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Research Article

Effectiveness of a Repetitive ReadCycle Module with Audio-Enhanced Materials in Improving the Reading Fluency of Alternative Learning System (ALS) Learners

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Abstract. This study aimed to develop and evaluate the Repetitive ReadCycle Module with Audio-Enhanced Materials as an instructional resource to support the reading fluency of the Alternative Learning System (ALS) learners. The study responded to the need for well-organized, readily available instructional materials to support learners who have difficulty with reading accuracy, rate, and expression. This study used a Research and Development (R&D) design with a quantitative approach and a one-group pretest-posttest design involving twenty (20) Grade 11 and 12 ALS learners from selected ALS learning centers in Makilala East District, North Cotabato. A needs analysis was carried out to identify learners' reading difficulties, learning preferences, and needs for fluency. The findings led to the development of the Repetitive ReadCycle Module with Audio-Enhanced Materials, which was expert-validated and implemented for seven weeks through Model Reading, Choral Reading, Paired Reading, and Independent Reading. Validation reading assessment tools were used to evaluate reading fluency in terms of accuracy, rate, and expression. Descriptive statistics were used to describe pretest and posttest performance, and inferential analysis was used to examine differences between the pretest and posttest. The needs analysis revealed difficulties in pronunciation, decoding, reading rate, and expressive reading, and learners preferred guided instruction, audio support, and independent practice. Descriptive results showed increases in mean scores for reading expression from 2.30 to 3.00, reading rate from 1.75 to 3.40, and reading accuracy from 1.85 to 2.10 over the course of the seven-week intervention. These findings indicate improved reading fluency after implementing the module. The changes observed should be viewed cautiously and not considered proof of a causal effect of the module, given the study design (one-group pretest-posttest design without a control group). The Repetitive ReadCycle Module with Audio-Enhanced Materials can serve as a systematic instructional tool to help ALS learners develop reading fluency.

Keywords: *Alternative Learning System; Audio-enhanced materials; Reading fluency; Reading intervention; ReadCycle module.*

Reading fluency is an essential literacy skill that supports reading comprehension and successful participation in academic and everyday activities. Fluent readers recognize words accurately and automatically, read at a suitable rate of speed, and use expression, phrasing, and intonation that enhance

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meaning. The National Reading Panel (2000) described three sections of reading fluency: accuracy, appropriate rate, and prosody; these components are necessary for successful reading comprehension. Likewise, contemporary research continues to identify reading fluency as an important component of reading development and academic achievement (Duke & Cartwright, 2021; Kim, 2023). Fluency problems may reduce learners' ability to focus on meaning because they spend so much effort on word recognition, decoding, and maintaining an appropriate reading pace.

Reading fluency is important for learners who have faced disruptions or obstacles in formal education. The ALS offers educational opportunities to out-of-school youth and adult learners who may have experienced socioeconomic disadvantages, irregular attendance in formal schooling, or limited access to educational resources. Such circumstances may also contribute to differences in learners' literacy experiences and may require instructional approaches that are flexible, structured, accessible, and responsive to individual learning needs. Hence, improving reading fluency is crucial for ALS learners to not only participate in academic activities but also to access information, communicate effectively, and engage in continuing education and daily activities.

Prior intervention research has identified several instructional strategies that can facilitate reading fluency. Repeated reading allows learners to read the same or similar texts repeatedly to practice word recognition, pace, and accuracy. A systematic literature review by Stevens et al. (2021) also found that repeated and guided oral reading is an effective intervention for helping struggling readers become more fluent. Kim (2023) also identified repeated reading and audio-assisted instruction as effective for reading development because they provide repeated practice and opportunities to listen to and produce fluent reading models. The findings imply that frequent practice, along with opportunities to hear and produce fluent reading, can support the development of essential elements of oral reading fluency.

Guided oral reading, where oral reading is modeled, feedback is given, and practice is guided, can also provide instructional support. These strategies are particularly important for students who have trouble pronouncing words, decoding, pacing themselves, and reading expressively. Reading with fluent audio models can also provide further support, as learners hear correct pronunciation, phrasing, pace, and expression while following the written text. Fiorella and Mayer (2015) have highlighted the potential learning benefits of integrating auditory and visual instructional materials. Clinton-Lisell (2023), in "Reading while listening and its relation to reading-related outcomes: Evidence from a systematic review and meta-analysis," supports the use of audio-assisted materials in reading instruction.

