

Effectiveness of ARAL-Reading Tool on Learners' Reading Fluency and Comprehension

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Abstract

This study evaluated the effectiveness of the ARAL-Reading Tool in improving reading fluency and comprehension among Grade Six learners in the Third District of Bohol during School Year 2025–2026. Anchored on Automaticity Theory, Schema Theory, and Sociocultural Theory, the study employed a quasi-experimental pretest-posttest control-group design involving 15 purposively selected learners. Seven learners received the eight-week ARAL-Reading Plus intervention, while eight received regular reading instruction. Data were gathered using the Philippine Informal Reading Inventory (Phil-IRI) and the Division of Bohol District Reading Assessment Template. Descriptive statistics and paired-samples and independent-samples t-tests were employed. Before the intervention, both groups demonstrated Frustration-level performance in reading fluency and comprehension. Following the intervention, the experimental group achieved 98.48% in fluency and 85.71% in comprehension, while the control group obtained 96.21% and 57.14%, respectively. Both groups demonstrated significant pretest-posttest improvements. However, between-group comparisons revealed a significant difference in comprehension ($p = .019$), but not in fluency ($p = .185$). The findings indicate that the ARAL-Reading Tool supported reading development, particularly comprehension. Strengthening structured reading interventions, instructional resources, teacher support, parental involvement, and continuous assessment was recommended. The study aligns with Sustainable Development Goal 4 (Quality Education) by addressing foundational literacy gaps and promoting equitable learning opportunities. Its contribution to educational and institutional sustainability emphasizes evidence-based reading interventions, stakeholder collaboration, and continued support for improving elementary learners' literacy outcomes and strengthening school-based educational recovery initiatives. The findings also provide a basis for school heads and education officials to refine implementation, allocate resources, and monitor reading progress.

Keywords: Academic Recovery and Accessible Learning (ARAL), Grade Six Learners, Literacy Development, Quasi-Experimental Research, Reading Comprehension, Reading Fluency, Reading Intervention, Sustainable Development Goal 4

1. Introduction

Reading proficiency is essential for understanding information, developing higher-order thinking skills, and achieving academic success. Nevertheless, many learners experience difficulties in reading accurately, fluently, and meaningfully. These challenges emphasize the importance of systematic reading interventions that respond

to individual learning needs. International research indicates that structured reading interventions can improve learners' fluency and comprehension (Nurmahanani, 2023). Linder et al. (2023) reported improvements in reading and spelling through digital phonics-based instruction among learners with special needs in Switzerland, while fluency interventions involving repeated and assisted reading in the United States demonstrated improvements in reading performance and motivation (Cruz et al., 2023). In the Philippines, persistent literacy gaps prompted the implementation of the ARAL-Reading Program under the National Learning Recovery Program to strengthen foundational reading competencies (Department of Education [DepEd], 2025a). However, differences in program implementation and learner outcomes continue to present challenges (The Freeman, 2025). In Bohol, Canoy and Loquias (2022) identified reading difficulties among elementary learners, highlighting the need for appropriate interventions to strengthen reading performance. In Valencia District, the present study addresses similar concerns among Grade Six learners experiencing difficulties in oral reading fluency and comprehension. These concerns established the need to examine the effectiveness of the ARAL-Reading Tool in improving reading outcomes and providing evidence for strengthening literacy instruction.

