

LEARNERS' READING COMPREHENSION BEFORE AND AFTER PARTICIPATION IN THE ACADEMIC RECOVERY AND ACCESSIBLE LEARNING (ARAL) PROGRAM: A MIXED-METHODS STUDY

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Abstract. This study assessed the role of the Accelerated Learning and Remediation Program in improving academic performance and facilitating learning recovery among Grade 4–6 learners in an elementary school in the Schools Division of Bohol, Philippines. The study addressed the need for evidence on structured learning recovery interventions to improve learners' reading comprehension and foundational academic skills following identified learning gaps. Specifically, it aimed to determine changes in learners' academic performance before and after participation in the program and to examine teachers' experiences and challenges in its implementation. The study employed a mixed-methods research design, integrating quantitative and qualitative data. Fifty learners took diagnostic and post-tests measuring reading comprehension and foundational skills, while ten teachers were interviewed about their experiences, challenges, and observations during program implementation. The results showed substantial improvement in learners' performance after the intervention. Before participation, 15 learners were classified at the Frustration Level, 27 at the Instructional Level, and 8 at the Independent Level. After the intervention, no learners remained at the Frustration Level, 28 were at the Instructional Level, and 22 reached the Independent Level. Statistical analysis further showed that post-test scores (mean = 72.82) were significantly higher than diagnostic scores (mean = 65.12), with a paired-samples t-test result of $t(49) = 29.50, p < 0.001$. Teacher interviews revealed challenges related to competing instructional demands, resource constraints, and the need to build teacher capacity. Overall, the findings indicate that the program effectively supports learning recovery and strengthens learners' foundational academic skills, highlighting the importance of adequate instructional time, resources, and teacher support for sustained academic improvement.

Keywords: ARAL program, elementary school, embedded mixed-methods design, learning recovery, reading comprehension

Introduction

In today's interconnected world, reading literacy remains a fundamental component of lifelong learning and active participation in society. Reading literacy extends beyond recognizing words; it involves understanding, interpreting, evaluating, and engaging with written texts across different contexts. UNESCO (2023) recognizes literacy as an essential foundation for lifelong learning, while the Organisation for Economic Co-operation and Development (OECD, 2021) emphasizes that effective reading enables learners to access, interpret, and apply information

across academic and everyday contexts. Consequently, reading difficulties, particularly inadequate foundational skills, can constrain learners' ability to participate successfully in learning across subject areas. Recent international evidence likewise indicates that weaknesses in foundational decoding and reading skills remain a significant barrier to achieving broader literacy goals, particularly in low- and middle-income countries (Crawford et al., 2025). These conditions underscore the importance of systematic assessment and targeted interventions that identify learners' needs and provide appropriate instructional support.

In the Philippines, concerns regarding learners' reading proficiency have been highlighted by national and international assessments. The results of the Programme for International Student Assessment (PISA) have indicated persistent challenges in reading performance among Filipino learners (Department of Education [DepEd], 2019, 2022; OECD, 2023). These concerns have strengthened the need for learning recovery initiatives that address identified gaps in foundational literacy and academic skills. In response, the Philippine government institutionalized the Academic Recovery and Accessible Learning (ARAL) Program through Republic Act No. 12028 (2024), with the aim of providing structured learning recovery and support to learners experiencing academic difficulties. DepEd guidelines further provide a framework for implementing interventions in areas such as reading and numeracy (Department of Education, 2025). The implementation of the ARAL Program therefore represents an important response to persistent learning gaps, particularly among elementary learners whose reading proficiency serves as a foundation for subsequent academic learning.

Emerging studies have begun to document the potential of the ARAL Program to address learners' literacy difficulties. Buahe (2026), for example, examined ARAL implementation among struggling Grade IV learners in Bataraza Central School in Palawan and reported improvements in word recognition, fluency, and reading comprehension. Arroyo et al. (2026) likewise reported improvements in reading comprehension and proficiency among elementary learners participating in an ARAL intervention in Iloilo. Other studies have examined learners' experiences of ARAL implementation (Eamiguella & Siat, 2025), teachers' experiences and adaptive practices (Batistis & Siat, 2025), and broader implementation and learning-recovery considerations (De Los Santos et al., 2025). Silagan et al. (2025) further examined the program in relation to learners' academic competencies. Taken together, these studies provide emerging evidence that structured ARAL interventions may contribute to learning recovery and that implementation conditions and teacher practices are relevant to program delivery.

Despite this emerging body of literature, an important empirical gap remains. Existing studies have generally examined ARAL outcomes or implementation experiences in particular school and regional contexts, with available evidence including studies from Palawan and Iloilo, while other investigations have focused primarily on learners' experiences, teachers' experiences, or broader program implementation. Less attention has been given to **integrating learner-level changes in performance before and after participation with teachers' firsthand accounts of implementation within the same school context**. Moreover, evidence specifically examining Grades 4–6 learners in the **Division of Bohol** remains limited in the literature reviewed for this study. This gap is significant because learning recovery at the upper-elementary level involves learners with varied levels of reading proficiency, requiring interventions that can respond to differences in comprehension, foundational skills, and readiness for independent learning.

Examining both measurable learner outcomes and teachers' implementation experiences can therefore provide a more contextualized understanding of how learning recovery is experienced at the school level and what conditions may support or constrain its implementation.

The need for such evidence is particularly relevant in Central Visayas. Regional monitoring has identified implementation concerns in learning recovery programs, including limitations in monitoring mechanisms, teacher training, and instructional support (Department of Education Region VII, 2023). These conditions may affect the consistency with which interventions are delivered and the extent to which instructional responses are aligned with learners' needs. Although regional education initiatives emphasize remediation and learning recovery, differences in school contexts, available resources, teacher capacity, and instructional demands may influence how such programs are implemented. Thus, examining ARAL implementation at the school level is necessary to complement broader regional evidence and to determine how learner outcomes correspond with the practical experiences of teachers responsible for delivering the intervention.

