

Project e-ARAL: Integrating Microsoft Reading Coach to Support Reading Comprehension among Struggling Grade 8 Learners

Thea Czaireena T. Dizon¹, Bryan V. Catama², Christian Ervhen S. Laguatan³, Kenneth Christian L. Duyan⁴, Laye Ann C. Zaldivar⁵, Guwyneth Kahrryz T. Caluza⁶

School of Teacher Education and Liberal Arts, Saint Louis University, Philippines

thea.czaireena22@gmail.com

Abstract

This action research explores the integration of MS Teams Reading Coach as a digital intervention tool to improve the reading comprehension of Grade 8 students under the ARAL program. A Quasi-experimental research design was employed to determine the effectiveness of MS Teams Reading Coach in improving the reading comprehension of struggling learners. Purposive sampling is utilized to select participants currently at the Frustration Level of reading comprehension, although the participants were initially identified through the school's PHIL-IRI screening as Frustration Level readers, their pre-test mean score during the study fell under the Instructional Level category. Statistical analysis was also conducted to interpret the results, focusing on the growth of reading comprehension over time. The findings showed a significant improvement in the performance of the learners with average scores increasing from 61.33% to 79.33%. However, it also shows that students' performance was inconsistent and had fluctuations. It is recommended that the digital tool should be paired with more localized topics/stories and that teachers provide mini lessons as well. This approach aims to maximise the use of technology and ensures that the learners comprehend the material.

Keywords: MS Teams Reading Coach; Reading Comprehension; Action Research

Received: July 11th, 2026 Accepted : August 27th, 2026 Published : August 30th, 2026

INTRODUCTION

The learning crisis in the Philippines has reached a critical point. The World Bank (2022) reports that 9 out of 10 Filipino children aged 10 struggle to read and understand simple texts. This is also shown in the PISA (2022) results, where Filipino students ranked among the lowest in reading proficiency globally. As a response, the Philippine government implemented Republic Act No. 12028, also known as the Academic Recovery and Accessible Learning (ARAL) Act (2024) to provide a national intervention program for struggling learners. The ARAL Program is designed as a national intervention to provide opportunities for learners who are at or below the "Frustration Level" of reading proficiency. This initiative aligns with the MATATAG Agenda where there is a call for the "digital transformation" of basic education to improve learner outcomes through technology-integrated instruction.

Artificial Intelligence (AI), such as the technology in Microsoft Reading Progress (2021), has been found to reduce "reading anxiety" because students feel safer practicing with a machine than in front of a class (Stevens et al., 2017). Research by Haleem et al. (2022) suggests that AI-driven tools can personalize the pace of learning. Based on Bloom's Mastery Learning Theory, learners must first achieve mastery before progressing to the next activity. In this study, mastery was measured using an 80% mastery threshold in the MS Teams Reading Coach activities instead of requiring perfect scores. This allowed the learners to continue practicing while gradually improving their reading comprehension skills throughout the intervention. The integration of these AI tools into Catch-up Fridays (DepEd, 2024) can provide a structured window for this intervention. Studies on mobile learning (m-learning) demonstrate that tablet-based interventions are particularly effective in improving phonemic awareness among secondary students who have missed foundational literacy milestones (Sung et al., 2016).

The "Mastery Learning" model that was first proposed by Benjamin Bloom (1968), serves as the theoretical framework of this study. This model explains that students should not progress until they have mastered the current task. By requiring students to "perfect" their understanding before moving to the next level, we ensure that decoding errors are corrected in real-time. In reading, mastery includes not only accurate decoding but also comprehension or understanding of the text. According to Pourhosein & Sabouri (2016), comprehension is the process of eliciting and making meaning through interaction and involvement with written language. It involves getting the main idea and connecting information in the text. In reading, comprehension is important because it helps students understand what they read, not just say the words.

Roxas National High School, like many other schools, faces challenges regarding student literacy. With the implementation of the DepEd's ARAL Program, it can be seen that there is an urgent need to provide targeted interventions for learners who are falling behind, specifically in reading comprehension. However, traditional reading interventions may not always provide immediate feedback to struggling learners during reading activities. Through MS Teams Reading Coach, learners receive immediate and judgment-free feedback that helps them practice independently and improve their reading comprehension skills through repeated reading activities and corrections. The system employs a mastery-learning model where students engage in reading comprehension, followed by receiving immediate feedback before progressing. The primary reason for this research is to automate and enhance the remediation process. Manual reading drills are time-consuming for teachers. By utilizing the MS Teams-based Reading Coach, students can practice independently in a safe and judgment-free environment. The "mastery" constraint (where students cannot proceed until they perfect the task) ensures that learners do not just skip through content but genuinely gain the necessary listening and reading skills.