The reviewed literature identifies reading fluency, comprehension, structured remediation, differentiated instruction, and instructional support as important components of effective literacy development. Reading fluency involves accuracy, speed, and appropriate expression, enabling learners to recognize words efficiently and devote greater attention to understanding texts (Grabe & Yamashita, 2022; Rasinski et al., 2022). Repeated exposure and meaningful reading practice promote automatic word recognition (LaBerge & Samuels, 1974). Maki and Hammerschmidt-Snidarich (2022) found that fluency interventions improved reading performance. The National Reading Panel (2000) emphasized the importance of systematic reading instruction, including fluency development and comprehension strategies. More recent evidence from Denton et al. (2022) demonstrated that foundational-skills and multicomponent reading interventions can improve reading comprehension among primary-grade learners with reading difficulties. Likewise, Dahl-Leonard et al. (2024) found that technology-delivered literacy instruction can positively influence elementary learners' literacy outcomes. Reading comprehension involves constructing meaning, connecting information, and applying reasoning to written texts (Cain & Oakhill, 2023). It requires the coordination of decoding, vocabulary, background knowledge, and higher-order thinking processes (Duke & Cartwright, 2021; Snow, 2002). Duke and Cartwright (2021) highlighted explicit comprehension strategies, while Cain and Oakhill (2023) stressed inference-making and comprehension monitoring. Philippine studies further support structured literacy interventions. Nones (2023) demonstrated improvements in Grade Six reading fluency through Project 4P's, while Ligpitan et al. (2024) reported improved comprehension and retention through technology-supported learning activities. Talain and Cruzado (2024) found that Catch-Up Fridays strengthened reading comprehension, while Denton et al. (2022) provided evidence supporting foundational-skills and multicomponent reading interventions for learners experiencing reading difficulties. Other investigations identified factors influencing reading development. Cadalay and Dilawi (2025) associated comprehension difficulties with vocabulary, fluency, and home and social environments. Centeno (2024) reported improved comprehension through Project READY PLUS+, while Cubillas and Cangke (2023) demonstrated the benefits of audio-assisted reading for fluency and pronunciation. Similarly, Jumao-as et al. (2025) found that structured remediation improved learners' reading comprehension levels. Collectively, these studies demonstrate the importance of consistent, learner-centered, and evidence-based reading interventions. They also provide empirical support for examining the ARAL-Reading Tool as an approach to improving fluency and comprehension among struggling readers. Globally, literacy development remains a major educational priority because reading proficiency influences academic participation and lifelong learning. International evidence supports structured interventions that combine repeated reading, guided instruction, and appropriate learning resources to improve reading outcomes (Nurmahanani, 2023). The importance of foundational literacy is further reflected in the United Nations' commitment to inclusive and equitable quality education (United Nations, 2015). At the national level, reading comprehension remains a persistent concern among Filipino learners. Cariaso (2025) reported that the Department of Education began implementing the ARAL Program as part of efforts to address the country's learning crisis. Philippine Informal Reading Inventory assessments have identified learners performing at frustration and instructional reading levels (Department of Education, 2018). Similarly, the Programme for International Student Assessment (PISA) 2022 indicated that Filipino learners performed below the international average in reading literacy (Organisation for Economic Co-operation and Development [OECD], 2023). In response, the Philippine government strengthened its educational recovery initiatives through the ARAL Program, institutionalized under Republic Act No. 12028 (Republic of the Philippines, 2024). The Department of Education issued Memorandum No. 64, s. 2025, directing the phased implementation of the ARAL-Reading Program to support learners performing below expected reading proficiency levels (DepEd, 2025c). The Department of Education subsequently launched the ARAL Program nationwide on September 13, 2025, to address learning gaps and strengthen foundational competencies among learners (DepEd, 2025b). The program provides targeted tutorial assistance in reading, mathematics, and science, with priority given to learners experiencing foundational learning difficulties (DepEd, 2025c; Philippine Information Agency, 2025). The program also supports the objectives of Republic Act No. 10533, which emphasizes foundational competencies and functional literacy within basic education (Republic of the Philippines, 2013). Furthermore, the National Learning Recovery Program promotes structured interventions intended to address learning losses and strengthen educational outcomes (Department of Education, 2023). Locally, Valencia

District in the Third District of Bohol continues to address reading difficulties among elementary learners. Grade Six learners who perform below expected reading levels require appropriate instructional support, particularly in fluency and comprehension (Canoy & Loquias, 2022). This situation highlights the importance of evaluating the ARAL-Reading Tool within the local educational setting.