The Philippine context also demonstrates the continuing importance of addressing reading difficulties. Misanes and Pascual (2023) identified reading proficiency problems among Filipino learners using the Philippine Informal Reading Inventory (Phil-IRI). These findings matter in ALS because ALS learners are a heterogeneous group, and their educational experiences and literacy needs may differ from those of learners in a regular school setting. National and educational reports continue to highlight concerns about learning outcomes and literacy development in the Philippines (Department of Education, 2023; World Bank, 2022). However, these broader findings do not, by themselves, establish the specific reading needs of the ALS learners participating in the present study. This makes a learner-centered needs analysis important for identifying the specific fluency difficulties and instructional preferences that should inform intervention development.

Taken together, the existing literature establishes several important points: repeated reading can provide sustained opportunities for fluency practice; guided oral reading can provide instructional modeling and support; and audio-assisted reading can provide learners with additional exposure to fluent pronunciation, pacing, phrasing, and expression. However, the literature reviewed for the present study provides limited evidence concerning a single, structured instructional module that integrates these approaches with independent practice specifically for ALS learners. Research still needs to examine how repeated reading, audio-assisted modeling, guided oral reading, collaborative practice, and independent reading can be organized into a systematic instructional cycle that addresses the three major dimensions of reading fluency—accuracy, reading rate, and expression.

This gap is significant because the instructional needs of ALS learners may not be adequately addressed by simply transferring interventions developed for conventional school populations. ALS learners may have varied

educational backgrounds, reading proficiency levels, learning experiences, and opportunities for literacy practice. Consequently, an instructional resource for this population needs to provide structured guidance while also allowing repeated, independent practice. Identifying learners' actual reading difficulties and learning preferences can therefore provide an empirical basis for developing an intervention that is appropriate to their context. This study addresses this gap by developing and evaluating the Repetitive ReadCycle Module with Audio-Enhanced Materials. The module integrates repeated reading, audio-assisted modeling, guided oral reading, collaborative reading, and independent practice through four structured reading stages: Model Reading, Choral Reading, Paired Reading, and Independent Reading. The module was developed based on a needs analysis of ALS learners' reading difficulties and learning preferences and guided by the ADDIE instructional design model. The module was designed to give learners multiple opportunities to listen to models of fluent reading, practice oral reading with guidance and peers, and then to engage in independent reading while monitoring their fluency development.

Accordingly, this study aimed to develop and evaluate the Repetitive ReadCycle Module with Audio-Enhanced Materials in supporting the reading fluency of Grade 11 and 12 ALS learners. Specifically, it sought to identify learners' reading needs and difficulties; develop and validate an instructional module based on those needs; implement the module over a seven-week period; and examine changes in learners' reading accuracy, reading rate, and expression following the intervention. By addressing the identified instructional gap, the study seeks to contribute evidence on developing structured, context-responsive reading-fluency materials for ALS learners and to provide ALS teachers with an instructional resource that may support systematic fluency practice.

Methodology

Research Design

The study employed the Research and Development (R&D) approach to develop, validate, implement, and evaluate the Repetitive ReadCycle Module with Audio-Enhanced Materials for Grade 11 and 12 Alternative Learning System (ALS) learners. The R&D approach served as the general methodological framework for developing the instructional material, from identifying learners' needs to developing, validating, implementing, and evaluating the module.

The researcher systematically developed the Repetitive ReadCycle Module with Audio-Enhanced Materials using the ADDIE instructional design model (Analysis, Design, Development, Implementation, and Evaluation). In the Analysis phase, the researcher identified learners' reading difficulties and learning preferences. In the Design phase, the researcher wrote the instructional objectives, selected the reading materials, and sequenced the reading activities. The Development phase involved developing, expert-validating, and revising the module, audio-enhanced materials, reading activities, assessment tools, and fluency-tracking materials. The Implementation phase involved implementing the validated module with the ALS learners who participated in the study. During the Evaluation phase, the learners' pretest and posttest reading-fluency performance was examined, and the findings were used to assess changes after the intervention.

The evaluation of the developed module used a one-group pretest-posttest pre-experimental design. The same group of learners was tested before and after implementation of the seven-week Repetitive ReadCycle Module with Audio-Enhanced Materials. The researcher measured reading fluency by assessing reading accuracy, reading rate, and expression. The design permitted the researcher to describe changes in learners' performance from pretest to posttest following exposure to the intervention. However, the design included no comparison or control group; therefore, posttest changes could not be interpreted as conclusive evidence of a causal effect of the module alone.

The analytical approach was quantitative. Descriptive statistics described the numerical data from the pretest and posttest assessments, and the data were analyzed using an appropriate inferential procedure for paired samples. Thus, the methodological components served different roles: R&D as a research design for developing and assessing the instructional material; ADDIE as a systematic module development process; a one-group pretest-posttest pre-experimental design to assess changes in learner performance; and quantitative methods for statistical analysis of the assessment data.