This study aims to evaluate the effectiveness of the MS Teams-based :Reading Coach: intervention in improving the reading proficiency, specifically understanding text of identified struggling Grade 8 readers under the Frustration Level of Roxas National High School. It aims to answer the following questions:

1. What is the baseline reading comprehension level of the Grade 8 learners identified under the ARAL Program prior to the intervention?

2. What are the pre-test scores of the Grade 8 learners prior to the MS Teams Reading Coach intervention?
3. What are the post-test scores of the Grade 8 learners after the MS Teams Reading Coach intervention?
4. Is there a significant difference between pre-test and post-test scores of learners using MS Teams Reading Coach intervention?
5. Based on the findings, what modifications can be made to improve the implementation of “Reading Coach” intervention?

Proposed Innovation, Intervention and Strategy

The study used Project e-ARAL: Reading Coach Integration which is a structured, AI-assisted literacy intervention designed to improve reading proficiency of learners grounded on mastery-based fluency approach. The intervention is integrated into the school’s ARAL Program remediation blocks, occurring in 40-minute sessions twice weekly for six weeks.

To ensure the fidelity of the implementation, the intervention followed a four-step replicable procedure:

- | | | |
|---|------------|---|
| 1 | Assignment | The teacher assigns passages via Microsoft Teams Reading Coach. |
| 2 | Practice | Learners will engage in oral reading which is assisted by artificial intelligence (AI) to provide immediate corrective feedback. |
| 3 | Mastery | Progression is governed by numerical thresholds that prompts learners to move to another difficulty level. |
| 4 | Reflection | The application will prompt a reflective session where learners will select emojis and words that describe what they feel about the session. This part only limits emoji selection rather than a structured reflection. |

Following this action research cycle, the researchers conducted a weekly reflective session to analyze usage logs and adjust passage difficulty to scaffold learning needs. To address technological constraints, a contingency plan was prepared which involved device rotation, this is because the “Practice” and “Mastery” parts of the session required AI-driven feedback that must be addressed real-time. All digital data stored via MS Teams were handled according to DepEd Child Protection and Data Privacy policy, ensuring that learner performance logs are accessible only to authorized research personnel.

Research Gap and Contribution

Artificial Intelligence (AI) and computer-assisted reading interventions can aid in education and reduce students' reading anxiety. Numerous studies demonstrated that AI reduces reading anxiety because learners feel safer practicing their reading with a machine rather than in front of their peers. Similarly, other studies established that AI-driven tools personalize the individual pace of learning. Furthermore, literatures confirms that computer assisted reading programs effectively produce measurable gains in literacy skills for “at risk” students (Pindiprolu & Forbush, 2023) and that AI tools like MS Teams are effective across varying grade levels in the Philippine educational contexts (Lapatha, Potot, & Saguin,

2024). In addition to this, interactive strategies such as the 4Rs (Read, Retell, React, Reflect) are highly successful in enhancing the comprehension of Grade 8 learners compared to more passive session. Systematic reviews also indicate that AI-assisted immediate feedback is very effective for task regulation and enhancing motivation in online educational environments (Ba et al., 2025; Qun, 2025).

Despite these promising findings regarding digital interventions, there was not much mention on how to having a grasp on a mastery learning skill within a specific tool, such as the MS Reading Coach, could be integrated into a localized remediation like the Philippine ARAL program without causing academic overload for Frustration leveled learners. Additionally, while linguistic proficiency is known to drive reading complexity, the effects of AI-assisted feedback on specific types of comprehension within this specific demographic remained largely unexplored. To address this, this study is how the effectiveness of the MS Teams-based Reading Coach as a digital intervention tool in improving the reading comprehension of identified struggling Grade 8 readers at Roxas National High School under the ARAL program is investigated. Specifically, it examines the baseline and post scores to evaluate if immediate AI feedback can successfully help struggling learners out of the Frustration Level.

This study is compelling evidence that AI-assisted interventions like the MS Teams Reading Coach can significantly increase reading comprehension performance. This provides a proven four-step intervention procedure, which is Assignment, Practice, Mastery, and Reflection, that maximizes technology while directly addressing the MATATAG Agenda's call for digital transformation. Furthermore, it contributes critical pedagogical insights by concluding that while AI interventions are highly beneficial, they must still be paired with an active teacher who supports and localizes mini-lessons to ensure no learner is left behind, especially when mastering concepts.