The study is grounded in Automaticity Theory, Schema Theory, and Sociocultural Theory, which explain the development of reading fluency and comprehension through repeated practice, prior knowledge, and guided learning. Automaticity Theory, introduced by LaBerge and Samuels (1974), explains that efficient word recognition reduces the cognitive effort required for decoding, allowing readers to concentrate on comprehension. Feruzi (2021) emphasized that automaticity develops through consistent practice characterized by reading speed, accuracy, and reduced conscious effort. This theory provides the primary foundation for the ARAL-Reading Tool, which incorporates repeated and guided reading activities to strengthen fluency. Schema Theory explains that comprehension develops when readers connect new information with existing knowledge. Anderson and Pearson (1984) emphasized the importance of prior knowledge in interpreting written texts, while Yang (2023) highlighted schema activation in supporting inference-making and understanding. This perspective supports the use of contextualized passages and comprehension activities that connect reading materials with learners' experiences. Sociocultural Theory, proposed by Vygotsky (1978), emphasizes learning through social interaction, instructional guidance, and scaffolding. The Zone of Proximal Development explains how learners accomplish increasingly complex tasks with appropriate assistance. Nicholas et al. (2021) emphasized that guided reading, modeling, questioning, and feedback strengthen literacy development within this learning framework. Together, these theories support the study's conceptual approach, in which Grade Six learners receiving the ARAL-Reading Tool are compared with learners receiving regular reading instruction. Their pretest and posttest reading performance provides the basis for evaluating changes in fluency and comprehension and developing a proposed implementation plan. Previous studies have demonstrated the effectiveness of structured reading programs, technology-supported instruction, differentiated activities, and targeted remediation in improving literacy outcomes (Denton et al., 2022; Ligpitan et al., 2024; Nones, 2023; Talain & Cruzado, 2024). Other investigations have emphasized the influence of vocabulary, learning environments, auditory support, and systematic remediation on reading performance (Cadalay & Dilawi, 2025; Centeno, 2024; Cubillas & Cangke, 2023; Jumao-as et al., 2025). Despite these findings, the reviewed studies primarily examined other reading interventions and instructional strategies. The effectiveness of the ARAL-Reading Tool in simultaneously improving reading fluency and comprehension among Grade Six learners in Valencia District required further examination. Additionally, reports of varying literacy outcomes under national recovery initiatives suggest the importance of evaluating intervention effectiveness within specific school contexts (The Freeman, 2025). To address this gap, the present study assessed the pretest and posttest reading performance of experimental and control groups and examined differences in fluency and comprehension within and between the groups. The investigation aimed to generate evidence that could support instructional decisions and guide the development of an implementation plan for strengthening the ARAL-Reading Tool.

The study primarily aligns with Sustainable Development Goal 4 (Quality Education), which promotes inclusive and equitable education and lifelong learning opportunities (United Nations, 2015). Its emphasis on improving foundational literacy directly supports the development of essential competencies necessary for academic progression and continued learning. The ARAL-Reading Tool contributes to this objective by providing structured instructional support for learners experiencing difficulties in reading fluency and comprehension. Through targeted remediation and assessment-based instruction, the program supports efforts to reduce learning gaps and improve educational participation. The study also supports the educational recovery objectives reflected in Republic Act No. 10533 and the National Learning Recovery Program, which emphasize foundational learning competencies and systematic instructional interventions (Department of Education, 2023; Republic of the Philippines, 2013). Likewise, the institutionalization of the ARAL Program under Republic Act No. 12028 (Republic of the Philippines, 2024) reinforces the national commitment to addressing literacy difficulties through accessible learning support. By evaluating the intervention's effectiveness, the research provides evidence relevant to improving literacy programs and supporting the achievement of SDG 4 within the local educational setting.

The study contributes primarily to educational sustainability, with related implications for social, institutional, and policy sustainability. Its significance extends beyond individual reading performance by providing evidence that may support the continued improvement of foundational literacy instruction. From an educational sustainability perspective, the study emphasizes structured reading interventions that help learners develop fluency and comprehension, supporting their readiness for more advanced learning. It provides teachers with insights into instructional strategies that may be adapted to learners' reading abilities and educational needs. In terms of social sustainability, improving foundational literacy supports more equitable learning opportunities for learners experiencing reading difficulties. Strengthening comprehension and reading proficiency may help reduce educational disadvantages and encourage continued participation in learning. For institutional sustainability, the findings may assist school heads and teachers in improving reading intervention practices, monitoring learner progress, and identifying appropriate instructional resources. The study also provides a basis for strengthening collaboration among teachers, school administrators, parents, and other educational stakeholders. Regarding policy and governance sustainability, the research offers evidence that may inform the Department of Education's implementation, monitoring, and refinement of literacy recovery initiatives. Its findings support the continuing

objectives of the ARAL Program and national educational recovery policies. Overall, the study contributes to sustainable educational development by examining an intervention intended to improve essential literacy competencies. Its findings may guide school-based reading practices, strengthen educational support systems, and inform continued efforts to provide quality learning opportunities for elementary learners.