Within the Division of Bohol, the implementation of the ARAL Program is intended to address learning gaps and strengthen learners' reading, writing, and comprehension skills. However, the manuscript's reviewed local context indicates concerns regarding the consistency of follow-up and individualized support for Grades 4–6 learners, particularly in circumstances where teachers must manage substantial instructional workloads. Such conditions can make it difficult to provide differentiated instruction and sustained monitoring for learners with diverse reading abilities. The need to examine these circumstances is further supported by the Division of Bohol's emphasis on capacity building for ARAL implementation (Schools Division of Bohol, 2025). Understanding the relationship between learner performance and teachers' implementation experiences can therefore help identify practical considerations that should be addressed when strengthening school-based learning recovery efforts.

The study is further grounded in Mastery Learning Theory (Bloom, 1968), which provides a direct theoretical basis for understanding how structured learning interventions can support improvements in reading performance. The theory assumes that learners can attain intended competencies when provided with appropriate instructional conditions, sufficient learning opportunities, and corrective support. Applied to the ARAL Program, this perspective suggests a sequence in which learners' needs are identified through assessment, instruction is differentiated according to those needs, learners receive repeated opportunities for practice, and corrective feedback is provided to address difficulties before progression toward higher levels of mastery. This framework is particularly relevant to reading recovery because learners entering an intervention may differ substantially in their level of comprehension and foundational skills. Rather than treating these differences as fixed limitations, mastery-oriented instruction provides opportunities for learners to receive targeted support and additional practice until they demonstrate improved competency.

Social Learning Theory (Bandura, 1977) provides a complementary perspective by explaining the social and instructional processes through which learning occurs. The theory emphasizes the importance of observation, modeling, interaction, and guided participation in the development of learning behaviors. In the context of ARAL implementation, teachers do not merely deliver instructional materials; they model reading strategies, guide learners through tasks, provide feedback, and create opportunities for learners to observe and practice appropriate

approaches to reading. Teacher support and interaction may therefore influence learner engagement and participation in intervention activities. This perspective is particularly relevant to the qualitative component of the study because teachers' experiences can reveal how they adapt instructional practices, manage competing demands, and respond to learners' diverse needs during implementation. Together, Mastery Learning Theory and Social Learning Theory provide complementary explanations: the former emphasizes the progression toward mastery through differentiated instruction, practice, and corrective support, while the latter highlights the role of teacher modeling, guided interaction, and learner engagement in the learning process.

At the school level, Sierra Bullones Central Elementary School provides a relevant context for examining these issues. The school implements the ARAL Program through structured remediation sessions, pull-out classes, and guided learning activities for Grades 4–6 learners identified as requiring additional academic support. Learners' progress is monitored through diagnostic and post-assessment procedures, while teachers facilitate interventions using available instructional materials and differentiated approaches. However, the presence of an intervention does not by itself establish how learners' performance changes or how implementation conditions affect teachers' capacity to deliver the program. Examining learner performance before and after participation, alongside teachers' accounts of implementation challenges, can provide evidence that is both outcome-oriented and context-sensitive.

Accordingly, this study examines the Academic Recovery and Accessible Learning (ARAL) Program among Grades 4–6 learners at Sierra Bullones Central Elementary School, Division of Bohol, during the school year 2025–2026. Specifically, it determines changes in learners' reading comprehension performance before and after participation in the program and examines teachers' experiences and challenges in its implementation. By integrating quantitative evidence of learner performance with qualitative accounts of implementation, the study addresses the identified empirical gap and provides a school-level perspective on learning recovery in the Bohol context. The findings are intended to serve as a basis for an enhanced intervention plan that strengthens differentiated instruction, teacher support, instructional resources, monitoring, and other conditions necessary to sustain learners' progress in reading comprehension and foundational academic skills.

Research Questions

This research determined the role of the ARAL Program in bridging learning gaps and supporting recovery in reading comprehension among Grades 4–6 learners at Sierra Bullones Central Elementary School, Division of Bohol, during the school year 2025–2026, as a basis for an enhanced intervention plan to strengthen its implementation further and improve learners' academic performance.

Specifically, this study sought to answer the following questions:

1. What is the academic performance of the learners in reading comprehension based on their scores in:
 - 1.1 Diagnostic test, and
 - 1.2 Post-test?
2. Is there a significant difference in the academic performance before and after participation in the ARAL Program?

3. What are the issues and concerns encountered in the implementation of the ARAL Program?
4. Based on the findings, what enhanced intervention plan for learners' academic improvement and learning recovery in reading comprehension can be facilitated?

Methodology

Design

This study employed an embedded mixed-methods design to examine the role of the Academic Recovery and Accessible Learning (ARAL) Program in bridging learning gaps and supporting learner recovery among Grades 4–6 learners at Sierra Bullones Central Elementary School, Division of Bohol, during the school year 2025–2026.

An experimental single-group pretest-posttest design component examined changes in learners' reading comprehension, while qualitative data from teacher interviews explained contextual factors affecting program implementation. The two strands were integrated during interpretation by comparing learner outcome patterns with teachers' accounts of instructional time, resources, and professional support.

By embedding qualitative data within the quantitative framework, the study provided a more comprehensive understanding of the program, highlighting both measurable gains in academic performance and contextual factors influencing implementation fidelity, teacher practices, and learner engagement. This design ensured that the findings could inform actionable recommendations to improve the ARAL Program's impact on learners' academic achievement and overall educational outcomes.