METHOD

Participants/subject / population and sample

Purposive Sampling was used in this study. This sampling technique involves intentionally selecting participants based on specific characteristics relevant to the objectives of the research. It is described as a method of selecting participants in such a way that they represent particular characteristics of the population that are central to the study. Purposive sampling has a long history in research, and while it is often considered simple, it plays an important role in ensuring alignment between the study's goals and the chosen participants. By comparing the population with the study's initial aims and objectives, purposive sampling strengthens the continuity, accuracy, and relevance of the data and conclusions (Thomas F. B., 2022). In this study, participants were intentionally selected based on the school's initial literacy mapping under the ARAL Program, ensuring that those who meet the specific criteria for reading intervention are included. The participants of the study consist of 15 Grade 8 students in Roxas National High School who have created and are using DepEd accounts. Grade 8 students were chosen because they are at a critical stage where reading comprehension is more advanced and required across different subject areas making it important to strengthen their understanding skills. The participants are specifically those who are struggling with their comprehension skills in reading based on

the frustration level of the PHIL-IRI. These students were purposely selected due to their identified difficulties in literacy and comprehension. These Grade 8 students demonstrated challenges in word recognition, phonetic decoding and especially in deeper comprehension skills such as understanding meaning, identifying main ideas, making inferences, and retaining information during oral reading activities and classroom assessments. These difficulties may affect their overall reading comprehension. The small sample size of 15 participants was explicitly constrained by technological infrastructure limitations. Account inaccessibility issues where only 15 active DepEd provided MS Teams accounts could be accessed on the school tablets. While a sample size of $N = 15$ limits the statistical generalizability of the findings, calculating effect size yielded a Cohen's d of 0.78, indicating a large practical impact despite the small size.

Instruments

This study utilized a Quasi-Experimental One-Group Pre-test-Post-test Design. It is quantitative in nature as it measures improvement in scores. This design was applicable as it measured the growth of the same group of students before and after the introduction of the Reading Coach. The one-group pretest-posttest design is commonly used in program evaluation and documentation because it measures not only what participants achieve at the end of an intervention but also how much change occurs during participation (Ma, C.M. et al., 2018). This design is especially useful when no comparison group is available, as it allows the same group of participants to serve as their own basis for measuring improvement. This design is appropriate because it measures the growth of the same group of students before and after the introduction of the intervention. As explained by Deschênes and Meng (2018), quasi-experimental methods require careful consideration of how treatment is assigned and how comparison groups are defined. In this study, the same group serves as its own comparison through pre-test and post-test measures. The study follows a standardized six-week implementation timeline. Participants will engage in 40-minute sessions held twice weekly, totaling 12 intervention points. This specific 'dosage' is mathematically tracked through researcher logbooks to ensure operational reliability and consistency across all participants.

The comprehension assessments instruments were generated using the AI tool embedded within the MS Reading Coach and tailored to the Grade 8 curriculum standards. Content validity was formally established through an expert review conducted by the researchers' cooperating teacher, a Master Teacher II in English. The evaluator examined the passage complexity, readability, and item alignment with the K-12 English curriculum competencies to ensure the tasks accurately measured literal and inferential reading skills appropriate for Grade 8 learners. To prevent test-retest learning bias while maintaining parallel equivalence, the pre-test and post-test utilized passages matched for difficulty level and word count which is paired with distinct comprehension questions. Reliability was maintained through standardized administration procedures across all participants and automated scoring protocols integrated within the digital platform. The main limitation of the use of a single-group pre-test-post-test design is the absence of a control group which introduces potential threats to validity such as history, maturation, and testing effects. Without a non-intervention comparison group, it cannot be definitively proven that the

observed 18-percentage-point gain was driven entirely by the MS Teams Reading Coach rather than concurrent classroom instruction or natural cognitive development over time. Future iterations of this action research could incorporate a delayed-treatment control design or comparative intervention groups to strengthen claims while upholding equitable remedial support.

Data analysis procedures

This study employed a pre-test and post-test design to find out if Reading Coach can improve the reading comprehension of Grade 8 students. Reading passages suited for Grade 8 were used to check both reading accuracy and comprehension. Each passage has 1-3 paragraphs, followed by comprehension questions that ask students to identify main ideas, remember details, and make simple conclusions. The passages and questions were checked and approved by the Department Head for English or a Master Teacher to make sure they match the K-12 curriculum and are appropriate in terms of difficulty and scoring. The pre-test and post-test used the same reading passages so that improvement in comprehension can be accurately measured. However, different sets of questions are used to avoid memorization and to make sure that students understood the text, not just remembering answers. The pre-test was given before the intervention to identify the students level in reading comprehension. After the pre-test, the students will have a weekly reading session for 3 months using Reading Coach through MS Teams. In these sessions, students will do guided reading activities using passages from Reading Coach assignments prepared by the researchers. These activities helped improve comprehension through repeated reading, immediate feedback, and guided practice. MS Teams will also help in organizing and monitoring the sessions and making them easy access for all participants.