2. Material and methods

2.1 Research Design

The study utilized a quasi-experimental pretest-posttest control-group design to determine the effectiveness of the ARAL-Reading Tool on learners' reading fluency and comprehension. The experimental group received the ARAL-Reading Plus intervention, while the control group continued with regular reading instruction. Both groups underwent pretest and posttest assessments to measure changes in reading performance. The design allowed comparisons within and between groups to determine whether the intervention was associated with improvements in fluency and comprehension.

2.2 Locale of the Study

The study was conducted in Valencia District, Third District of Bohol, Philippines, during School Year 2025–2026. The research setting was selected because of the reading difficulties observed among Grade Six learners, particularly in fluency and comprehension. As one of the Grade Six teachers in the participating school, the researcher had firsthand knowledge of these challenges and was able to implement and monitor the intervention while systematically collecting learners' reading performance data.

2.3 Respondents of the Study

The respondents consisted of fifteen (15) Grade Six learners enrolled during School Year 2025–2026. Seven (7) learners comprised the experimental group, which received the ARAL-Reading Plus intervention, while eight (8) learners formed the control group, which continued with regular reading instruction. Both groups participated in pretest and posttest assessments measuring reading fluency and comprehension. Their performance was classified into Independent, Instructional, or Frustration levels based on the prescribed assessment criteria.

2.4 Sample and Sampling Procedure

Purposive sampling was employed to select fifteen (15) Grade Six learners who were enrolled during the study period, had completed the initial reading assessment, and were available to participate in the eight-week intervention and required assessments. The participants were assigned to experimental and control groups using the ARAL Simulator, with group composition also described in the manuscript as based on existing class composition and learner availability. The experimental group received the structured ARAL-Reading Plus intervention, while the control group followed regular classroom reading instruction. This grouping allowed the researcher to compare changes in reading performance before and after the intervention.

2.5 Research Instrument

The study utilized the Philippine Informal Reading Inventory (Phil-IRI), developed by the Department of Education (DepEd), and the District Reading Assessment Template Adopted by the Division of Bohol for School Year 2025–2026. These existing instruments were selected to assess reading fluency and comprehension before and after the intervention. The Phil-IRI measured reading proficiency through oral and silent reading activities. Oral reading assessed accuracy and fluency, while comprehension activities evaluated learners' understanding of written texts. Reading performance was classified as Independent, Instructional, or Frustration according to the prescribed criteria. The District Reading Assessment Template complemented the Phil-IRI by recording reading time, speed rate, comprehension scores, comprehension rate, and overall reading level. The researcher followed the established administration, scoring, and interpretation procedures of both instruments to maintain consistency in data collection. The study relied on their existing assessment guidelines rather than developing new instruments, with any additional validation dependent on actual documentation.

2.6 Data Gathering Procedure

Data collection was conducted through preparation and approval, intervention implementation, and post-intervention assessment. Initially, the researcher secured a recommendation from the thesis adviser and the Dean of the School of Advanced Studies, followed by endorsement from the Campus Director and approval from the University President. Permission was subsequently requested from the Department of Education through the Schools Division Superintendent of Bohol, the District Supervisor of Valencia, and the concerned school head. After identifying eligible participants, parental or guardian consent and learner assent were obtained. The Phil-IRI and District Reading Assessment Template were then administered to both groups to establish baseline reading fluency and comprehension. The experimental group participated in the ARAL-Reading Plus intervention for eight (8) weeks, consisting of four sessions weekly or thirty-two (32) sessions. Instruction utilized the Department of Education's ARAL-Reading Teacher's Guide and learners' workbooks. Fluency activities included teacher modeling, word recognition exercises, guided oral reading, repeated reading, and practice in accuracy, pacing,

and expression. Comprehension activities involved vocabulary development, identifying main ideas and supporting details, answering questions, predicting outcomes, sequencing events, summarizing passages, and making inferences. Guided, paired, and individual reading activities were supported by instructional scaffolding, immediate feedback, corrective guidance, formative assessments, and progress monitoring. Meanwhile, the control group continued with regular reading instruction based on the existing curriculum and prescribed learning competencies. Activities included teacher-led oral reading, vocabulary exercises, silent reading, comprehension questions, worksheets, and text discussions, with regular teacher explanations and feedback. Unlike the experimental group, the control group did not receive the structured ARAL-Reading Plus intervention package. Both groups were monitored during the same eight-week period. Following the intervention, the same reading assessment instruments were administered as posttests to both groups. The researcher checked, organized, and recorded the results to determine changes in reading fluency and comprehension. The collected data were subsequently prepared for statistical analysis, while participants' identities and assessment records remained confidential.