Locale

The study was carried out at Sierra Bullones Central Elementary School, a primary public educational establishment situated in the Division of Bohol, Philippines. Being a central municipal primary school, it caters to a varied student body from neighboring barangays and oversees an intermediate division consisting of students in Grades 4 to 6. To address educational disparities at regional and national levels, the institution formally introduced the Academic Recovery and Accessible Learning (ARAL) Program. The school put the program into practice by organizing structured remedial classes, separate instructional sessions, and supervised educational tasks customized to assist students encountering difficulties in Grades 4 to 6. Teachers involved in the program were given specific timetables to carry out ARAL sessions, incorporating personalized and diverse learning resources alongside diagnostic assessments and follow-up evaluation tools at the school level.

Before the implementation of the intervention, the initial literacy assessment of the school revealed notable weaknesses among middle-level students, especially in handling reading comprehension in various subjects like English, Science, and Filipino. The prevailing circumstances at the school, marked by a large number of students facing reading difficulties, teachers burdened with heavy workloads, and the use of organized remedial measures, positioned Sierra Bullones Central Elementary School as a suitable location for investigating the practical application and impact of the ARAL Program.

Respondents and Key Informants

The study respondents comprised 10 teachers and 50 learners from Sierra Bullones Central Elementary School, for a total of 60 participants. The researchers selected respondents using purposive sampling, choosing participants based on their direct involvement in implementing the ARAL Program. The teachers included in the study handled Grades 4 to 6 and actively facilitated ARAL interventions. The study identified 50 learners as program beneficiaries who participated in the remediation sessions. The qualitative component involved 10 teachers who directly implemented or supported the ARAL Program. This sampling approach ensured that the respondents had the relevant experiences and insights needed to address the study's objectives.

Instrument

The instrument used in this study was adopted from the Academic Recovery and Accessible Learning (ARAL) Program guidelines and standardized assessment tools of the Department of Education (DepEd, 2025), thereby ensuring its validity and eliminating the need for pilot testing. The research instrument consisted of a structured questionnaire designed to gather quantitative and qualitative data aligned with the study's objectives. It was divided into two parts. Part I measured learners' academic performance based on their scores in the diagnostic test and post-test, which were used to determine their level of learning before and after participation in the ARAL Program. Part II consisted of an open-ended question that elicited responses through interviews regarding the issues and concerns encountered in implementing the ARAL Program. This allowed respondents to share their experiences and insights, which served as a basis for developing an enhanced intervention plan. Using an adopted, standardized instrument ensured the reliability and appropriateness of the data collected.

Data Gathering Procedure

The study's data gathering was divided into three parts:

Preliminary Stage. In the preliminary stage, the researchers used an adopted questionnaire and standardized assessment tools from the Academic Recovery and Accessible Learning (ARAL) Program to gather data on learners' academic performance and the program's implementation. Because DepEd had already adopted and standardized the instrument, the researchers did not need to conduct validation or pilot testing. The researchers used the questionnaire and assessment tools directly to ensure reliability and alignment with the study's objectives. The researchers identified respondents through purposive sampling, including teachers handling Grades 4–6 and learners who were beneficiaries of the ARAL Program. The researchers submitted a transmittal letter requesting permission to conduct the study to the Schools Division Superintendent, followed by the Public Schools District Supervisor and the School Head of Sierra Bullones Central Elementary School. After approval, the researchers informed the respondents of the study's purpose and asked for their consent before participation.

Data Gathering Stage. During the data gathering stage, the researchers administered the instruments to all identified respondents. The researchers first conducted a diagnostic test to determine learners' baseline performance, followed by the implementation of the ARAL Program. After the intervention period, the researchers administered a post-test to measure improvements in learners' academic performance. Simultaneously, the researchers distributed questionnaires to the

learners to gather demographic data and collect qualitative responses from the teachers on the issues and concerns encountered during the implementation of the ARAL Program. The researchers oriented respondents on the purpose of the study and encouraged them to provide honest and accurate responses.

Post-Data Gathering Stage. After data collection, the researchers carefully compiled, organized, and tabulated all responses. The researchers analyzed quantitative data using descriptive statistics, such as frequency, percentage, mean, and standard deviation, to describe respondents' profiles and learners' academic performance. To determine whether significant improvements occurred between the diagnostic and post-test scores, the researchers conducted a paired t-test at a specified level of significance.

Meanwhile, qualitative data on the issues and concerns encountered in the implementation of the ARAL Program were analyzed using thematic analysis following the six-phase framework of Braun and Clarke (2006), which included: familiarization with the data, coding, generating themes, reviewing themes, defining and naming themes, and presenting the findings.

Finally, the results were interpreted in relation to the study objectives and supported with relevant literature. These findings served as a foundation for developing an enhanced intervention plan to strengthen implementation of the ARAL Program and improve learners' academic performance and learning recovery.

Data Analysis

The data in this study were analyzed using the following statistical methods to address the research problems:

Mean and Standard Deviation. These were used to determine the learners' academic performance before and after participation in the ARAL Program. The mean provided the average scores for each measure, including diagnostic test scores and post-test scores, while the standard deviation indicated the variability of scores around the mean.

Paired t-test. This was used to examine significant differences in learners' academic performance before and after participation in the ARAL Program. The test compared mean diagnostic and post-test scores to determine whether the difference was statistically significant.

Thematic Analysis. The study analyzed qualitative data on issues and concerns encountered during ARAL Program implementation using thematic analysis, following Braun and Clarke's (2006) six-phase framework. This included familiarizing the researcher with the data, coding, generating themes, reviewing themes, defining and naming themes, and presenting the findings. The analysis identified patterns and key concerns that informed recommendations for enhancing the ARAL Program.

The quantitative data were analyzed using descriptive and inferential statistical procedures appropriate to the objectives of the study. Mean and standard deviation were used to summarize learners' diagnostic and post-test scores. Frequencies and percentages were used to describe the distribution of learners across the Frustration, Instructional, and Independent reading levels.

