to address the challenges faced by Grade 3 struggling readers. The developmental component focused on systematically designing, piloting, and refining reading remediation tools and techniques based on the identified reading errors of Grade 3 pupils in the study area. Meanwhile, the qualitative component emphasized collaboration with classroom teachers, literacy experts, and language educators, who provided professional and narrative feedback on the tool's content, design, and usability. The descriptive statistics, such as mean ratings, was also used to summarize evaluation results, making the interpretation of findings remained qualitative. These approaches employed allowed the study to capture both measurable indicators of acceptability and rich descriptive feedback, ensuring that the developed tool was pedagogically grounded, contextually responsive, and practically applicable.

Study Area : The study was conducted among Grade 3 pupils, categorized as full-refresher group, in one of the elementary schools in the Goa District, Goa, Camarines Sur, Philippines. The choice of Grade 3 learners as the study area was deliberate, as this stage is considered a critical transition period in literacy development. At this grade level, pupils are expected to have moved from "learning to read" toward "reading to learn," making reading proficiency essential for mastering content across subject areas. However, many learners in this age group continue to struggle with decoding, fluency, and comprehension, which significantly hampers their overall academic progress. Conducting the study within this setting provided an opportunity to identify specific reading challenges and to implement targeted remediation tools that directly addressed the needs of struggling readers. Furthermore, situating the research in a local elementary school within Goa District allowed for the development of remediation materials that were not only evidence-based but also contextually relevant to the linguistic, cultural, and instructional realities of the learners and teachers in the area.

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Sampling Design: This study involved the entire population of identified struggling Grade 3 readers to evaluate the effectiveness of the reading remediation tools and techniques.

Respondents of the Study : The respondents for this study include approximately 23 struggling readers, categorized as full-refresher group, and the selected teachers, educational experts, and school administrators from the Goa District located in Goa, Camarines Sur, Philippines.

Data Gathering Procedure

The data collection process for this study began by identifying all Grade 3 struggling readers in the study area, using existing records of the teachers. At the same time, teachers were interviewed to better understand the reading challenges these students faced. Based on the data collected, reading remediation tools were designed to address the specific needs of the students. Once developed, these tools were tested through pilot implementation, where teachers integrated them into their regular lessons. During this phase, researchers observed how the students responded to and engaged with the new materials. Feedback was also gathered from teachers and students through surveys and discussions to determine how well the tools worked and how they could be improved. Finally, all the data, including observations, and feedback, were analyzed to assess the effectiveness of the tools. Based on this analysis, the remediation tools were refined and reintroduced. This approach ensured that the reading tools were effective in addressing the needs of struggling readers and could be adapted based on real-world classroom experiences.

Data Analysis: The data analysis in this study was grounded in developmental and qualitative research designs complemented by quantitative approach focusing on refining the remediation tools based on continuous feedback. Teachers' assessments of pupils' reading errors, along with diagnostic records, formed the basis for categorizing common difficulties in decoding, fluency, and comprehension. These data were examined through content and thematic analysis, which allowed the identification of recurring error patterns and insights into learners' needs. Feedback gathered from teachers, students, and school administrators during the pilot implementation was analyzed thematically to extract key themes related to the effectiveness, usability, and cultural relevance of the developed tools. To support this interpretation, descriptive statistics, specifically mean scores for each evaluation criterion, were computed to summarize expert judgments on content quality, instructional design, readability, engagement, and practicality.

Results and Discussion

The developed material, *Reading Quest: Read Nature Stories, Grow Good Values,* serve as the reading remediation tool, while its techniques were represented by the systematic organization and instructional design embedded within the material. Specifically, the sequencing of lesson from simple to complex texts, the integration of phonics, fluency, and comprehension activities, and the inclusion of reflective and values-based components serve as the applied techniques that guided the remediation process. Thus the tool and the techniques were interdependent, this tool provided the medium for remediation, and its structured composition and activity flow embodied the instructional techniques that addressed the identified reading difficulties of the learners.

The findings focus on the outcomes of designing, developing, and validating the material which was created to address the identified reading difficulties among Grade 3 learners. The results highlight how the developed material effectively integrates evidence-based remediation strategies, such as phonics instruction, vocabulary development, fluency enhancement, and comprehension support, within contextualized and engaging learning content. The expert and teacher evaluations provided both quantitative and qualitative insights into the tool's pedagogical soundness, language appropriateness, and practical usability. These findings serve as the basis for determining the tool's instructional quality, effectiveness, and potential impact on learners' reading proficiency.

The presentation and interpretation of results in this section aim to establish how the developed reading remediation tool and techniques fulfills the study's objectives and contributes to improving literacy instruction among struggling readers.