2.7 Data Analysis Techniques

The study employed frequency, percentage, and arithmetic mean to describe the pretest and posttest reading performance of the experimental and control groups. Reading fluency was assessed using word-reading accuracy expressed as percentages, while comprehension was measured through the percentage of correct responses to comprehension questions. For reading fluency, scores of 97%–100% were classified as Independent, 90%–96% as Instructional, and below 90% as Frustration. For reading comprehension, scores of 90%–100% were classified as Independent, 80%–89% as Instructional, and below 80% as Frustration. Mean scores were used to summarize learners' average performance and identify changes in reading proficiency. Inferential analysis employed independent-samples t-tests to determine significant differences between the experimental and control groups and paired-samples t-tests to examine pretest-posttest differences within each group. Statistical significance was evaluated at the 0.05 level. These analyses provided the basis for assessing the effectiveness of the ARAL-Reading Tool in improving learners' reading fluency and comprehension.

2.8 Ethical Considerations

The study observed ethical principles concerning informed consent, voluntary participation, confidentiality, and the protection of minors. Before data collection, the researcher obtained the necessary institutional and Department of Education approvals, parental or guardian consent, and age-appropriate assent from participating learners. Participants were informed that they could withdraw without penalties or negative consequences affecting their grades, school standing, or access to regular instruction. The researcher ensured that the intervention and assessments were appropriate to learners' ages, abilities, and educational needs. Both groups continued receiving reading instruction, and activities were conducted to minimize discomfort, embarrassment, or undue pressure. Learners experiencing reading difficulties were treated respectfully and were not discriminated against or disadvantaged because of their performance. Confidentiality was maintained by using participant codes and excluding identifying information from research reports. Assessment records were securely stored and accessed only by authorized individuals for legitimate research purposes. Photographs and other identifying documentation were used only with appropriate parental or guardian permission and in accordance with applicable school and data privacy requirements. The researcher also maintained accurate and objective reporting of findings without fabrication, alteration, or misrepresentation.

3. Results and Discussion

3.1 Reading Performance of the Experimental and Control Groups Before the Intervention

3.1.1 Pretest Reading Fluency

Before the intervention, both groups demonstrated reading fluency at the frustration level. In the experimental group, four of seven learners (57.14%) were classified at the frustration level, while three (42.85%) were at the instructional level. The group obtained a mean score of 118 out of 132 words, equivalent to 89%. Similarly, six of eight learners (75%) in the control group were at the frustration level, while two (25%) were at the instructional level. The control group recorded a mean score of 116 words, equivalent to 88%. Both groups were classified at the frustration level based on their mean scores. These findings indicate that both groups experienced difficulties in reading fluency before the intervention, particularly in word recognition and reading accuracy. The higher proportion of frustration-level readers in the control group suggested greater initial reading difficulties among its members. Nevertheless, the similar mean classifications established a baseline for evaluating changes in reading performance following the intervention.

3.1.2 Pretest Reading Comprehension

The pretest results revealed that all learners in both groups were classified at the frustration level in reading comprehension. All seven experimental-group learners (100%) and all eight control-group learners (100%) scored below the instructional-level threshold. Both groups obtained a mean comprehension score of 3 out of 8 questions, equivalent to 37.50%. No learner reached the instructional or independent comprehension level. These results

demonstrate that reading comprehension was a common difficulty among the participants before the intervention. The identical mean scores indicate that both groups had similarly low baseline comprehension performance. This finding emphasized the need for focused reading instruction to strengthen learners' ability to understand, interpret, and respond to written texts.