To determine whether there was a statistically significant difference between learners' diagnostic and post-test scores, a paired-samples t-test was employed because the same 50 learners were assessed at two measurement points. The analysis was based on the individual score differences between the post-test and diagnostic test for each learner. The mean difference and

standard deviation of the differences were computed, together with the corresponding t-value, degrees of freedom, p-value, and 95% confidence interval (CI) for the mean difference. Statistical significance was evaluated at the 0.05 level.

The magnitude of the observed change was further examined using Cohen's d for paired samples, computed by dividing the mean of the paired differences by the standard deviation of those differences. This effect-size measure was included to complement the significance test and provide an indication of the magnitude of the change in learners' scores.

Ethical Considerations

This study strictly adhered to established ethical principles governing research involving human participants, particularly in studies involving children and education. Prior to data collection, the researchers secured the necessary permission and approval from appropriate school authorities. Because the participants included Grades 4–6 learners who are minors, the researchers obtained informed consent from their parents or legal guardians, provided the learners with age-appropriate information about the study, and sought their assent. Participation was entirely voluntary, and no learner or teacher was forced or pressured to participate. The participants and their parents or guardians were informed about the study's purpose, procedures, expected duration, potential risks and benefits, confidentiality measures, and their right to decline participation or withdraw at any time without penalty or adverse consequences. Participation or non-participation did not affect learners' grades, access to the ARAL Program, academic standing, or their relationship with teachers and the school.

The researchers ensured the privacy, confidentiality, and anonymity of all participants throughout the study. The demographic information of teachers and learners, as well as the learners' diagnostic and post-test scores in reading comprehension, were treated as confidential research data. No names or other unnecessary personally identifiable information were included in the research instruments, data files, or presentation of results. Participant codes were used when necessary to organize data and compare pre-test and post-test performance. The study also reported issues and concerns encountered in implementing the ARAL Program objectively and in aggregate form to avoid identifying individual teachers, learners, or school personnel. The researchers securely stored completed questionnaires, test results, and electronic datasets on password-protected devices, accessible only to the researchers. All information gathered was used solely for academic and research purposes and was not disclosed to unauthorized individuals.

Furthermore, the study observed the principles of respect for persons, beneficence, non-maleficence, and justice, particularly because the research involved young learners. Participants were treated with dignity and fairness, and the research procedures were designed to involve no more than minimal risk. The diagnostic and post-test activities were administered in a way that avoided unnecessary pressure, embarrassment, or discrimination based on learners' reading performance. The researchers ensured that participation did not interfere with the learners' regular educational opportunities or the proper implementation of the ARAL Program. The researchers selected participants according to clearly established criteria and treated them equally throughout the study. The researchers likewise complied with the provisions of the Data Privacy Act of 2012 (Republic Act No. 10173) by implementing appropriate measures to safeguard the confidentiality, integrity, and security of personal and research data collected from teachers and learners. The

findings were presented honestly and objectively and used as the basis for developing an enhanced intervention plan to improve learners' reading comprehension and support the continued implementation of the ARAL Program.

Results and Discussions

Table 1.

Learners' Reading Performance Based on Diagnostic and Post-Test Scores

Learner	Diagnostic Test Score (/100)	Diagnostic Level
1	55	Frustration
2	62	Instructional
3	48	Frustration
4	70	Instructional
5	80	Independent
6	59	Instructional
7	66	Instructional
8	50	Frustration
9	77	Instructional
10	82	Independent
11	45	Frustration
12	60	Instructional
13	73	Instructional
14	55	Frustration
15	68	Instructional
16	80	Independent
17	62	Instructional
18	58	Frustration
19	71	Instructional
20	49	Frustration
21	64	Instructional
22	78	Instructional
23	53	Frustration
24	69	Instructional
25	85	Independent
26	61	Instructional
27	56	Frustration
28	74	Instructional
29	79	Instructional

30	47	Frustration
31	60	Instructional
32	82	Independent
33	50	Frustration
34	67	Instructional
35	73	Instructional
36	58	Frustration
37	66	Instructional
38	81	Independent
39	55	Frustration
40	72	Instructional
41	63	Instructional
42	49	Frustration
43	76	Instructional
44	58	Frustration
45	84	Independent
46	61	Instructional
47	70	Instructional
48	53	Frustration
49	65	Instructional
50	77	Instructional

Table 1 presents the reading performance of 50 learners based on their diagnostic test scores. The test scores show that 16% (8 learners) are at the Independent Level, 54% (27 learners) are at the Instructional Level, and 30% (15 learners) are at the Frustration Level. This distribution shows that most learners have basic reading skills but still need guidance and structured instruction to improve comprehension and mastery. Meanwhile, a significant portion of the class struggles with reading, indicating the need for immediate remedial interventions and support. At the same time, the few learners at the Independent Level can receive enrichment activities to develop their abilities further.

Thus, although most learners possessed some functional reading skills, nearly one-third experienced substantial difficulty in reading. The distribution indicates that the learners entered the program with different levels of instructional need rather than a uniform level of reading proficiency. In particular, the presence of learners at the Frustration Level suggests that some required more intensive and closely targeted support than those already functioning at the Instructional or Independent Levels.

The distribution has an important instructional implication. The predominance of Instructional-level learners suggests that the central challenge was not simply initiating reading development but moving learners from guided performance toward greater independence. At the same time, the Frustration-level group required foundational remediation before more advanced comprehension could reasonably be expected. This variation helps explain why a uniform instructional approach may be insufficient in a learning-recovery setting. Instead, the diagnostic

results point to the importance of matching the intensity and type of intervention to learners' existing levels of reading performance.