Common Reading Errors among Struggling Readers

The analysis of the responses provided by the Grade 3 teacher from the Full Refresher Group revealed several recurring patterns of reading errors among struggling readers. These errors were systematically categorized into five major types such as phonological and decoding errors, syllabication and blending errors, substitution/omission/reversal errors, fluency and pacing errors, and comprehension-related errors. Table 1 below present summary of the common reading errors among the struggling Grade 3 readers with implication for remediation.

Table 1. Common Reading Errors Among Struggling Grade 3 Readers

Error Category	Description	Examples Observed	Implications for Remediation
Phonological and Decoding Errors	Difficulty in sound-symbol recognition and phonics application.	Mispronouncing /b/ as /d/, /p/ as /f/; inconsistent vowel sounds.	Strengthen phonics drills, phonemic awareness activities, and use of phonics charts.
Syllabication and Blending Errors	Struggles in blending sounds or dividing words into syllables.	Guessing words without decoding; skipping or omitting syllables.	Incorporate leveled readers with syllable-focused texts and guided oral reading exercises.
Substitution, Omission, and Reversal Errors	Incorrectly substituting, omitting, or reversing letters/words during reading.	Reading "was" as "saw"; replacing words with similar-looking ones.	Explicit practice with sight words, error correction drills, and visual tracking strategies.
Fluency and Pacing Errors	Slow, hesitant reading with lack of phrasing or rhythm.	Frequent pauses, monotone delivery, reading words in isolation.	Fluency-building strategies: repeated reading, choral reading, and timed oral reading practice.
Comprehension-Related Errors	Inability to grasp meaning, recall details, or infer from text.	Failure to retell passages; misunderstanding story sequences.	Use guided reading questions, story-mapping tools, and scaffolded comprehension strategies.

A significant proportion of learners exhibited phonological and decoding difficulties, particularly in the recognition and articulation of basic sound–symbol correspondences. Instances such as mispronouncing consonant sounds (/b/ and /d/, /p/ and /f/) and producing inconsistent vowel sounds highlighted a lack of mastery in phonics. This is consistent with the findings of Nkurunziza (2024), who emphasized that phonemic awareness and decoding skills form the foundation of reading proficiency. The persistence of these errors suggests that remedial efforts must focus on reinforcing phonics instruction through structured drills, phonics charts, and multisensory learning activities. In addition, syllabication and blending errors were common, with pupils often skipping syllables or guessing words without proper decoding. This indicates an incomplete grasp of orthographic and phonological integration, which is critical for fluent reading. Addressing this gap requires leveled readers that progressively introduce syllable patterns, supported by guided oral reading exercises that encourage sound blending and word recognition.

Errors involving substitution, omission, and letter/word reversals were also observed. For example, students frequently confused visually similar words ("was" read as "saw") or omitted parts of words entirely. Such patterns point to weaknesses in visual tracking and word recognition, aligning with the observations of Modlin (2025) that visual perception plays an essential role in fluent word reading. Remediation in this area necessitates sight-word practice, explicit correction strategies, and visual aids to strengthen accuracy in word recognition. Similarly, fluency and pacing errors were another notable challenge. Struggling readers tended to read in a slow, halting manner, often pausing between words without proper phrasing or rhythm. Such behaviors limited their ability to read with expression and hindered comprehension. Research by Hsu, et al. (2023) underscores the importance of fluency as a bridge between word recognition and comprehension. Thus, strategies such as repeated reading, choral reading, and timed oral practice can be applied to enhance reading speed and expression. And finally, difficulties in reading comprehension were observed, primarily manifested in learners' inability to recall details, retell passages, or infer meaning from texts. These challenges were closely tied to weak foundational skills in decoding and fluency, reinforcing the idea that comprehension is built upon accurate and fluent word recognition. To address this, scaffolded comprehension strategies, such as guided questioning, story-mapping, and explicit discussion of text structures, should be integrated into remediation activities.

The findings of the study revealed that the most pressing difficulties among struggling Grade 3 readers were rooted in the foundational areas of phonics and fluency, which, in turn, hindered the development of higher-order comprehension skills. This observation indicates that learners were not only grappling with isolated