3.2 Reading Performance of the Experimental and Control Groups After the Intervention

3.2.1 Posttest Reading Fluency

Following the eight-week intervention, both groups demonstrated improved reading fluency. In the experimental group, five of seven learners (71.43%) reached the independent level, while one learner remained at the frustration level. The group obtained a mean score of 130 out of 132 words, equivalent to 98.48%, classified at the independent level. In the control group, four of eight learners (50%) reached the independent level, three (37.50%) were at the instructional level, and one (12.50%) remained at the frustration level. The control group obtained a mean score of 127 words, equivalent to 96.21%, classified at the instructional level. The findings indicate that reading fluency improved in both groups, although the experimental group achieved a higher mean score and reading classification. The improvement suggests that structured reading activities under the ARAL-Reading Plus Program supported learners' word recognition and reading accuracy. This finding is consistent with Nones (2023), who reported improvements in reading fluency among Grade Six learners following a structured reading intervention. The results support the importance of systematic reading practice in developing fluency.

3.2.2 Posttest Reading Comprehension

The posttest results showed greater improvement in reading comprehension among learners in the experimental group. Four of seven learners (57.14%) reached the instructional level, while three (42.86%) attained the independent level. The group obtained a mean comprehension score of 6 out of 8 questions, equivalent to 85.71%, classified at the instructional level. Meanwhile, the control group obtained a mean score of 4 out of 8 questions, equivalent to 57.14%, and remained at the frustration level. The manuscript reported five control-group learners at the instructional level and three at the frustration level. These findings suggest that the ARAL-Reading Plus Program provided structured opportunities for learners to strengthen their understanding and interpretation of written texts. Although both groups improved, the experimental group demonstrated a greater increase in comprehension performance and progressed from the frustration to the instructional level. This finding is supported by Ligpitan et al. (2024), who reported improved reading comprehension among elementary learners following the implementation of the TechPlay Fusion Strategy. The results emphasize the value of structured and engaging reading interventions in developing comprehension skills.

3.3 Significant Differences in Reading Performance

3.3.1 Difference Between the Pretest Performance of the Experimental and Control Groups

The independent-samples t-test revealed no significant difference between the experimental and control groups in pretest reading fluency and comprehension. For reading fluency, the computed t-value was 0.727, with 13 degrees of freedom and a p-value of .480. For reading comprehension, the t-value was -0.709, with 13 degrees of freedom and a p-value of .491. Both p-values exceeded the 0.05 significance level; therefore, the null hypotheses were not rejected. These findings indicate that the experimental and control groups had statistically comparable reading performance before the intervention. Their similar baseline conditions provided a basis for examining subsequent changes in reading outcomes. This finding is consistent with Talain and Cruzado (2024), who employed a pretest-posttest control-group design to evaluate reading comprehension among Grade Six learners. Establishing comparable initial performance supported the evaluation of changes following the reading intervention.

3.3.2 Difference Between the Pretest and Posttest Performance of the Experimental Group

The paired-samples t-test showed significant improvements in both reading fluency and comprehension among experimental-group learners. Reading fluency obtained a t-value of -4.97, with 6 degrees of freedom, a mean difference of -11.71, and a p-value of .003. Reading comprehension obtained a t-value of -6.49, with 6 degrees of freedom, a mean difference of -3.43, and a p-value of less than .001. Both p-values were below the 0.05 significance level, resulting in the rejection of the null hypotheses. These results indicate that learners who participated in the ARAL-Reading Plus Program demonstrated statistically significant improvements in reading fluency and comprehension. The negative mean differences reflected higher posttest scores because the differences were calculated by subtracting posttest scores from pretest scores. The findings suggest that the structured intervention supported learners' reading development through systematic practice and comprehension activities. This result agrees with Centeno (2024), who reported significant improvements in reading comprehension among Grade Six learners following a targeted reading intervention.

3.3.3 Difference Between the Pretest and Posttest Performance of the Control Group

The control group also demonstrated statistically significant improvements in reading fluency and comprehension. Reading fluency obtained a t-value of -4.18, with 7 degrees of freedom, a mean difference of -10.00, and a p-value of .004. Reading comprehension recorded a t-value of -2.99, with 7 degrees of freedom, a mean difference of -1.38, and a p-value of .020. Both p-values were below the 0.05 significance level, indicating significant

differences between pretest and posttest performance. These findings suggest that regular reading instruction was also associated with improvements in learners' reading performance. Continued classroom reading activities, teacher guidance, and opportunities for reading practice may have contributed to these gains. The result is consistent with Cubillas and Cangke (2023), whose findings demonstrated improvements in reading fluency through continued exposure to structured reading activities. Thus, regular instruction remained beneficial, although the experimental group demonstrated greater improvement in comprehension.