Several studies emphasize the effectiveness of structured programs in improving learners' reading performance. Teacher scaffolding and supportive learning environments have been identified as significant factors in enhancing learners' literacy development by providing structured guidance and appropriate instructional support (Eamiguela & Siat, 2025). Likewise, ARAL-based interventions have demonstrated effectiveness in strengthening learners' foundational competencies and facilitating the attainment of higher levels of mastery (Silagan et al., 2025). Furthermore, collaborative and guided instructional approaches have been shown to improve program outcomes and increase learner engagement (De Los Santos et al., 2025). Taken together, these findings provide empirical support for the ARAL Program's effectiveness in promoting learners' reading comprehension and academic performance through structured instruction, targeted intervention, sustained teacher support, and opportunities for learners to develop and demonstrate mastery of essential competencies progressively.

The findings can also be understood through Mastery Learning Theory (Bloom, 1968). The theory is relevant not simply because learners improved, but because the initial distribution indicates that learners were at different points in their progression toward mastery. A mastery-oriented intervention provides opportunities for learners who have not yet demonstrated a competency to receive additional instruction and practice before being expected to perform independently. In this context, the diagnostic results establish the baseline from which such progression can be monitored. The theory therefore provides a useful explanation for the program's emphasis on targeted instruction and continued opportunities to practice essential reading competencies.

Table 2.

Learners' Reading Performance Based on Post-Test Scores

Learner	Post-Test Score (/100)	Post-Test Level
1	72	Instructional
2	78	Instructional
3	65	Instructional
4	82	Independent
5	88	Independent
6	75	Instructional
7	80	Independent
8	68	Instructional
9	85	Independent
10	90	Independent
11	60	Instructional
12	78	Instructional
13	81	Independent
14	70	Instructional
15	83	Independent

16	92	Independent
17	79	Instructional
18	65	Instructional
19	84	Independent
20	66	Instructional
21	80	Independent
22	88	Independent
23	70	Instructional
24	82	Independent
25	95	Independent
26	77	Instructional
27	70	Instructional
28	86	Independent
29	88	Independent
30	63	Instructional
31	78	Instructional
32	92	Independent
33	68	Instructional
34	81	Independent
35	87	Independent
36	70	Instructional
37	83	Independent
38	90	Independent
39	69	Instructional
40	85	Independent
41	79	Instructional
42	65	Instructional
43	87	Independent
44	72	Instructional
45	93	Independent
46	80	Independent
47	83	Independent
48	68	Instructional
49	82	Independent
50	89	Independent

Table 2 shows the reading performance of 50 learners based on their post-test scores, where 27 learners, or 56%, reached the Independent Level, and 22 learners, or 44%, remained at the Instructional Level, with no learner classified under the Frustration Level. Compared with the diagnostic distribution, the most notable change was the disappearance of the Frustration-level category and the increase in learners reaching independent reading performance. This result indicates a significant improvement in overall reading proficiency compared to the diagnostic test,

as more than half of the class can now read and comprehend texts independently. At the same time, the rest have developed enough skills to learn effectively with guidance.

The significance of this finding lies not only in the increase in the Independent category but also in the movement away from the lowest level of performance. The post-test distribution suggests that learners who initially required intensive support were no longer classified at the Frustration Level at the time of the post-test. However, the fact that 22 learners remained at the Instructional Level is equally important. The program therefore appears to have produced progress that was not uniform across all learners. Some learners reached a level of greater independence, whereas others continued to require guided instruction. This pattern cautions against interpreting learning recovery solely in terms of the proportion of learners who reached the highest category. Sustained support remains necessary for learners whose performance has improved but has not yet reached independent mastery.

Several studies emphasize the effectiveness of structured programs in improving learners' reading performance. The Academic Recovery and Accessible Learning (ARAL) Program is a Philippine Department of Education initiative designed to address pandemic-related learning loss through targeted literacy and numeracy interventions for struggling learners (Briones, 2026). Similarly, the ARAL Program was found effective in enhancing the reading performance of struggling Grade IV learners in a central school in the province of Palawan by improving their word recognition, fluency, and reading comprehension (Buahe, 2026). The similarity may reflect a common feature of the interventions: both involve targeted support for learners with identified reading difficulties. However, the present study contributes a different contextual perspective by examining learners across Grades 4–6 within a single school in Bohol and by examining teachers' implementation experiences alongside learner outcomes. Thus, its contribution is not simply another demonstration of improvement but an examination of how measurable learner changes coexist with the practical conditions under which ARAL is delivered. Thus, the ARAL Program may be considered a viable intervention for addressing reading difficulties and strengthening foundational literacy skills among elementary learners.

The movement toward higher reading levels may plausibly be related to repeated opportunities for guided practice, corrective support, and differentiated instruction, which are consistent with Mastery Learning Theory. Social Learning Theory (Bandura, 1977) also offers a complementary explanation because teachers' modeling, guidance, and interaction may help learners acquire and apply appropriate reading behaviors. Nevertheless, these theoretical explanations should be treated as interpretive rather than causal conclusions. Other factors, including normal academic development, exposure to regular classroom instruction, familiarity with the assessment, and other learning experiences during the intervention period, may also have contributed to the observed changes.

Table 3.

Summary of Learners' Reading Comprehension Levels

Reading	Diagnostic Test	Percentage	Post-Test	Percentage
Comprehension Level	(n=50)	(%)	(n=50)	(%)
Independent Level	8	16%	22	44%
Instructional Level	27	54%	28	56%
Frustration Level	15	30%	0	0%
Total	50	100%	50	100%

Table 3 summarizes learners' reading comprehension levels before and after implementing the ARAL Program. In the diagnostic test, 8 learners (16%) were at the Independent Level, 27 learners (54%) were at the Instructional Level, and 15 learners (30%) were at the Frustration Level. Following the ARAL Program, 22 learners (44%) reached the Independent Level, 28 learners (56%) were at the Instructional Level, and only none for the Frustration Level. These results demonstrate a significant improvement in learners' reading comprehension after participating in the ARAL Program.