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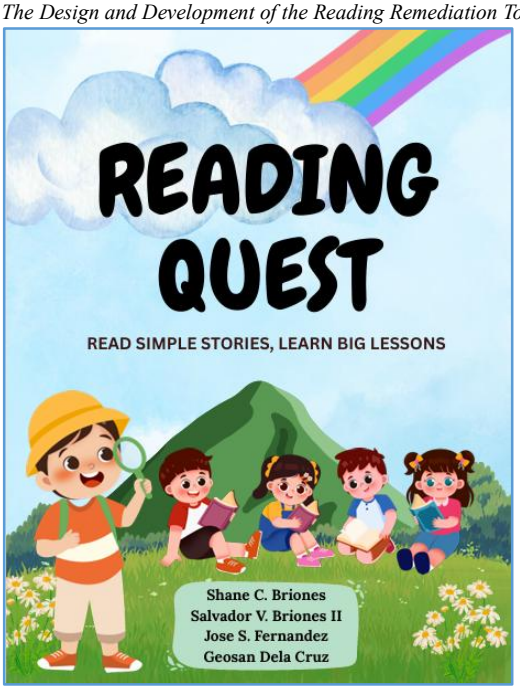
reading challenges but were also experiencing a compounded effect wherein basic decoding difficulties restricted their ability to make meaning from text. The categorization of these reading errors thus provided a strong empirical basis for the creation of targeted remediation tools tailored to address the specific deficiencies of learners in the study area. By aligning intervention strategies with the identified error patterns, the study ensured that the proposed instructional responses were evidence-based and directly responsive to the actual needs of struggling readers. Similarly, the categorization of errors also validated earlier research emphasizing that struggling readers in the intermediate grades often exhibit layered difficulties rather than singular, isolated issues (Akyol & Boyacı-Altınay, 2019). Specifically, for the Full Refresher Group, the predominance of decoding and fluency errors suggested that while pupils may have had prior exposure to foundational literacy instruction, substantial gaps remained in their ability to transfer early reading skills to grade-level texts. This finding points to a critical stage where failure to bridge early literacy foundations with more complex reading demands leads to persistent academic struggles.

These results reinforced the need for remediation tools that not only strengthen phonics and word recognition but also embed fluency-building strategies and scaffold comprehension. Systematic error analysis proved to be an essential diagnostic foundation in this regard, as it provided detailed insights into learners' unique difficulties, thereby guiding the design of more precise, responsive, and effective interventions. By integrating these findings into the development of remediation tools, the study highlighted both the urgency and the potential impact of evidence-based instructional responses in improving reading proficiency among struggling Grade 3 learners.

The Design and Development of the Reading Remediation Tool



The reading remediation tool, titled "*Reading Quest: Read Nature Stories, Grow Good Values"*, was developed as a structured instructional material designed to address the persistent literacy challenges of Grade 3 pupils in the full refresher group. Conceptually, the tool integrates short, contextualized stories with targeted reading activities, ensuring that foundational reading skills are strengthened in meaningful and engaging ways. It is not merely a collection of stories but a carefully crafted instructional package that combines phonics reinforcement, fluency practice, comprehension checks, and values integration. By presenting reading as an enjoyable quest through relatable and age-appropriate narratives, the tool motivates learners to actively participate in the remediation process.

Figures 1 to 9 illustrate the key components of the developed reading remediation tool. These selected pages demonstrate the material's structure, design elements, and pedagogical features, reflecting how literacy instruction, values education, and learner motivation were integrated into one comprehensive learning package. The visual presentation and activity flow of the tool support the findings that contextualized, age-appropriate, and interactive materials can effectively enhance reading proficiency among struggling learners.

Figure 1. *Cover Page of Reading Quest: Read Nature Stories, Grow Good Values*

Figure 1 presents the cover page of the developed reading remediation tool, which introduces the title, authors, and visual design theme. The nature-inspired imagery and simple layout aim to attract young readers and set a positive tone for literacy engagement.

Figure 2 presents the introduction page of the developed reading remediation tool, which outlines its purpose and instructional objectives. It explains that *Reading Quest* was designed to assist struggling readers in improving their decoding, fluency, and comprehension skills through contextualized and values-integrated stories.

The table of contents, as presented in Figure 3, illustrates the overall organization of the material, presenting the four nature-themed stories, *Raindrops Help the World, Stay Calm in the Storm, The Ground Shakes,* and *Fire Safety Time*, along with their corresponding activities and assessment sheets. It demonstrates the tool's logical sequencing and structured learning flow.

Moreover, Figure 4, the Sample Story Page, an excerpt from the story "Raindrops Help the World," designed in leveled text form to develop decoding and fluency skills. The sentences are short and supported by visuals that aid comprehension and sustain engagement among early readers.

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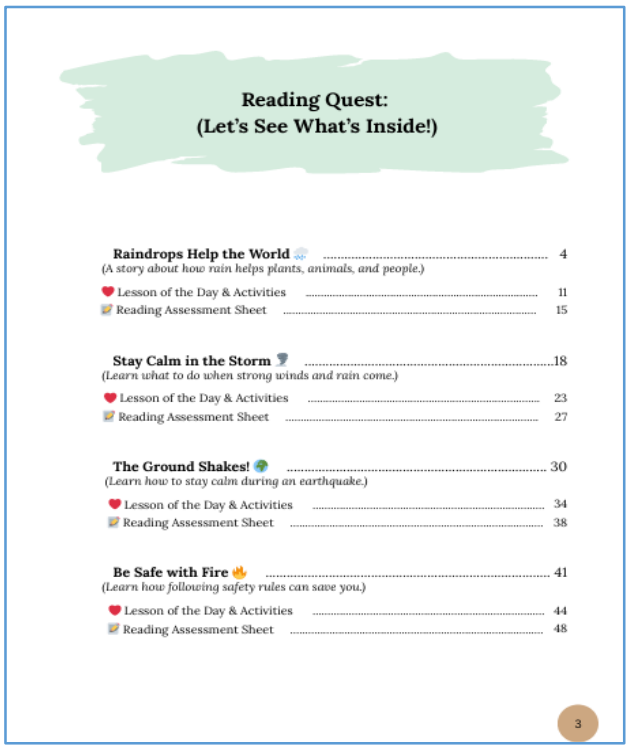