3.3.4 Difference Between the Posttest Performance of the Experimental and Control Groups

The independent-samples t-test revealed no significant difference in posttest reading fluency between the experimental and control groups. The computed t-value was 1.40, with 13 degrees of freedom, a mean difference of 4.23, and a p-value of .185. Since the p-value exceeded 0.05, the null hypothesis was not rejected. However, reading comprehension showed a significant difference, with a t-value of 2.68, 13 degrees of freedom, a mean difference of 1.63, and a p-value of .019. The null hypothesis for reading comprehension was therefore rejected. These findings indicate that although both groups improved in reading fluency, their posttest performance did not differ significantly. In contrast, the experimental group demonstrated significantly higher reading comprehension performance than the control group. This suggests that the ARAL-Reading Plus Program was associated with a more distinct improvement in comprehension than in fluency. The finding is supported by Jumao-as et al. (2025), who reported significant improvements in learners' reading levels and comprehension following a reading remediation program. The results highlight the potential contribution of structured reading interventions to developing comprehension among struggling readers.

3.4 Overall Effectiveness of the ARAL-Reading Plus Program

The overall findings revealed improvements in reading fluency and comprehension in both groups after the eight-week study period. The experimental group progressed from a mean fluency score of 89% at the frustration level to 98.48% at the independent level, while its comprehension score increased from 37.50% at the frustration level to 85.71% at the instructional level. The control group improved from 88% to 96.21% in fluency and from 37.50% to 57.14% in comprehension. Both groups demonstrated statistically significant pretest-posttest improvements. However, the between-group comparison showed a significant difference only in reading comprehension ($p = .019$), not in reading fluency ($p = .185$). These findings suggest that the ARAL-Reading Plus Program supported improvements in learners' reading performance, particularly comprehension. While regular instruction was also associated with progress, the structured intervention produced a more pronounced difference in comprehension outcomes. The findings align with the reported results of Nones (2023), Centeno (2024), and Jumao-as et al. (2025), which emphasized the contribution of systematic reading interventions to learners' literacy development. The results provide a basis for strengthening targeted reading instruction and developing an enhancement program to address learners' continuing difficulties in fluency and comprehension.

4. Conclusion & Recommendations

The study concluded that the ARAL-Reading Plus Program contributed to improvements in the reading fluency and comprehension of Grade Six learners in the Third District of Bohol. Learners who received the intervention demonstrated progress in both areas, with significantly higher reading comprehension performance than those who received regular reading instruction. Although both groups improved in reading fluency, their posttest performance did not differ significantly. Overall, the findings indicate that the ARAL-Reading Tool provided structured reading support that strengthened learners' reading skills, particularly comprehension, and may serve as a useful school-based intervention for addressing reading difficulties among elementary learners.

Based on the findings, teachers are encouraged to strengthen the implementation of the ARAL-Reading Tool through guided and repeated reading, comprehension activities, regular assessments, and individualized support for struggling readers. School heads should provide appropriate instructional materials, schedules, technical assistance, and opportunities for teachers to share effective practices, while the Department of Education, particularly its Schools Division and District Offices, should support implementation through training, technical guidance, and resources. Parents and guardians are encouraged to reinforce reading development at home through age-appropriate materials, oral reading practice, and comprehension activities. Future researchers may conduct similar studies involving larger samples, longer intervention periods, and different grade levels or school settings to further examine the effectiveness of structured reading interventions.

5. Compliance with ethical standards

The study adhered to established ethical standards in educational research involving minors. Necessary permissions were secured from university authorities, the Department of Education, and the concerned school officials. Informed consent was obtained from parents or legal guardians, and assent was secured from participating Grade Six learners. Participation was voluntary, with the right to withdraw without penalty. Confidentiality and data privacy were maintained through participant coding, secure data storage, and restricted

access to research records. All participants were treated fairly and respectfully, and the findings were reported accurately and objectively without fabrication or misrepresentation.

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