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The participants were twenty (20) Grade 11 and 12 ALS learners enrolled in the participating learning centers in Makilala East District, North Cotabato. The study used complete enumeration, whereby all eligible and enrolled ALS learners in the identified study population were invited to participate. Complete enumeration was considered appropriate because the accessible population was manageable in size. Twenty (20) Grade 11 and 12 ALS learners from three participating schools in Makilala East District, North Cotabato participated. The study used complete enumeration; all eligible learners in the identified study population were included as participants. Of the 20 learners, 7 were from Kisante National High School, 5 from Ricardo L. Ipong National High School, and 8 from Makilala National High School. Thus, the total number of participants was 20. The intervention was implemented for all learners, and no comparison or control group was included. This aligns with the study's one-group pretest-posttest pre-experimental design. Participants had different reading fluency levels as measured by the baseline reading assessment. Eligible participants were Grade 11 or 12 ALS learners enrolled in the participating learning centers who met the study criteria and provided informed consent, with parental consent obtained when applicable.

Research Instrument

The study employed reading assessment instruments designed to measure the three dimensions of reading fluency examined in the study: reading rate, reading accuracy, and reading expression.

Reading Fluency Assessment

The primary reading assessment measured learners' oral reading performance in terms of reading rate, accuracy, and expression. Reading rate was measured using words per minute (WPM), while reading accuracy was determined from the number of errors committed during oral reading. Reading expression was evaluated using criteria reflecting expressive reading performance, including appropriate phrasing, intonation, smoothness, and related indicators of oral reading expression.

The assessment procedures were administered before and after the intervention using comparable reading

assessment procedures. The manuscript reports that the assessment materials aligned with the reading-fluency objectives and underwent content validation before use.

Philippine Informal Reading Inventory (Phil-IRI)

The Philippine Informal Reading Inventory (Phil-IRI) was used as an assessment resource to identify learners' reading levels and baseline reading performance. The manuscript identifies the Phil-IRI as a Department of Education reading assessment tool used to examine oral reading performance and identify learners' reading levels. The Phil-IRI results helped identify learners' reading needs during the Analysis phase of the ADDIE process and informed the development of the instructional materials.

ReadCycle Fluency Tracker

The ReadCycle Fluency Tracker monitored learners' progress during implementation. The tracker included indicators related to pronunciation, pace, expression, confidence, and reading smoothness. It also recorded words per minute, error counts, and reading attempts across the four reading stages: Model Reading, Choral Reading, Paired Reading, and Independent Reading. The tracker was primarily used for monitoring learner progress during the intervention and was not treated as a substitute for the primary pretest-posttest outcome measures.

Reflection Activities

Reflection activities were used to obtain supplementary information regarding learners' participation, engagement, and confidence during the oral reading activities. These responses provided context about learners' experiences during the module's implementation.

Data Gathering Procedure

Data collection followed the ADDIE framework. During the Analysis phase, the researcher secured the necessary approval from the school authorities and conducted a needs assessment using the Phil-IRI and teacher input to identify learners' reading-fluency needs. The results identified difficulties in pronunciation, decoding, reading rate, expression, and other aspects of oral reading performance. During the Design phase, instructional objectives, reading materials, and structured reading activities were formulated based on the identified needs and the ALS curriculum. The instructional sequence was Model Reading, Choral Reading, Paired Reading, and Independent Reading. Also, we planned to use pretest and posttest procedures to assess reading rate, accuracy, and expression. During the Development phase, we produced and submitted the Repetitive ReadCycle Module, audio recordings, fluency tracking sheets, reflection activities, and related instructional materials for expert validation. The materials were revised based on the validators' recommendations before implementation. In the Implementation phase, the validated module was administered to Grade 11 and 12 ALS learners over seven weeks, with one structured instructional session each week. Audio-enhanced materials, guided practice, repeated reading, and progress monitoring supported Model Reading, Choral Reading, Paired Reading, and Independent Reading activities. In the Evaluation phase, posttests were administered according to the established procedures for the reading-fluency assessment. The researchers then organized and analyzed pretest and posttest results to determine changes in reading rate, accuracy, and expression following the intervention.

Data Analysis Procedure

Quantitative data obtained from the reading-fluency assessments of the 20 ALS learners were analyzed using descriptive and inferential statistical procedures. The mean and standard deviation were used to summarize the learners' pretest and posttest performance data. The learners' reading fluency levels before and after implementing the Repetitive ReadCycle Module with Audio-Enhanced Materials indicated changes in performance, including the magnitude and direction of those changes. Normality of the paired difference scores was examined before performing the paired-samples t-test. Normality of the distribution of difference scores was tested using the Shapiro – Wilk test. A p-value >.05 indicates insufficient evidence that the difference scores differ significantly from a normal distribution. In addition to statistical significance, we calculated an adequate effect size for paired samples to estimate the magnitude of the difference between pretest and posttest. This provided an estimate of the real size of the improvement seen over the p-value alone. Normality of the paired difference scores was checked using the Shapiro–Wilk test prior to performing the paired-sample t-test. The resulting p-value was 0.172, which is greater than the 0.05 level of significance. Therefore, there was not sufficient evidence to conclude that the paired difference scores were significantly different from a normal distribution. Thus, the normality assumption for the paired-samples t-test was presumed to be met.