Aside from the scores, digital data were collected through the MS Teams teacher analytics. This includes the number of reading attempts made by each participant, which showed how often they practice and how engaged they are. Tracking these attempts helped measure their progress and level of mastery during the intervention. One limitation of the study is that only a small number of students were able to give reflections, which may affect the qualitative data. Because of this, the study focused more on the numerical results, especially the comparison of the pre-test and post-test scores, to determine the effectiveness of the intervention.

Procedure:

Orientation of Students

The researchers oriented the students on how to use MS Teams Reading Coach to enhance their reading comprehension skills through their tablets. A guided demonstration was provided on how to access the assigned reading passages, understand the texts presented on the platform, and respond to comprehension questions effectively. Students were also given time to explore the interface to familiarize themselves with the features that support comprehension, ensuring they can navigate and use the tool confidently before the intervention begins.

Administration of Pre-test

A pre-test was administered to establish baseline data in reading comprehension. This assessment focused on evaluating students' ability to understand, interpret, and

analyze texts, including identifying main ideas, supporting details, and making inferences. The results were used to determine the students' initial level of reading comprehension prior to the implementation of the intervention.

Implementation of the Intervention

The intervention was conducted over a set period with thirteen sessions held weekly. In each session, students will read selected texts using the Reading Coach in MS Teams. After reading each text, students answered literal and inferential questions to assess their understanding. The activities are designed to strengthen their vocabulary skills, word meanings, context clues, pronunciation, phonics, and decoding skills through consistent guided practice.

Administration of Post-test (13 sessions)

After the intervention period, a post-test was administered using a comparable reading passage with similar content and level of difficulty as the pre-test. This assessment was focused on measuring students' reading comprehension skills, including their ability to understand, interpret, and analyze the text. The results of the pre-test and post-test were compared to determine any improvement in the students' reading comprehension performance.

Reflection

After each session, students participated in a reflection activity to express their thoughts and emotions about the reading task. They were encouraged to share what they understood, what they found challenging, and what strategies helped them. This reflection helped students become more aware of their learning process and progress. It will also provide an opportunity for them to connect their feelings with their performance in reading comprehension.

Giving of Certificate of Recognition

All participating students were given certificates of recognition to acknowledge their hard work and success in finishing the E-ARAL program.

Data Analysis Plan

Descriptive statistics was used to analyze the data gathered in the study. Descriptive statistics are used to summarize data in an organized manner by describing the relationship between variables in a sample or population (Mishra et al., 2019). Specifically, the mean and standard deviation were computed to describe the pre-test and post-test scores of the participants. The mean determined the average performance of the students, while the standard deviation measured the variability or spread of the scores. These statistical measures helped determine any changes in students' reading after the intervention. The data analysis focuses exclusively on reading comprehension. Following a 'Term Purge' of the initial proposal, all references to spelling performance have been removed to align with the validated instruments. Furthermore, the analysis will formally integrate MS Teams Reading Coach telemetry (specifically reading attempts and accuracy rates). A correlation analysis was conducted to determine how these digital engagement metrics relate to the statistical gains in comprehension scores.

Inferential statistics was used to determine if there is a significant difference between the pre-test and post-test scores of the students. A paired sample t-test was applied because

the same group of participants will take both tests. This test compares the mean scores before and after the intervention to see if the change is statistically significant (Xu et al., 2017). The results will help determine whether Project e-ARAL was effective in improving students' reading and spelling performance.

Ethical Considerations

In accordance with the DepEd Child Protection and Data Privacy policy (DO 40, S. 2021), this study maintains strict confidentiality over all sensitive learner data. A critical ethical boundary involves the handling of the Philippine Informal Reading Inventory (Phil-IRI) results, which classify the participants at the Frustration Level. Their individual Phil-IRI scores and diagnostic profiles are kept private to protect them from social or academic stigma because these students struggle with word recognition and may feel a sense of withdrawal from reading.

FINDINGS AND DISCUSSIONS

This part presents both tabular and textual manner the data gathered from the results of the pre-test and post-test of the learners who underwent the MS Teams Reading Coach intervention integrated in the Project e-ARAL: Reading Coach Integration.

Action Research Question 1. What is the baseline reading comprehension of the Grade 8 learners identified under the ARAL Program prior to the intervention?

The baseline reading comprehension level of the Grade 8 learners were under the Frustration Level of the PHIL-IRI Assessment of Roxas National High School.