Figure 3. *Table of Contents of the Reading Quest Material*

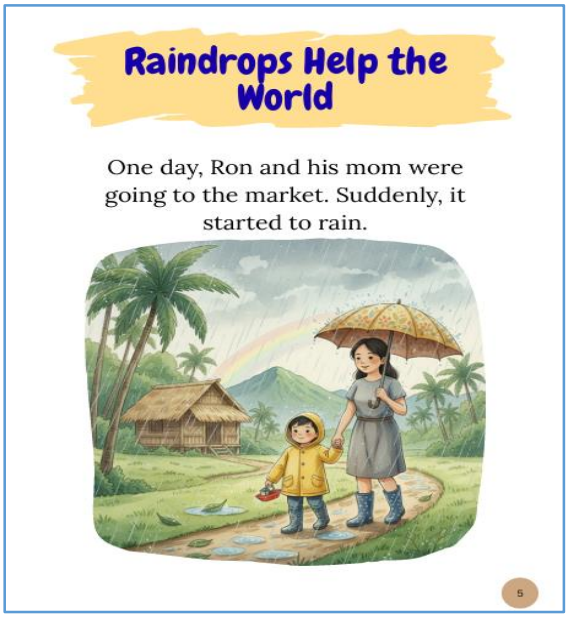
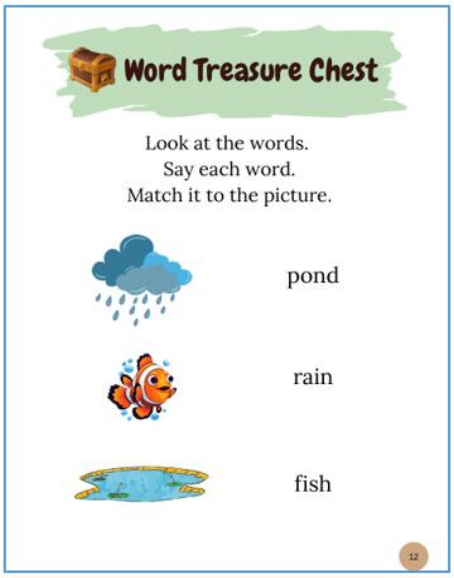


Figure 4. *Sample Story Page – "Raindrops Help the World"*



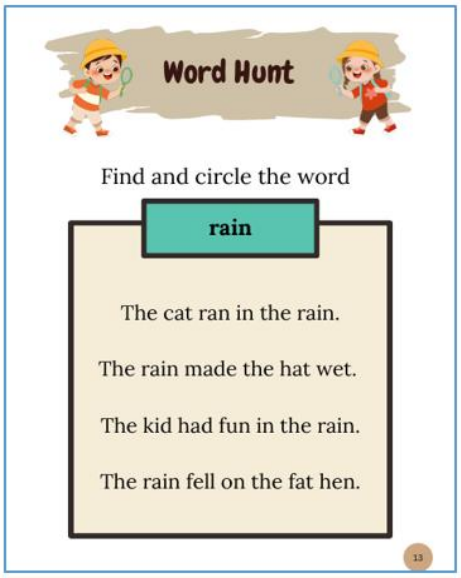


Figure 5. *Word Treasure Chest and Word Hunt Activities*

Figure 5 displays a section of the phonics and vocabulary activities that accompany each story. The *Word Treasure Chest* and *Word Hunt* tasks strengthen learners' decoding, word recognition, and spelling through visual association and repetition.

Figure 6. *Reading Assessment Sheet for Learner Progress Monitoring*

This figure presents the Reading Assessment Sheet used to evaluate reading accuracy, fluency, comprehension, and attitude toward reading. It enables teachers to document learner performance systematically, aligning with assessment tools such as CRLA.