A paired-samples t-test was performed to test for a statistically significant difference between learners' pretest and posttest reading-fluency scores. This analysis was justified since the same 20 learners were assessed pre- and post-intervention. The paired comparison analysis had 19 degrees of freedom. Statistical significance was set at $P<0.05$. Results were interpreted using pretest and posttest means and standard deviations, mean difference, t statistic, degrees of freedom, exact or reported p-value, 95% confidence interval of mean difference, and a suitable paired-samples effect-size estimate.

Ethical Considerations

The study followed proper ethical procedures for research among ALS learners. Participation was voluntary, and participants provided informed consent with parental consent as appropriate. Before data collection, the researcher obtained the necessary permission from the relevant school authorities. The data and evaluation results of the participants were kept confidential and used only for the purpose of the study. All the participants in the identified study group received the intervention, and participation did not affect the regular educational standing of the learners. The study also met relevant Department of Education policies and the ethical requirements for research involving human participants. The study did not reveal participants' identities in the presentation of the results.

Results and Discussion

Needs Analysis Identifying the Learning Gaps and Baseline of Reading Fluency Among ALS Learners

Table 1. *Frequency and Percentage Results of the Needs Analysis*

Category	Interpretation	Frequency	Percentage
Reading Fluency Self-Assessment	Agree	41	34.17%
Challenges in Reading	Difficulty with Pronunciation	18	90.00%
Learning Preferences	Important	**76**	47.50%
Motivation and Engagement	Neutral	**66**	33.00%
Learning Styles	Important	46	57.50%

According to the needs analysis, ALS learners' greatest challenge was pronunciation, with 18 learners (90%) reporting difficulty reading and pronouncing words correctly under the Challenges in Reading category. This finding showed that pronunciation difficulties significantly affected learners' reading fluency and comprehension, leading to the inclusion of pronunciation practice and audio-supported reading activities in the ReadCycle Module. However, the lowest finding was in Motivation and Engagement, where the most frequently selected response was "Neutral" (66 responses, 33.00%), suggesting that some learners had low confidence and participated inconsistently in reading activities. To address this, the module incorporated confidence-building strategies, repeated reading, and collaborative fluency activities. In general, the results provided strong evidence for developing the Repetitive ReadCycle Module with Audio-Enhanced Materials. The module was primarily designed to address learners' identified needs in pronunciation, decoding, pacing, and expression through repeated, model, choral, paired, and independent reading, as well as audio-assisted activities. Furthermore, the results on Learning Preferences and Learning Styles revealed that learners preferred guided instruction, audio support, and independent practice. Consequently, the module integrated teacher modeling, audio-enhanced materials, group reading activities, and self-paced fluency exercises to improve learners' reading accuracy, rate, expression, confidence, and overall reading fluency.

The needs analysis showed that the ALS learners had moderate reading fluency but had problems with pronunciation, decoding unfamiliar words, reading rate, and expressive reading. The findings also indicated that learners preferred guided instruction, audio-assisted reading, and independent learning opportunities, although some still showed inconsistent confidence and engagement during oral reading activities. This finding aligns with Kim (2023), who argued that automatic and accurate word recognition enables learners to focus more on comprehension, while pronunciation and decoding difficulties hinder comprehension. Similarly, Kim, Quinn, and Petscher (2021) argued that reading fluency is a multidimensional construct that includes reading accuracy, automaticity, and prosody, all of which can be improved through regular, meaningful practice in oral reading.

These findings are also supported by Fiorella and Mayer (2015), who found that the use of visual and audio instructional materials improves learning and retention, and by the UNESCO Institute for Lifelong Learning (2022), which highlighted the effectiveness of learner-centered, flexible, and self-directed instruction for adult

learners. These principles are reflected in the Repetitive ReadCycle Module, which includes repeated reading (RR), audio-assisted instruction, guided practice, and independent fluency activities. In addition, Schunk and DiBenedetto (2021) indicated that the higher the self-efficacy, the more engaged and persistent the learners are in the learning tasks. Martin, Ginns, and Papworth (2017) found that meaningful and supportive learning activities promote learners' motivation, confidence, and participation. Based on these findings, the Repetitive ReadCycle Module was developed to give learners opportunities for repeated reading, audio-assisted instruction, collaborative reading activities, and independent fluency practice to enhance engagement, confidence, and active involvement.