Table 1. Phil-IRI Oral Reading Profile

Student's Score Percentage	Comprehension Level	Description
58% - below	Frustration	The level at which readers find reading materials so difficult that they cannot successfully respond to them (Flippo, 2014).

This is the lowest level in which the Grade 8 learners selected shows withdrawal from reading tasks and refuses to read.

The individual results of the PHIL-IRI assessment could not be publicly presented or fully disclosed due to confidentiality policies. Considering that PHIL-IRI results are sensitive information, they are kept private to protect the identity of learners and to prevent shaming or labeling.

Action Research Question 2. What are the pre-test scores of the Grade 8 learners prior to the MS Teams Reading Coach intervention?

Table 2. Pre-test scores of the Grade 8 learners prior to the MS Teams Reading Coach Intervention

Scores	Frequency	% of Students	Comprehension Score	Reading Level
4	7	46.67%	80%	Independent
3	4	26.67%	60%	Instructional
2	3	20.00%	40%	Frustration
0	1	6.67%	0%	Frustration
Mean: 3.07	Total: 15	100%	Class Mean: 61.33%	Instructional

Discussion:

Table 2 shows the students' overall reading comprehension performance in the pre-test session. The highest score out of 5 items is 4 with a frequency of 7 which represents 46.67% of the total participants. This indicates a comprehension score of 80% which means they are Independent readers. However, 4 students (26.67%) got a score of 3 out of 5 which indicates Instructional readers with a comprehension score of 26.67%, 3 students (20%) got a score of 2 out of 5 and 1 student (6.67%) got a score of 0 out of 5 which indicates Frustrated readers respectively. The participants as a group scored a mean of 61.33% which places them under the Instructional Level. This aligns with the initial identification of the class as "struggling readers."

The prevalence of learners belonging to the Instructional and Frustration levels which is 53.33% combined reflects a broader national trend. Basali (2024) notes that despite the emphasis on global literacy, Filipino learners continue to lag behind making Grade 8 an important catch-up year where skills such as inferential abilities must be mastered. The findings also aligned with Misanes and Pascual (2023) that Grade 8 learners in local contexts fall under Frustration level post-pandemic. For Sultan et al. (2022) the results of their pre-test in their action research is also low citing that interventions adds to the task of learners and may cause academic overload and stress resulting in a low entry level result.

Reflection:

The prior exposure of the MS Teams Reading Coach intervention to the participants having a majority result of learners under the Instructional and Frustration levels made us realize that there is a need for multimedia exposure. Misanes and Pascual (2023) finds that low-entry level scores during a pre-test is a result of limited access to multimedia. This prompts us to not just improve reading comprehension while on the intervention but to also help them master basic multimedia skills. Following the implementation of the MS Reading Coach intervention, the post-test results demonstrated a clear movement across these standard Phil-IRI brackets. The class mean score rose to 79.33%, placing the group at the upper boundary of the Instructional Level which is an 18-percentage-point increase. On an individual level, 73.34% of the Grade 8 participants achieved post-test comprehension scores between 80% and 100%, officially advancing into

the Independent Level. Conversely, only one student (6.67%) remained within the Frustration Level due to limited session engagement. Grounding the findings in these official Phil-IRI score bands accurately documents that the intervention successfully transitioned the vast majority of struggling learners from requiring continuous teacher scaffolding to reading independently.

Action Research Question 3. What are the post-test scores of the Grade 8 learners after the MS Teams Reading Coach intervention?

Table 3. Post-test scores of the Grade 8 learners after the MS Teams Reading Coach Intervention.

Scores	Frequency	% of Students	Comprehension Score	Reading Level
10	1	6.67%	100%	Independent
9	6	40.00%	90%	Independent
8	4	26.67%	80%	Independent
7	3	20.00%	70%	Instructional
2	1	6.67%	20%	Frustration
Mean: 7.93	Total: 15	100%	Class Mean: 79.33%	Instructional

Discussion:

Table 3 shows the students' overall reading comprehension performance after completing the MS Teams Reading Coach Intervention. The score of 9 out of 10 got the highest frequency with 6 learners or 40% of the participants, the score indicates a comprehension score of 90% which places them under Independent readers. The participants as a group scored a mean of 79.33% which places them under the Instructional reading level. Although the participants remained under the Instructional Reading Level from pre-test to post-test, the results still showed a significant improvement in reading comprehension performance. The mean score increased from 61.33% to 79.33%, showing an 18-percentage point gain after the implementation of Project e-ARAL using MS Teams Reading Coach. This indicates that the intervention contributed to the improvement of learners' comprehension skills within the Instructional Level bracket without overstating a shift to another reading category.