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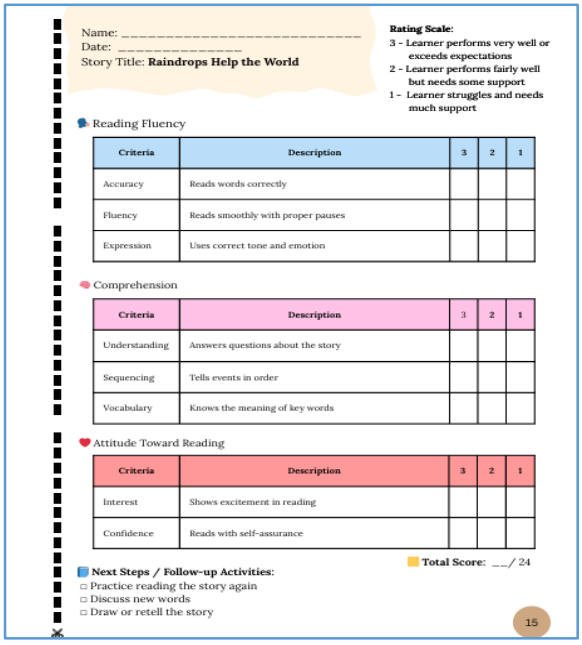

Name: _____
Date: _____
Story Title: **Raindrops Help the World**

Rating Scale:
3 - Learner performs very well or exceeds expectations
2 - Learner performs fairly well but needs some support
1 - Learner struggles and needs much support

Reading Fluency

Criteria	Description	3	2	1
Accuracy	Reads words correctly			
Fluency	Reads smoothly with proper pauses			
Expression	Uses correct tone and emotion			

Comprehension

Criteria	Description	3	2	1
Understanding	Answers questions about the story			
Sequencing	Tells events in order			
Vocabulary	Knows the meaning of key words			

Attitude Toward Reading

Criteria	Description	3	2	1
Interest	Shows excitement in reading			
Confidence	Reads with self-assurance			

Total Score: ___/ 24

Next Steps / Follow-up Activities:
- Practice reading the story again
- Discuss new words
- Draw or retell the story

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Figure 7 presents the Reading Evaluation Sheet incorporated in the *Reading Quest* tool. The form is designed to assist teachers in systematically assessing learners' reading performance across key literacy domains, including decoding accuracy, fluency, vocabulary, and comprehension. It serves as a formative assessment tool that enables teachers to document progress, identify persistent reading difficulties, and provide immediate instructional feedback. Aligned with existing assessment frameworks such as CRLA, this component reinforces the tool's evidence-based approach by linking instructional activities with measurable learning outcomes.

The Figure 8, *Certificate of Completion – Rain Reader Champion* shows a sample certificate awarded to learners upon completion of each story module. This motivational component reinforces positive reading behavior, acknowledges learner effort, and fosters intrinsic motivation toward literacy improvement.

And finally, Figure 9 highlights the "Lesson of the Day" and "Mini Reflection" sections, which integrate values education and critical thinking with reading comprehension. These parts encourage learners to connect literacy tasks with moral and social lessons relevant to daily life.

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The primary purpose of this *reading remediation tool* is to remediate the specific reading difficulties of Grade 3 struggling readers. Grounded in developmental and qualitative research, the material was carefully designed to bridge gaps in phonics, fluency, and comprehension, which systematic error analysis revealed as the most pressing challenges for the Full Refresher Group. Each story was crafted with intentional language structures, age-appropriate vocabulary, and guided comprehension questions, allowing learners to gradually build decoding skills, enhance fluency, and deepen their understanding of texts. By integrating repeated practice and scaffolding strategies, the tool also aimed to restore confidence and rekindle motivation among struggling readers, ensuring that remediation was not only corrective but also empowering.

Beyond addressing literacy gaps, *Reading Quest* equally sought to cultivate positive values through meaningful narratives. The four nature-inspired stories, Rain, Storm, Earthquake, and Fire, were deliberately chosen for their relevance to the learners' everyday lives and their capacity to highlight lessons in environmental awareness, safety preparedness, teamwork, and responsibility. Through these narratives, pupils were encouraged to see reading not merely as a mechanical exercise but as a way of connecting with real-life situations and moral lessons. In this sense, literacy development became a holistic process that strengthened not only cognitive abilities but also moral and social consciousness, demonstrating that effective reading instruction can shape learners into both competent readers and value-oriented individuals. Crucially, the tool's design was directly aligned with the identified reading errors of the target group, ensuring its evidence-based and learner-responsive approach. For pupils struggling with phonics and decoding, the stories employed controlled vocabulary, repetitive sentence structures, and phonics-based exercises to reinforce letter-sound recognition.

Meanwhile, comprehension was reinforced through structured questions and reflective activities, helping pupils link texts to personal experiences while internalizing the values embedded in the stories. This systematic alignment with actual error patterns maximized the tool's remedial potential, making *Reading Quest* both a literacy intervention and a values formation strategy tailored to the needs of Grade 3 struggling learners.