The most meaningful pattern in these results is the simultaneous increase in Independent-level learners and decrease in Frustration-level learners. The Independent group increased by 28 percentage points, while the Frustration group decreased by 18 percentage points. This indicates that the overall distribution shifted toward higher reading comprehension performance. At the same time, the persistence of seven learners at the Frustration Level demonstrates that improvement was not experienced equally by all participants. This remaining group is analytically important because it indicates that participation in a learning-recovery program does not necessarily result in complete remediation within a single intervention period.

Several studies emphasize the impact of structured interventions on improving learners' reading comprehension. A study conducted in an elementary school in the province of Iloilo concluded that the ARAL Program effectively improves learners' reading comprehension and proficiency and supports their progress toward expected literacy levels (Arroyo et al., 2026). Continuous program implementation, enhanced instructional support, and better implementation conditions are essential to foster greater literacy improvement among struggling readers (MAEd et al., 2025).

Table 4.

Significant Difference in Academic Performance Before and After ARAL Program

Test	Mean	Standard Deviation	t-value	df	p-value
Diagnostic Test	65.12	11.18			
Post-Test	78.82	9.05	29.50	49	<0.001

Table 4 provides statistical evidence of change in learners' scores between the diagnostic and post-test assessments. Based on the verified individual scores presented in Tables 1 and 2, the diagnostic mean was 65.12 (SD = 11.18), while the post-test mean was 78.82 (SD = 9.05), representing a mean increase of 13.70 points. The paired-samples t-test indicated that this difference was statistically significant, $t(49) = 29.50$, $p < .001$. The 95% confidence interval for the mean difference was (12.77, 14.63), and the corresponding paired-samples Cohen's d was 4.17.

The statistical result establishes that the improvement in scores was unlikely to be attributable to random sampling variation within the paired observations. More importantly, the 13.70-point increase indicates a meaningful change in the observed level of performance, while the large effect size indicates that the difference between the two testing occasions was substantial relative to the variability of the individual score changes. Thus, the quantitative evidence provides stronger support for the pattern already visible in the distribution of reading levels.

The magnitude of the improvement may be interpreted in light of the structure of learning-recovery interventions. Learners entered the program with documented differences in reading performance, and the intervention provided an opportunity for targeted instruction and additional practice. These conditions are compatible with Mastery Learning Theory, in which learners are given opportunities to address deficiencies before progressing toward mastery. The findings are also broadly consistent with previous ARAL studies reporting improved reading outcomes (Buahe, 2026; Arroyo et al., 2026).

However, the statistical significance and large effect size should not be interpreted independently of the study design. Because the study used a single-group pretest-posttest design without a comparison group, the observed change cannot be attributed exclusively to ARAL. Alternative explanations include maturation, concurrent classroom instruction, additional exposure to reading activities, and possible familiarity with the assessment. Consequently, the strongest conclusion supported by the data is that learners demonstrated substantial improvement in reading performance following participation in the ARAL Program, rather than that ARAL alone caused the improvement.

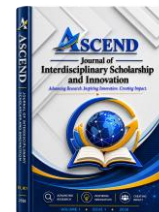


Table 5.

Teachers' Experiences in Implementing the ARAL Program

Research Question	Main Theme	Sub-Themes
What are the issues and concerns encountered in the implementation of the ARAL Program?	Challenges in ARAL Implementation	1. Negotiating competing instructional demands 2. Teacher improvisation as a response to resource constraints 3. Developing teacher capacity for differentiated learning recovery

Table 5 presents teachers' responses on the issues and concerns encountered in implementing the ARAL Program at Sierra Bullones Central Elementary School. Using Braun and Clarke's (2006) six-phase thematic analysis, the data were examined through systematic steps: reading and rereading Interviews to become familiar with teachers' experiences, generating initial codes from significant statements, grouping codes into potential themes, reviewing and refining the themes, defining and naming the main theme and sub-themes, and compiling the findings into a coherent narrative. Through this process, the main theme "Challenges in ARAL Implementation" emerged. Under this theme, the sub-themes included negotiating competing instructional demands, teacher improvisation in response to resource constraints, and developing teacher capacity for differentiated learning recovery. These experiences reflect the practical difficulties teachers encountered in facilitating learning recovery through the ARAL Program and highlight the support and resources needed to strengthen implementation.

Negotiating Competing Instructional Demands. One major challenge in implementing the ARAL Program is the instructional demands, as teachers must manage regular class schedules alongside ARAL sessions. Teachers reported that balancing the ARAL activities with their daily lessons often made it difficult to cover all learning objectives, plan interventions, and provide individualized support to learners. Despite these challenges, teachers tried to maximize available time and adjust their strategies to meet students' needs. This is shown in the statements of the participants:

"Managing the ARAL sessions alongside my regular classes is challenging, but I try to prioritize the most critical learning skills during the limited time." Teacher 2

"Sometimes I have to rush through ARAL activities because of our packed daily schedule, which makes it hard to give students the guidance they need." Teacher 5

"I adjust my lesson plans to fit both the regular curriculum and ARAL activities, but the limited time still affects how much practice students get." Teacher 9

Teachers have expressed challenges in managing their regular class schedules in conjunction with ARAL sessions, leading to a notable structural strain. For instance, Teacher 2 acknowledged the difficulty of balancing ARAL sessions with regular classes, emphasizing the need to focus on essential learning skills within the limited timeframe available. This example

demonstrates how conflicting classroom requirements restrict opportunities for personalized intervention, highlighting a systemic conflict between standard teaching duties and additional learning recovery initiatives. Additionally, Teacher 5 pointed out that busy daily timetables compel teachers to expedite remedial efforts, while Teacher 9 described the continuous adjustments needed in lesson planning. These viewpoints collectively suggest that the scarcity of instructional time presents not just a scheduling inconvenience, but a practical obstacle demanding adaptable teaching approaches and alignment of institutional schedules to uphold the effectiveness of remedial interventions.