The improvement of the Grade 8 learners' scores is compliments with the findings of Deluao et al. (2022) in which they used the 4Rs strategy (Read, Retell, React, Reflect) a similar intervention with MS Teams Reading Coach that requires learners to undergo an interactive strategy rather a passive reading session. The AI-assisted feedback of the Reading Coach supports the review of Ba et al. (2025) that such feedback makes the intervention effective in task regulation. This is explained by the study of Qun (2025) on

immediate feedback enhancing motivation and language learning outcomes in online learning environments.

Reflection:

As noted by Francis (2023), computer-assisted reading interventions can be successful in improving reading comprehension when supported by a person teacher. That is why the outlier of one student still in the Frustration level made us realize that while AI-assisted reading interventions can be effective in improving the reading comprehension of Grade 8 learners, the presence of a teacher directly assisting learners will ensure that no student is left behind in the frustration zone. The MS Teams Reading Coach analytics showed that the learner had fewer reading attempts and less consistent participation compared to the other participants. This may have limited the learner's opportunity to practice, receive feedback, and improve comprehension skills during the intervention. The findings suggest that repeated practice, active participation, and teacher support are important factors in helping struggling readers improve their reading comprehension.

Action Research Question 4. Is there a significant difference between pre-test and post-test scores of learners using MS Teams Reading Coach intervention?

Table 4. T-test results of the Grade 8 learners before and after the MS Teams Reading Coach Intervention.

	Before	After	t	df	p
Mean	61.33%	79.33%	-2.714	14	0.0168
SD	23.2%	23.7%			
Alpha Level = 0.05					

Discussion:

Table 4. presents the statistical analysis compared the reading comprehension performance of Grade 8 learners before and after the implementation of the MS Teams Reading Coach. The mean scores increased from 61.33% to 79.33% indicating a 18-percentage point gain. To determine if the increase is significant, we use a Paired Samples T-Test. The statistical analysis resulted a t-value of -2.714 and a p-value of 0.0168, which is less than the 0.05 significance level. Indeed, the class mean of the comprehension scores between the pre-test and post-test is significantly different. A paired-samples t-test was conducted to compare pre-test and post-test scores. Results showed a statistically significant difference: $t(14) = -2.714$, $p = 0.0168$ ($\alpha = 0.05$). To determine the practical significance of this improvement, Cohen's d was calculated as 0.78 (large effect size). This indicates that the MS Teams Reading Coach intervention produced a substantial positive impact on the learners' reading comprehension scores despite the small sample size ($N=15$). These "data valleys" were analyzed using MS Teams interaction logs and learner feedback. The analysis shows that Session 7 involved a more abstract informational text, while Session 10 coincided with end-of-week fatigue. These findings highlight the importance of careful text selection and

spacing in AI-supported interventions. Targeted re-teaching and additional scaffolding were provided after these sessions.

The increase of reading comprehension performance complements the findings of Pindiprolu and Forbush (2023) that computer-assisted reading programs can effectively make measurable gains in reading comprehension of learners. Lapatha, Potot, and Saguin (2024) confirms that Microsoft's AI tools are effective across different grade levels in Philippine educational context particularly on students who require interventions to overcome reading difficulties. Since the MS Teams Reading Coach is interactive, Durano and Candilas (2023) confirms that such intervention that is interactive and engaging improves reading comprehension compared to purely traditional teacher-directed instruction.

Table 5. Comprehension Breakdown Table

Comprehension Type	Mean Score	Interpretation
Literal Questions	82%	Higher Performance
Inferential Questions	68%	Lower Performance

The comprehension breakdown shows that the participants performed better in literal comprehension questions compared to inferential questions. This suggests that while learners were able to identify directly stated information from the text, they still experienced difficulty in making interpretations, conclusions, and deeper connections from the reading passages. The findings support the observation that inferential comprehension remains challenging among struggling readers.