The development of this reading remediation tools and techniques were guided by the 4D Model proposed by Thiagarajan, Semmel, and Semmel (1974), which is widely used in the design and development of instructional materials. The model consists of four phases: Define, Design, Develop, and Disseminate, each providing a systematic framework for creating effective and learner-centered educational resources (Aimmah and Amin, 2025). Its emphasis on aligning instructional materials to learners' actual needs makes it particularly relevant for interventions targeting struggling readers.

Figure 10. The 4D Model by Thiagarajan, Semmel, and Semmel (1974)

In the context of this study, the Define phase enabled the identification and categorization of specific reading errors among Grade 3 pupils in the Full Refresher Group, serving as the foundation for intervention. The learners' most pressing challenges through diagnostic reading assessments and teacher feedback were recognized. Findings confirmed that the Full Refresher Group continued to struggle with decoding, fluency, and comprehension despite prior exposure to foundational literacy instruction. This analysis served as the empirical foundation for developing a remediation tool rooted in contextualized narratives. Consistent with Akyol and Boyacı-Altınay (2019), who emphasized that effective remediation must be grounded in systematic error analysis, the tool was designed to address decoding gaps, fluency-building, and comprehension scaffolds in a structured manner.

The Design phase focused on transforming the identified reading challenges and teacher inputs into structured, pedagogically sound instructional materials. Based from the data obtained, Grade 3 full refresher learners commonly exhibited difficulties in blending sounds, decoding unfamiliar words, recognizing sight words, and comprehending texts. Teachers also emphasized that learners were more engaged with contextualized and nature-related stories, and benefited from repetitive and multisensory learning activities. These findings served as design foundations for the remediation tool.

Accordingly, the tool featured four short, nature-themed stories, *Rain, Storm, Earthquake,* and *Fire*, strategically developed to reflect familiar and meaningful contexts that promote reading interest and comprehension. These themes were deliberately selected because of their relevance to the learners' lived experiences and their potential to integrate values education. Organized as "stations" in the Reading Quest, the stories were sequenced from simple to more linguistically complex texts, ensuring structured progression. Each story was written in leveled text form, integrating phonics drills, vocabulary exercises, and comprehension questions to target decoding, fluency, and understanding. Visual elements and simplified vocabulary were also incorporated to support learners with limited reading readiness. Reflection questions further reinforced meaning-making while embedding moral lessons such as care for the environment, teamwork, preparedness, and safety. Furthermore, the design addressed teachers' practical classroom needs by ensuring that the materials were flexible, and easily integrated into existing reading routines. Progress-monitoring components were embedded to align with commonly used assessment tools such as the Comprehensive Rapid Literacy Assessment (CRLA). This phase ensured that the reading remediation tools were not only evidence-based but also responsive to the real instructional context. By combining diagnostic data and teacher-informed insights, the materials were systematically crafted to enhance decoding, fluency, comprehension, and learner motivation.

The Develop phase concentrated on the actual creation, refinement, and enhancement of the reading remediation tool that emerged from the design blueprint. Building on the established content structure and pedagogical framework, this stage involved producing the prototype materials and ensuring that they adhered to age-appropriate linguistic and instructional standards. The four nature-themed stories, *Rain, Storm, Earthquake,* and *Fire*, were written with careful attention to vocabulary selection, sentence construction, and developmental suitability to address the identified reading difficulties of Grade 3 full refresher learners.

Each narrative was refined through several drafts to achieve a balance between linguistic simplicity and meaningful content, while integrating moral values such as cooperation, environmental care, and preparedness. This phase also focused on enhancing readability and learner engagement by incorporating visual supports, clear formatting, and concise activity directions. Exercises accompanying each story, such as phonics drills, word recognition tasks, and comprehension questions, were refined to provide guided reading practice and immediate feedback. Internal reviews were conducted to verify content accuracy, coherence, and instructional alignment. Through this process, the develop phase ensured that the reading remediation tool evolved into a cohesive instructional package that combined skill reinforcement with values formation. The resulting material was developed not merely as a reading text but as a structured instructional package designed to provide guided practice, immediate feedback, and reinforcement of key literacy skills. It was structured to be pedagogically robust, age-appropriate, and instructionally adaptable, ensuring readiness for expert validation and subsequent pilot implementation in authentic classroom settings.

As defined in the 4D model, the Disseminate phase represents the final stage in the development process, emphasizing the distribution, utilization, and adoption of the validated instructional material. Its primary purpose is to ensure that the developed tool, after undergoing systematic design, development, and validation, can be implemented effectively in authentic educational settings and made accessible to its intended users. In this study, the Disseminate phase involved preparing the final version of the reading remediation tool for pilot implementation and distribution to selected schools in Goa District. At this stage, the material was organized into a complete instructional package along with corresponding exercises and teacher's guides. The content and activities were finalized based on validation results to ensure pedagogical accuracy, readability, and usability. Consistent with the model used in the study, dissemination activities focused on orientation and familiarization of teachers with the tool's content, structure, and instructional approach. This step ensured proper understanding of how to integrate the materials within existing reading programs and remedial sessions. Copies of the tool were prepared for initial implementation, while feedback mechanisms, such as observation checklists and evaluation forms, were provided to gather insights from users during the trial period. Furthermore, this phase also encompassed efforts to communicate and promote the developed tool to relevant educational stakeholders, including teachers, reading coordinators, and school administrators. Through this process, the material transitioned from a research output to a practical instructional innovation ready for classroom use and potential wider adoption.