The findings implied that limited instructional time requires flexible, adaptive teaching strategies and effective time management to ensure learners still benefit from the ARAL Program. This suggests that teachers' ability to model adaptive behaviors, provide guided practice, and prioritize essential skills can enhance learner outcomes despite time constraints. This highlights the need for structured schedules, targeted interventions, and professional support to help teachers optimize the limited instructional time for maximum learning impact.

Several studies emphasize the importance of structured guidance, teacher support, and adaptive strategies in ARAL implementation. Eamiguela and Siat (2025) highlighted that supportive learning environments and teacher scaffolding are crucial in helping learners progress even when time is limited. Silagan et al. (2025) noted that program design, contextual factors, and teacher strategies influence the effectiveness of ARAL interventions. De Los Santos et al. (2025) further emphasized that collaborative approaches and shared planning allow teachers to balance instructional demands while maintaining program quality. Collectively, these studies reinforce that flexibility, prioritization, and structured support are key in overcoming time constraints and ensuring effective implementation of the ARAL Program.

Teacher Improvisation as a Response to Resource Constraints. Another challenge encountered in implementing the ARAL Program is the lack of adequate learning materials and resources. Teachers reported that limited access to textbooks, reading materials, and instructional tools sometimes hindered their ability to engage learners and implement activities effectively. They highlighted the need for more varied and sufficient resources to support different learning levels. This is reflected in the statements of the participants:

"Sometimes we do not have enough reading materials for all learners, so I have to create extra worksheets or activities to keep them engaged." Teacher 1

"Limited instructional resources make it hard to conduct ARAL activities as planned, especially when learners need individualized support." Teacher 4

"I try to supplement the program with materials I prepare myself, but having more official resources would greatly improve the learning experience." Teacher 7

The lack of educational materials compels teachers to heavily depend on their own ingenuity to sustain student involvement. Teacher 1 illustrated this by stating, "At times, we lack adequate reading materials for all students, prompting me to develop supplementary worksheets or tasks to maintain their engagement." This dependency on teacher-generated materials underscores how limitations in resources transfer the responsibility of preparation onto educators, depleting their time and efforts. While Teacher 4 pointed out that restricted teaching aids impede personalized assistance, and Teacher 7 stressed that official materials would significantly enhance results, these accounts collectively expose a disconnect between program guidelines and material

provisions. Overcoming these limitations necessitates strategic resource management and comprehensive institutional backing rather than solely relying on individual teacher innovation.

The findings implied that resource constraints require strategic resource planning, innovative teaching approaches, and teacher initiative to maintain instructional quality. This suggests that adequate materials and structured practice opportunities enhance mastery, while teachers' modeling of resourcefulness and adaptive strategies can promote continued engagement and effective learning outcomes. This highlights the need for schools and policymakers to ensure access to adequate instructional resources to support differentiated learning and maximize the ARAL Program's impact.

Several studies have emphasized the importance of adequate materials and structured support in ARAL implementation. Silagan et al. (2025) noted that contextual variables such as resource availability influence program outcomes, suggesting that sufficient learning tools are crucial for effective implementation. Eamiguela and Siat (2025) highlighted that teacher scaffolding and supplementary materials help sustain learners' engagement and literacy development, even when official resources are limited. Batistis and Siat (2025) reported that teachers often employ adaptive strategies, including creating contextualized materials, to overcome resource limitations, reinforcing the role of teacher initiative and creativity in ensuring the success of ARAL interventions.

Developing Teacher Capacity for Differentiated Learning Recovery. Teachers also highlighted the need for more training and professional support to implement the ARAL Program effectively. They shared that while they understand the program's goals, guidance on strategies, assessment tools, and differentiated instruction would help them better address learners' needs. This is evident in the statements of the participants:

"I feel that attending more training sessions on ARAL strategies would help me support learners more effectively." Teacher 2

"Additional workshops on assessing reading comprehension and using ARAL materials would really improve how we implement the program." Teacher 5

"Having more support from mentors or coordinators would give me confidence in handling diverse learners and using the program successfully." Teacher 9

Teachers have clearly indicated the necessity for continuous professional development to proficiently address diverse student requirements within the intervention framework. Illustrating this deficiency, Teacher 2 conveyed, "I believe that participating in additional training sessions on ARAL strategies would enhance my ability to assist learners more efficiently." This observation indicates that grasping the overall objectives of a program is inadequate without hands-on, continuous instruction on specialized evaluation tools and customized teaching methods. Similarly, the appeals made by Teacher 5 for assessment seminars and by Teacher 9 for mentorship organization emphasize that educator assurance is directly linked to well-structured professional support mechanisms. Hence, establishing targeted mentoring programs and regular Learning Action Cell (LAC) meetings is crucial for optimizing the lasting effects of educational recovery efforts.

The findings implied that continuous professional development and structured support are essential for teachers to maximize the ARAL Program. This suggests that teachers' mastery of instructional strategies and assessment practices can be enhanced through repeated training,

mentoring, and observation of exemplary practices. Stronger teacher support systems help educators differentiate instruction, monitor learner progress, and improve reading outcomes, underscoring the importance of sustained training and guidance.

Several studies underscore the significance of training and professional support in ARAL implementation. Silagan et al. (2025) emphasized that teacher capacity and intervention design are critical factors influencing program outcomes, highlighting the need for ongoing professional development. Eamiguela and Siat (2025) reported that structured guidance, scaffolding, and mentoring improve teachers' confidence and effectiveness in implementing ARAL strategies. Batistis and Siat (2025) also noted that adaptive teaching strategies, informed by professional learning and collaborative support, are crucial in addressing challenges such as diverse learner needs and limited resources, reinforcing the role of continuous training in program success.

Table 6.