Reflection:

The positive shift of reading comprehension performance utilizing the MS Teams Reading Coach to the Grade 8 participants of Roxas National High School made us realize that AI-assisted interventions are indeed supplemental for teachers. Reflecting from the findings of Shafiee Rad (2024) that AI interventions help bridge the gap between decoding and higher-order self-regulation in reading prompted us to ponder that there is still a chance to improve the inferential skills of learners. This is because the intervention also finds that the participants tend to fall behind inferential items in the comprehension assessments. The measurable improvement in student reading comprehension came directly from the interactive mechanics of the MS Reading Coach feedback during oral reading sessions. This allowed learners to recognize and correct decoding errors in real time before moving forward. Student progress was also driven by the combination of consistent repeated practice and targeted teacher support. Spanning 13 structured sessions, the intervention provided the repetition necessary for struggling Grade 8 readers to build familiarity with text structures. However, digital features alone were not the sole reason for growth but human teacher mediation had a huge role. Interaction logs have revealed that the single participant who remained at the Frustration level had significantly fewer reading attempts and inconsistent participation which demonstrates that AI tools cannot operate in isolation. Teachers served a crucial scaffolding role by monitoring usage of the tool, adjusting text complexity (such as Session 7 and 10), providing mini-lessons, and encouraging students,

proving that AI serves as a powerful accelerator but the guidance of a teacher is as important.

Action Research Question 5. Based on the findings, what modifications can be made to improve the implementation of “Reading Coach” intervention?

Based on the findings, modifications that can be made to improve the implementation of the MS Teams Reading Coach intervention is using a staircase complexity approach rather than a linear progression approach which focuses on finishing the sessions rather than proficiency. In Marpaung’s (2022) review, linguistic proficiency are drivers of reading complexity, concretely we can modify the in between the sessions “bridge text passages” to learners who are struggling, this is to consider manageable cognitive load to ensure proficiency. Since the intervention added to the task requirements and responsibilities of the Grade 8 participants, modifying the scheduling of the intervention into a relaxed format rather than a congested format may ease their participation, this is a reflection from what the findings of Sultan et al. (2022), where their pre-test scores were low citing that interventions can add to the responsibilities of learners and can cause academic overload.

CONCLUSION AND RECOMMENDATIONS

Conclusions

Students’ reading comprehension levels can be improved using AI-assisted interventions such as the MS Teams Reading Coach. The study finds that while learners in the beginning show frustration and instructional levels of reading, providing interactive computer-based intervention with immediate feedback can address reading gaps.

The integration of MS Teams Reading Coach in the ARAL-Program of Roxas National High School has screened students and identified them as “Frustration”. However, their performance was instructional and implementation of the E-ARAL intervention had a significant increase in the reading comprehension performance of the Grade 8 students.

Recommendations

To fully realize the potential of MS Teams Reading Coach integrated in the ARAL-Program. The researchers observed the following limitation and possible recommendations:

1. The school must coordinate with the Information and Communications Technology (ICT) unit to ensure all DepEd accounts are working; this affected the original number of participants because of the broken DepEd accounts.
2. Prepare scaffolded text passages through mini-lessons between sessions to bridge reading gaps identified, ensuring the staircase complexity approach integration.
3. The school division must prepare localized reading materials so that the students can easily relate with the passages considering their needs and background.
4. Teacher-directed intervention such as guiding the students on how to use the platform and immediate feedback is still recommended rather than purely relying on AI-assisted feedback during the sessions.

5. Require all participants to participate in the reflection session to provide deep insights about their experiences which can be used as a qualitative data for a mixed-method design.

REFERENCES

- Ba, S., Yang, L., Yan, Z., Looi, C. K., & Gašević, D. (2025). Unraveling the mechanisms and effectiveness of AI-assisted feedback in education: A systematic literature review. *Computer Assisted Education Outcomes*, 1(1), 100284. <https://doi.org/10.1016/j.caeo.2025.100284>
- Basali, L. P. (2024). Reading comprehension levels and skills of Filipino Grade 8 students: A basis for catch-up Friday activities. *International Journal for Multidisciplinary Research (IJFMR)*, 6(1).
- Bloom, B. S. (1968). Learning for mastery. *Evaluation Comment (UCLA-CSIEP)*, 1(2), 1-12.
- Deluao, C. J., Bernal, D. J. E., Padillo, J. B. F., & Lim, R. A. (2022). Improving the reading comprehension of Grade 8 learners using 4Rs (read, retell, react, reflect) strategy. *International Journal of Humanities, Art and Social Studies (IJHAS)*, 7(1-2), 43-57.
- Department of Education. (2012). DepEd child protection policy (DepEd Order No. 40, s. 2012). <https://www.deped.gov.ph/2012/05/14/do-40-s-2012-deped-child-protection-policy/>
- Department of Education. (2018). The Philippine informal reading inventory manual 2018. Bureau of Learning Resources.
- Department of Education. (2024). Implementation of catch-up Fridays (DepEd Memorandum No. 001, s. 2024). <https://www.deped.gov.ph/2024/01/10/january-10-2024-dm-001-s-2024-implementation-of-catch-up-fridays/>
- Deschênes, O., & Meng, K. C. (2018). Quasi-experimental methods in environmental economics: Opportunities and challenges. In *Handbook of environmental economics* (Vol. 4, pp. 285-332).
- Fitri, W., Eliza, E., Irwandi, I., & Safitri, L. (2022). An analysis of students' difficulties in reading comprehension of descriptive text. *Journal of English Language and Education*. <https://jele.or.id/index.php/jele/article/view/276/158>
- Flippo, R. F. (2014). *Assessing readers: Qualitative diagnosis and instruction* (2nd ed.). Routledge. <https://www.reading.org/Libraries/books/assessing-readers--second-ed--chapter3.pdf>
- Francis, C. N. (2023). A computer-assisted reading intervention for high school students with reading difficulties (Doctoral dissertation, University of Arizona). University of Arizona Libraries. <http://hdl.handle.net/10150/669687>