Through this systematic 4D process, the study was able to design and develop *Reading Quest: Read Nature Stories, Grow Good Values* as a remediation tool and technique that is firmly grounded in evidence while being tailored to the unique literacy needs of struggling Grade 3 readers. The integration of contextualized stories with values education enhanced its relevance, ensuring that the tool not only addressed academic gaps in phonics, fluency, and comprehension but also contributed to learners' character formation. This dual focus reflects the holistic nature of developmental research, where instructional tools are designed to be pedagogically sound, contextually meaningful, and responsive to both the cognitive and affective dimensions of learning.

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Implementation and Effectiveness Testing of the Reading Remediation Materials

After the completion of the validation process under the Develop Phase, the reading remediation tool was subjected to pilot implementation in selected schools. This stage aimed to determine the initial effectiveness of the developed material in improving reading proficiency among Grade 3 struggling readers and to evaluate its instructional suitability and classroom applicability. The pilot testing followed the principles of the 4D Model which emphasizes the importance of testing validated materials in real learning environments to assess their impact, usability, and adaptability. The participating teachers were oriented on the use of the material and its accompanying instructional guide to ensure consistency in implementation. The remediation sessions were conducted over a specified period, during which learners engaged in guided reading, phonics drills, word recognition, and comprehension activities aligned with the leveled text structure of the tool.

To assess the quality and instructional soundness of the developed reading remediation tool, evaluative data were gathered from literacy experts, language educators, and classroom teachers. Their evaluation focused on determining the material's content validity, clarity, language appropriateness, instructional design, learner engagement potential, and overall usability**.** Through this expert appraisal, both quantitative and qualitative feedback were obtained to ensure that the tool met the expected standards of pedagogical effectiveness and practical applicability.

Comments and recommendations from the evaluators were carefully analyzed and incorporated into the final version of the material, resulting in a refined and well-structured tool that responds to the needs of Grade 3 struggling readers. The summary of evaluation results is presented in Table 2: Expert Validation Results of the Developed Reading Remediation Tool**,** which reflects the mean scores and verbal interpretations across the major criteria. The findings indicate that the tool achieved a high level of acceptability among evaluators, confirming its overall quality, usability, and readiness for classroom implementation.

Table 2. Expert Validation Results of the Developed Reading Remediation Tool

Criteria	Indicators	Mean	Verbal Interpretation	Remarks
A. Content Quality	Alignment with learning competencies and reading objectives	4.80	Highly Acceptable	Content accurately reflects Grade 3 reading skills and developmental standards.
	Relevance to identified reading difficulties (decoding, fluency, comprehension)	4.75	Highly Acceptable	Directly addresses the common reading errors among struggling readers.
B. Instructional Design and Organization	Logical sequencing and progression of stories and activities	4.70	Highly Acceptable	Stories increase in difficulty following a leveled text structure.
	Clarity of instructions and activity format	4.65	Highly Acceptable	Instructions are clear, concise, and age-appropriate.
C. Language and Readability	Appropriateness of vocabulary and sentence structure	4.80	Highly Acceptable	Language level is suitable for Grade 3 learners with reading challenges.
	Readability and fluency of the text	4.60	Highly Acceptable	Sentences promote fluency and understanding.
D. Engagement and Motivation	Contextual relevance and learner appeal	4.85	Highly Acceptable	Nature-themed stories sustain student interest and motivation.
	Integration of values and moral lessons	4.75	Highly Acceptable	Stories promote character and values formation.
E. Usability and Practicality	Adaptability for classroom and home use	4.70	Highly Acceptable	Printable and flexible for varied reading contexts.
	Ease of integration into remedial sessions	4.65	Highly Acceptable	Activities are compatible with existing classroom routines.
Overall Mean		**4.73**	**Highly Acceptable**	The developed tool meets the expected standards of validity and usability.

The evaluation results, summarized in Table 2, reflect the collective judgments of literacy experts, language educators, and classroom teachers regarding the *Reading Quest: Read Nature Stories, Grow Good Values*. Overall, the tool was described as "highly acceptable"**,** demonstrating strong pedagogical soundness, clarity, and developmental appropriateness for Grade 3 struggling readers. The evaluators consistently emphasized that the content was well aligned with learning competencies and effectively addressed observed reading difficulties such as decoding, fluency, and comprehension. Across the different criteria, evaluators highlighted several key strengths. Under "Content Quality", they noted that the stories were age-appropriate and directly responsive to the learners' diagnosed reading needs. In terms of "Instructional Design and Organization", teachers appreciated the logical sequencing of the stories, the progression in text difficulty, and the clear layout of activity instructions. The "Language and Readability" aspect was also commended, as evaluators found the vocabulary manageable and the sentence structures supportive of fluency development.