Mixed-Methods Integration of Quantitative and Qualitative Findings

Quantitative Finding	Qualitative Finding	Integrated Interpretation (Mixed-Methods Inference)
Post-test mean (74.8) was significantly higher than diagnostic mean (63.4), $t(49) = 7.12, p < 0.001$	Teachers reported implementing targeted remediation sessions and prioritizing critical literacy skills despite a packed schedule.	The statistical improvements confirm that organized, focused reading interventions are successful in promoting academic progress and guiding students towards achieving expertise.
23 learners (46% post-test) remained at the Instructional Level, and 7 learners (14% post-test) remained at the Frustration Level.	Teachers cited <i>negotiating competing instructional demands</i> and having to rush through ARAL activities due to packed daily schedules.	The limited progress in academic performance observed in the group of struggling readers can be partly attributed to insufficient teaching hours, indicating the necessity for longer and more focused instructional sessions.
Marked shift from 16 Frustration-level learners down to 7, despite baseline hurdles	Teachers engaged in <i>teacher improvisation</i> , creating extra worksheets and self-made materials to counter a lack of official resources.	The resourcefulness of teachers and their ability to adapt materials helped overcome limitations in resources, which played a key role in enabling students to progress beyond the frustration stage successfully.

Conclusion

This research evaluated the execution and efficiency of the Academic Recovery and Accessible Learning (ARAL) Program for students in Grades 4 to 6 at Sierra Bullones Central Elementary School. The results indicate significant improvements in the reading comprehension abilities of students, indicating a noticeable progression from initial assessment scores to more advanced instructional and self-sufficient levels. Additionally, statistical analysis using the paired-sample t-test validated the significance of this enhancement in academic achievement. Nevertheless, qualitative feedback from interviews with educators uncovered ongoing obstacles in the program's implementation, particularly related to conflicting educational requirements, limited availability of time, resources, and materials, and a pressing need for further training in tailored teaching methods.

Hence, enhancing the continuous execution of the ARAL Program necessitates safeguarded teaching periods, sufficient reading materials, specific teacher training, and structured advancement tracking. It is crucial to note that due to the utilization of a single-group pretest-posttest methodology in this research, lacking a control group, the noted enhancements cannot be conclusively attributed solely to the ARAL Program. Consequently, although the program represents a valuable and encouraging measure for educational recuperation, further studies employing stricter comparative frameworks are essential to ascertain direct causation.

Limitations of the Study

The study offers valuable insights into the execution and effectiveness of the Academic Recovery and Accessible Learning (ARAL) Program; however, it is essential to recognize several constraints. Initially, the research was carried out solely at a singular educational institution, Sierra Bullones Central Elementary School, thus the outcomes may not be universally applicable to other educational institutions in different sectors or regions with diverse demographic and operational circumstances. Secondly, the study encompassed a relatively limited number of participants, comprising 50 students and 10 educators, which is adequate for a localized evaluation but necessitates larger participant groups for broader generalizations. Thirdly, the utilization of a single-group pretest-posttest configuration without a control or comparison group impedes definitive attribution of the score enhancements exclusively to the ARAL Program, as external factors or natural development effects cannot be entirely excluded. Fourthly, due to the constrained duration of the inquiry, the lasting preservation of advancements in reading comprehension and continuous academic improvement could not be monitored over an extended span. Additionally, even though the diagnostic and post-assessment tools were in line with official Department of Education standards, potential disparities in the psychometric consistency of these evaluation instruments call for cautious interpretation of score alterations. Lastly, the qualitative data heavily relied on teacher interviews, introducing the potential for self-report bias, as educators' narratives might be influenced by social desirability or professional expectations concerning program accomplishments.

Recommendations

The study's results on the execution and efficiency of the Academic Recovery and Accessible Learning (ARAL) Program suggest specific suggestions for educational stakeholders. These suggestions target the enhancement of operational processes, improvement of teaching methods, and advancement of future research areas. Ultimately, incorporating these actions will support enduring learning recovery and enhance reading skills in primary school students.

For school administrators, it is recommended to create secure, consistent, and allocated ARAL scheduling blocks that reduce clashes with standard classroom hours. This guarantees that educators are given sufficient time to provide specific reading interventions without the need to hurry through their daily teaching. Implementing these structural changes will foster a more encouraging setting for both teachers and students who are facing challenges in reading.

For educators, it is advisable for them to enhance the implementation of varied reading tasks customized based on students' diagnostic outcomes and reading proficiencies. Meeting the unique requirements of learners classified into Frustration, Instructional, and Independent levels will enhance personalized advancement. The continual use of these approaches guarantees that all students are effectively supported throughout the remedial process.

For schools, it is advisable to establish a thorough school-based repository of resources to aid continuous literacy efforts. This collection should encompass graded reading materials, exercises to enhance understanding, vocabulary tasks, materials for practical learning, and assessments for monitoring progress. Furnishing these resources will address shortages in materials and lessen the need for teachers to rely heavily on spontaneous solutions.

For teacher skill development, it is recommended that school administrators organize specific training initiatives and Learning Action Cell (LAC) meetings. These programs should prioritize topics such as reading evaluation, personalized teaching methods, remedial strategies, formative assessment methodologies, and intervention strategies. Strengthening teachers' skills in these areas significantly contributes to improved teaching quality during educational sessions.

For effective program monitoring, educational institutions should establish regular and ongoing progress assessment procedures throughout the duration of the intervention process. Depending only on critical diagnostic evaluations and final assessments restricts the capacity to monitor student progress in a dynamic manner. Consistent monitoring allows for immediate modifications to student assistance and program implementation.

Finally, future research should expand its inquiries by using more extensive sample sizes and incorporating multiple school environments. Including control or comparative groups can aid in establishing more robust causal connections concerning the program's influence. Furthermore, forthcoming research should employ longitudinal methodologies and standardized or psychometrically similar evaluation tools to monitor prolonged retention effectively.

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