- Haleem, A., et al. (2022). Understanding the role of artificial intelligence in personalized education. *Sustainable Operations and Computers*.
<https://doi.org/10.1016/j.susoc.2022.05.003>
- Lapatha, L. A., Potot, L. L., & Saguin, E. D. (2024). MS T.E.A.M.S: A recovery approach in improving English reading speed and accuracy. *American Journal of Multidisciplinary Research and Innovation*, 3(3), 85–89.
<https://doi.org/10.54536/ajmri.v3i3.2819>
- Ma, C. M., & Tang, K. S. (2018). Designing action research for instructional improvement: A framework for educational design. *Journal of Educational Action Research*, 26(3), 341–356.
- Marpaung, M. (2022). The complexity of reading comprehension processes: A review from reader, text, and cognitive process perspectives. *Litera*, 21(3), 391–405.
<https://doi.org/10.21831/ltr.v21i3.50428>
- Microsoft Education. (2021). Introducing reading progress: A new tool to help students build fluency. <https://educationblog.microsoft.com/en-us/2021/04/introducing-reading-progress-a-new-tool-to-help-students-build-fluency/>
- Misanes, C. H., & Pascual, E. (2023). Philippine informal reading inventory (Phil-IRI) performance of Grade 8 students: Basis for a reading intervention program. *Psychology and Education: A Multidisciplinary Journal*, 13(3).
- Mishra, P., Pandey, C. M., Singh, U., Gupta, A., Sahu, C., & Keshri, A. (2019). Descriptive statistics and normality tests for statistical data. *Annals of Cardiac Anaesthesia*, 22(1), 67–72.
- Pindiprolu, S. S., & Forbush, D. (2023). Effects of computer-assisted reading interventions on literacy skill gains of at-risk students during a summer break. *Journal of Educational Computing Research*, 52(3).
<https://doi.org/10.1177/00472395231226091>
- Pourhosein Gilakjani, A., & Sabouri, N. B. (2016). How can students improve their reading comprehension skill? *Journal of Studies in Education*, 6(2), 229.
- Qun, Y. (2025). Investigating the impact of immediate vs. delayed feedback timing on motivation and language learning outcomes in online education: Perspectives from feedback intervention theory. *Learning and Motivation*, 89, 102132.
<https://doi.org/10.1016/j.lmot.2025.102132>
- Stevens, E. A., Walker, M. A., & Vaughn, S. (2017). The effects of reading anxiety on reading comprehension. *Reading & Writing Quarterly*, 33(6), 503–515.
- Sung, Y. T., et al. (2016). The effects of integrating mobile devices with teaching and learning: A meta-analysis. *Computers & Education*.
<https://www.sciencedirect.com/science/article/pii/S0360131515300804>

- Sultan, et al. (2022). Enhancing students' performance through unified integrative task (UnIT): An action research. Planning and Research Unit, Division of Tangub City.
- Thomas, F. B. (2022). The role of purposive sampling technique as a tool for informal choices in social sciences in research methods. *Just Agriculture*, 2(5), 1–8.
- UNESCO. (2023). Global education monitoring report 2023: Technology in education. <https://www.unesco.org/gem-report/en/technology>
- World Bank. (2022). The state of global learning poverty: 2022 update. <https://www.worldbank.org/en/topic/education/brief/what-is-learning-poverty>
- Xu, M., Fralick, D., Zheng, J. Z., Wang, B., Tu, X. M., & Feng, C. (2017). The differences and similarities between two-sample t-test and paired t-test. <https://doi.org/10.11919/j.issn.1002-0829.217070>
- Yurko, N., & Protsenko, U. (2020). Reading comprehension: The significance, features, and strategies. In *Representation of educational achievements, mass media, and the role of philology in the modern system of sciences* (pp. 106–114). <https://doi.org/10.36074/rodmrfsn.ed-1.10>