Develop the ReadCycle Module with Audio-Enhanced Materials

Figure 1 presents a sample page from the ReadCycle Module, illustrating the integration of repeated reading activities, audio-assisted instruction, and fluency monitoring tasks.

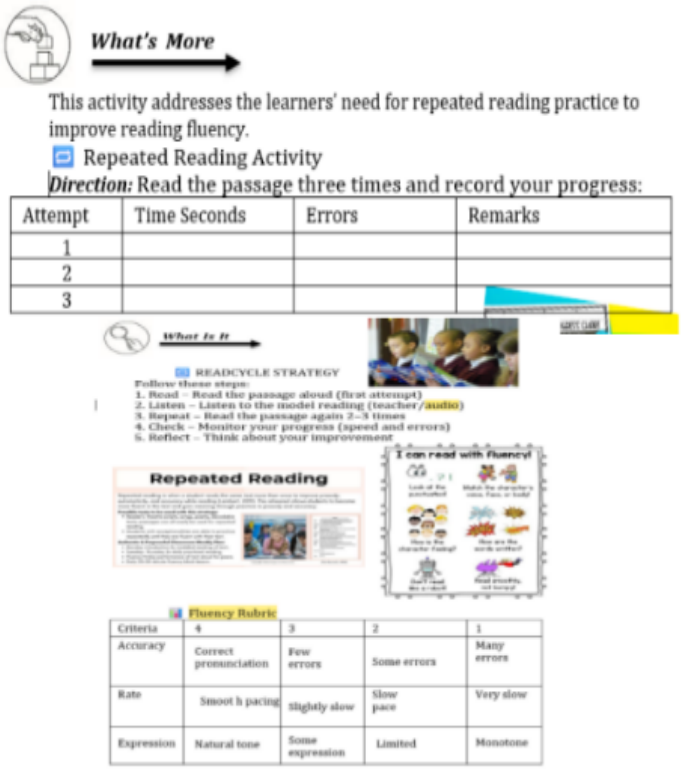

Figure 1. *Sample page of the ReadCycle Module*

The primary output of this project is the Repetitive ReadCycle Module with Audio-Enhanced Materials, which was developed to improve the reading fluency of Alternative Learning System (ALS) learners. The module was developed based on the needs analysis results, which showed learners' difficulties with pronunciation, decoding unfamiliar words, expression, pacing, and reading confidence, as well as their preference for guided and independent learning activities. The researcher used the ADDIE instructional design model (Analysis, Design, and Development) to conduct the needs assessment, analyze the learner data, identify the reading fluency concerns, and design the instructional structure, reading passages, fluency activities, reflection tasks, assessments, flowchart, and conceptual framework to ensure that the intervention is in line with the goals and expected outcomes of the study. The development process involved scriptwriting, audio recording and editing, module layout, formatting learning activities, expert validation, and revising materials. Costs were incurred for the printing, reproduction, transportation, internet and communication, audio recording, and other instructional materials needed for the study.

The module was implemented for seven weeks, once a week per instructional session, through a systematic process of needs analysis, module conceptualization, design and development, validation by experts, pretest administration, implementation of the ReadCycle intervention, posttest administration, data analysis and interpretation of findings. A key feature of the module is its audio-enhanced materials, which provide model pronunciation, pacing, intonation, and expression through recorded passages that learners first listen to, read along with, and eventually read independently. The module also promotes both individual and collaborative learning through self-paced repeated reading, timed reading, self-assessment, paired reading, and guided practice. In addition, fluency assessments and rubrics are integrated throughout the module to monitor learners' progress in accuracy, rate, expression, and confidence across the four stages of reading—Model Reading, Choral Reading, Paired Reading, and Independent Reading—ensuring gradual improvement through guided instruction, repeated practice, and continuous performance monitoring.

Validation of the Content and Structure of the Module Through Expert Evaluation

To evaluate the validity of the Repetitive ReadCycle Module with Audio-Enhanced Materials in terms of content quality, organization and structure, and assessment and evaluation, the module underwent expert validation.