Furthermore, evaluators described the tool as "engaging and motivating"**,** especially because of its nature-themed stories that reflect familiar experiences and embed values such as cooperation, preparedness, and environmental awareness. Teachers valued the inclusion of moral lessons and reflective questions, which they said enhanced learners' comprehension and character development. The tool's "usability and practicality" were likewise recognized, as its printable format and flexible structure allowed easy integration into remedial and classroom reading programs.

Narrative feedback revealed minor recommendations, such as improving the visual layout and expanding comprehension activities to cater to varied skill levels. These suggestions were integrated during the refinement phase, further improving the tool's readability and learner interactivity.

Overall, the qualitative feedback confirmed that *Reading Quest* is not only instructionally effective but also contextually relevant and engaging for struggling readers achieving a high level of pedagogical validity, contextual relevance, and practical usability. The expert and teacher evaluations collectively demonstrate that the material is well-structured, engaging, and responsive to the reading needs of struggling Grade 3 learners. Moreover, the findings confirm the tool's readiness for broader pilot testing and classroom adoption.

Conclusions and Recommendations

The study successfully developed and validated the *Reading Quest: Read Nature Stories, Grow Good Values*, a contextualized reading remediation tool designed to address the specific literacy needs of Grade 3 struggling readers in selected elementary schools in Goa District. Anchored in the 4D Model of Thiagarajan, Semmel, and Semmel, the research systematically progressed through the Define, Design, Develop, and Disseminate phases to produce an evidence-based, pedagogically sound, and contextually relevant instructional material. The findings revealed that most learners experienced persistent difficulties in phonological decoding, word recognition, reading fluency, and text comprehension, highlighting the necessity of a structured, leveled, and engaging approach to reading remediation.

The *Reading Quest* tool responded to these needs by integrating phonics drills, word recognition exercises, guided oral reading, and comprehension activities embedded within four short, nature-themed stories, *Rain, Storm, Earthquake,* and *Fire*. These stories were intentionally designed to be both educational and value-laden, fostering environmental awareness, teamwork, preparedness, and resilience among learners. The expert validation process revealed that the tool was described as "highly acceptable", demonstrating its strong alignment with Grade 3 learning competencies and its effectiveness in addressing identified reading challenges. Evaluators commended the material's content quality, linguistic appropriateness, instructional design, learner engagement potential, and practical usability. Furthermore, the tool's adaptability for both classroom and home-based instruction and its compatibility with existing assessment tools such as the CRLA

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further affirm its instructional reliability and relevance. Based on the findings, it is concluded that the *Reading Quest* remediation tool is a pedagogically robust, developmentally appropriate, and instructionally effective material capable of enhancing the reading proficiency and motivation of struggling Grade 3 learners. Its development process exemplifies how diagnostic data, teacher insights, and expert validation can be effectively synthesized to create a sustainable, research-based solution aligned with local educational contexts and national literacy objectives.

In relation to this, it is recommended that the *Reading Quest* tool be implemented across elementary schools within the Goa District and similar educational settings as a supplementary reading resource for struggling readers. Teachers should be properly oriented and trained in its use to ensure systematic integration with existing literacy programs and assessment systems such as the CRLA. Moreover, continuous improvement of the material is encouraged through the development of additional stories and exercises catering to diverse reading levels and learner needs. Expanding the tool's scope to higher grade levels and incorporating differentiated tasks will further enhance its impact and applicability. To sustain the intervention's effectiveness, capacity-building initiatives for teachers should be prioritized. Conducting regular workshops and professional development activities will equip teachers with the necessary skills to diagnose reading difficulties, implement remediation strategies, and utilize the *Reading Quest* materials efficiently. Equally important is the institutional and policy support from school administrators and local education authorities, particularly in allocating resources for printing, distribution, and teacher training to ensure the tool's widespread dissemination and sustainability. Finally, future research is encouraged to conduct quantitative evaluations of learners' reading performance before and after using the *Reading Quest* materials to determine their long-term effectiveness. Longitudinal studies may also explore how sustained implementation of the tool influences learners' academic performance, reading motivation, and self-efficacy. Collectively, these actions will strengthen the impact of *Reading Quest* as an innovative literacy intervention that promotes reading proficiency, values formation, and inclusive quality education consistent with the goals of the Department of Education and the Sustainable Development Goal 4 (SDG 4), ensuring equitable and quality education for all

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