Table 2. *Mean Score of the Module Validation*

Validation Area	Mean	Interpretation
Content Quality	3.44	Strongly Agree
Organization and Structure	3.42	Strongly Agree
Assessment and Evaluation	3.38	Strongly Agree
Column Mean	**3.50**	**Strongly Agree**

Experts validated the instructional and assessment materials developed by the researcher for content before implementation. Three (3) validators conducted the validation: the Dean of the Graduate School, a Graduate School Instructor, and the Vice-President for Academic Affairs, selected for their expertise in academic and instructional matters. Each validator independently assessed the developed module using the Module Validation Form. The material was evaluated for content accuracy and relevance, organization and presentation, clarity of instructions and assessment tasks, and overall quality. For each criterion, the validators provided a rating, comments, and suggested improvements. The three (3) validators' ratings were averaged to calculate the mean validation rating per criterion and the overall mean validation rating. The resulting scores were interpreted using the rating scale and corresponding descriptive interpretation provided in the Module Validation Form. The manuscript's overall weighted mean validation score was 3.50, interpreted as "Strongly Agree". The weighted means of Content Quality, Organization and Structure, and Assessment and Evaluation were 3.44, 3.42, and 3.38, respectively. The validators' feedback and recommendations were used to revise the module to improve the clarity and wording of the instructions, improve the organization and presentation of the lessons and activities, improve the alignment of the activities and assessments with the intended learning competencies, correct grammatical and technical errors, and improve the overall usability and consistency of the module. The validators' recommendations were incorporated into the instructional materials before use with the participating learners.

Implementation of the Validated ReadCycle Module in ALS Classes

The validated Repetitive ReadCycle Module with Audio-Enhanced Materials was implemented with ALS students across the four reading stages (Model Reading, Choral Reading, Paired Reading, and Independent Reading). Before the intervention, a pretest established the learners' baseline reading fluency in terms of accuracy, speed, and expressiveness. Results indicated problems with pronunciation, pacing, fluency, and expressive reading, suggesting a need for structured fluency instruction. During the seven-week implementation, supported by timed reading, repeated oral reading, guided practice, reflection activities, self-assessment, and audio-assisted instruction, learners participated in Model Reading, Choral Reading, Paired Reading, and Independent Reading. The audio-enhanced materials provided models of correct pronunciation, pacing, phrasing, and expression. Repeated reading helped learners automatically recognize words and increased their confidence and engagement in oral reading activities. Learners tracked progress through fluency measures such as words per minute (WPM), pronunciation accuracy, and expressiveness rubrics. Posttest results using similar assessment procedures indicated improved reading accuracy, pacing, smoothness, and expression after the intervention. The findings suggest that combining repeated reading, guided instruction, collaborative learning, and audio-assisted activities contributed positively to the development of reading fluency among ALS learners. Overall, the Repetitive ReadCycle Module with Audio-Enhanced Materials offered a systematic, learner-centered intervention that

successfully improved reading fluency through repeated practice, guided instruction, collaborative learning, and audio-assisted reading activities.

Effectiveness of the Module by Comparing Pretest and Posttest Scores on Reading Fluency

Reading Expression Scores

Based on Table 3, the Repetitive ReadCycle Module with Audio-Enhanced Materials contributed to improvements in learners' reading expression.

Table 3. *Descriptive Statistics for Pretest and Posttest Reading Expression Scores*

Statistic	Pretest Score	Pretest Level	Posttest Score	Posttest Level
M	2.40	Developing	3.00	Proficient
Mdn	2.00	Developing	3.00	Proficient
SD	0.82	–	0.73	–
Minimum	1.00	Beginning	1.00	Beginning
Maximum	4.00	Advanced	4.00	Advanced

Note. n = 20. Scores were interpreted as follows: 1.00–1.75 = Beginning; 1.76–2.50 = Developing; 2.51–3.25 = Proficient; 3.26–4.00 = Advanced. The mean difference between posttest and pretest scores was 0.60. Dashes indicate that a verbal description is not applicable.

Learners' mean reading-expression score improved from 2.40 (SD = 0.82) on the pretest to 3.00 (SD = 0.73) on the posttest, a gain of 0.60 points. This increase was statistically significant on a paired-samples t-test, $t(19) = 2.85$, $p = .010$, 95% CI [0.16, 1.04]. The paired-samples effect size was $d = .64$. Therefore, the increase in reading expression was statistically significant and medium in effect size. The distribution of paired difference scores was not normal ($p = .015$), as assessed by the Shapiro-Wilk test, so a Wilcoxon signed-rank test was conducted as a nonparametric robustness check. This finding was consistent with the paired t-test ($W = 19.50$, $p = .014$). The agreement between the two analyses further supports the observed improvement in reading expression. The improvement may be related to the repeated opportunities for oral reading and exposure to fluent reading models provided by the module. The Model Reading and Choral Reading stages provided learners with opportunities to hear and reproduce appropriate phrasing and intonation, while Paired Reading and Independent Reading provided additional opportunities to practice expressive reading. These findings align with the literature reviewed in the study on guided oral reading, repeated reading, and audio-assisted instruction.

Reading Rate Scores

Table 4 shows that learners' reading rate increased after the module was implemented.

Table 4. *Descriptive Statistics for Pretest and Posttest Reading Rate Scores*

Statistic	Pretest Score	Pretest Level	Posttest Score	Posttest Level
M	1.75	Beginning	3.35	Advanced
Mdn	2.00	Developing	3.00	Proficient
SD	0.91	-	0.49	-
Minimum	1.00	Beginning	3.00	Proficient
Maximum	4.00	Advanced	4.00	Advanced

Note. n = 20. Scores were interpreted as follows: 1.00–1.75 = Beginning; 1.76–2.50 = Developing; 2.51–3.25 = Proficient; 3.26–4.00 = Advanced. The mean difference between posttest and pretest scores was 1.60. Dashes indicate that a verbal description is not applicable.

The mean score on the reading-rate measure was 1.75 (SD = 0.91) at pretest and 3.35 (SD = 0.49) at posttest, a mean increase of 1.60 points. A paired-samples t-test showed a statistically significant difference between the pretest and posttest, $t(19) = 6.84$, $p < .001$, 95% CI [1.11, 2.09]. The paired-samples effect size was large ($d = 1.53$). The paired difference scores violated the assumption of normality as assessed by the Shapiro-Wilk test ($p < .001$); therefore, a Wilcoxon signed-rank test was conducted. Nonparametric analysis confirmed a statistically significant improvement, $W = 7.00$, $p < .001$. The large gain in reading-rate score suggests learners performed better on the study's reading-rate measure after the intervention. Repeated readings may have helped learners become more familiar with the texts and reading patterns, resulting in more efficient oral reading.

Reading Accuracy Scores

The ReadCycle Module improved learners' reading accuracy, as shown in Table 5. In reading accuracy, the mean pretest score was 1.75 (SD = 0.91), and the posttest mean was 2.10 (SD = 0.64), for a mean gain of 0.35 points. A paired-samples t-test indicated this increase was not statistically significant, $t(19) = 1.58$, $p = .130$, 95% CI [−0.11,

0.81], with a small-to-moderate effect size of d = 0.35. However, paired difference scores were not normally distributed (Shapiro-Wilk test: p =.011). For a robustness check, a Wilcoxon signed-rank test was performed. There was no statistically significant difference (W = 35.00, p = .124).

Table 5. *Descriptive Statistics for Pretest and Posttest Reading Accuracy Scores*

Statistic	Pretest Score	Pretest Level	Posttest Score	Posttest Level
M	1.75	Beginning	2.10	Developing
Mdn	1.50	Beginning	2.00	Developing
SD	0.91	-	0.64	-
Minimum	1.00	Beginning	1.00	Beginning
Maximum	3.00	Proficient	3.00	Proficient

Note. n = 20. Scores were interpreted as follows: 1.00–1.75 = Beginning; 1.76–2.50 = Developing; 2.51–3.25 = Proficient; 3.26–4.00 = Advanced. The mean difference between posttest and pretest scores was 0.35. Dashes indicate that a verbal description is not applicable.

Thus, although the descriptive results show an increase in accuracy scores, the evidence does not support the conclusion that reading accuracy significantly improved following the intervention. The smaller change in accuracy compared with reading expression and reading-rate performance may indicate that accuracy required more sustained or intensive practice. The seven-week intervention may also have produced greater immediate benefits for reading fluency behaviors such as pacing and expression than for accuracy. This finding matters because it suggests no statistically significant gains across all measured dimensions due to the intervention and offers a more balanced interpretation of the outcomes.

Fiorella and Mayer (2015) also found that integrating auditory and visual instructional materials improves learning and knowledge retention, and a systematic review and meta-analysis by Clinton-Lisell (2023) showed that reading while listening to fluent audio models improves reading fluency, word recognition, and comprehension, especially for struggling readers. Similarly, Hui (2024) found that audio-assisted reading helps with pronunciation, phrasing, and expressive reading through repeated listening and imitation. Overall, the results confirm the effectiveness of combining repeated reading with audio-assisted instruction in improving ALS learners' reading accuracy and challenge the assumption that reading fluency among ALS and struggling readers cannot improve within a short intervention period. Instead, the findings suggest that reading difficulties are more strongly associated with limited fluency practice, insufficient instructional support, and inadequate exposure to effective reading interventions than with learners' abilities alone.

Summary of Pretest-Posttest Inferential Results

Table 6. *Paired-Samples t Test Results for Pretest and Posttest Reading Fluency Scores*

Outcome	Pretest *M* (*SD*)	Posttest *M* (*SD*)	*M*diff	*t*(19)	*p*	95% CI	Cohen's *d*
Expression	2.40 (0.82)	3.00 (0.73)	0.60	2.85	.010	[0.16, 1.04]	0.64
Reading rate	1.75 (0.91)	3.35 (0.49)	1.60	6.84	< .001	[1.11, 2.09]	1.53
Accuracy	1.75 (0.91)	2.10 (0.64)	0.35	1.58	.130	[−0.11, 0.81]	0.35

Note. N = 20. CI = confidence interval for the mean difference (posttest − pretest).
Cohen's *d* was computed for paired samples as the mean difference divided by the standard deviation of the difference scores.

The results indicated that the intervention was associated with statistically significant improvements in reading expression and reading rate scores, but not in reading accuracy. The largest effect observed was for reading rate (d = 1.53), followed by expression (d = 0.64), and a smaller effect for accuracy (d = 0.35). Because the paired difference scores did not meet the normality assumption, we also ran Wilcoxon signed-rank tests. The results agreed with the paired-samples t-tests: expression and reading rate improved significantly, but accuracy did not. Such consistency supports the interpretation of the pretest-posttest results. However, these results should not be taken as conclusive evidence that the module caused the improvements observed. The study used a one-group pretest-posttest pre-experimental design without a comparison group. Thus, maturation, repeated testing, familiarity with the assessment, or other learning experiences cannot be entirely ruled out as factors. Therefore, interpret the results as changes in learner performance after the module was implemented, rather than as definitive causal effects.

Conclusion

This study developed and implemented the Repetitive ReadCycle Module with Audio-Enhanced Materials to improve the reading fluency of Grade 11 and 12 Alternative Learning System (ALS) learners. The module focused on structured, repeated reading opportunities through Model Reading, Choral Reading, Paired Reading, and Independent Reading. Audio-enhanced materials gave learners more opportunities to hear and practice fluent reading. The ADDIE instructional design framework guided module development based on the learning needs of the learners participating in the study. Pretest-posttest results showed statistically significant gains in reading expression and reading-rate scores after the seven-week implementation of the module. The mean expression score improved from 2.40 in the pretest to 3.00 in the posttest, and the reading-rate score improved from 1.75 to 3.35. Paired-samples analyses revealed significant differences for expression $t(19) = 2.85$, $p = .010$, and reading rate $t(19) = 6.84$, $p < .001$. The effect sizes obtained were medium for expression ($d = 0.64$) and large for reading rate ($d = 1.53$). By contrast, reading accuracy increased from a mean of 1.75 to 2.10, but the difference was not statistically significant, $t(19) = 1.58$, $p = .130$. Thus, the findings provide some evidence of improvement across the dimensions of reading fluency measured, but not uniform improvement across all outcomes.

The findings suggest that the structured repetition and graduated support embedded into the ReadCycle approach may be especially effective in promoting reading expression and reading-rate performance among the participating ALS learners. The transition from modeled reading to choral, paired, and independent reading gave learners repeated opportunities to observe, practice, and apply fluent reading behaviors. The audio-enhanced component also supplied an additional source of reading modeling. These features are consistent with the instructional principles of repeated reading, guided oral reading, and audio-supported learning discussed in the study.

However, interpret the results cautiously because of the study's methodological limitations. First, only 20 ALS learners were involved, limiting the statistical power and the results' transferability to a larger ALS population. Second, the study used a pre-experimental one-group pretest-posttest design and had no control or comparison group. Therefore, the observed changes cannot be attributed solely to the Repetitive ReadCycle Module. Other explanations such as maturation, repeated exposure to the assessment, practice or testing effects, and other learning experiences during the intervention period cannot be completely ruled out. Third, the respondents were drawn from some ALS learning centers in the Makilala East District of North Cotabato, which limits the geographical generalizability of the findings to ALS learners in other districts or regions.

In addition, interpret the results considering the measurement and scoring procedures used for the reading-fluency outcomes. In particular, the reading-rate measure reported in the dataset consists of scores on a 1–4 scale rather than actual words-per-minute measurements. Accordingly, describe the findings as changes in reading-rate scores or reading-rate performance unless actual WPM measurements are available. This distinction is important for accurate interpretation of the outcome.

Despite these limitations, the observed pretest-posttest improvements suggest that the Repetitive ReadCycle Module with Audio-Enhanced Materials may be a promising instructional resource for supporting selected dimensions of reading fluency among the participating ALS learners. The significant gains in reading expression and reading-rate scores provide preliminary evidence warranting further investigation using larger samples, multiple learning settings, and stronger experimental or quasi-experimental designs that include a comparison group. Future studies may also examine longer intervention periods and more sensitive measures of reading accuracy and actual reading rate to determine whether improvements can be sustained and generalized across different ALS learner populations.

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Conflict of Interests

The researcher declares no conflict of interest in the study's conduct, analysis, or reporting.

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