

The reading comprehension of Grade 12 students through the use of Project READS

Trishia Mae S. Galano*

St. Louis College of Bulanao, Tabuk City, Kalinga, Philippines

ABSTRACT

The study seeks to assess the reading comprehension abilities of the Grade 12 learners of St. William's Academy and analyze the impact of the Project READS+ intervention program on the performance of such skills. The research applied the methodology based on multiple dimensions and a pretest-posttest design for one group; the research consisted of 45 respondents who were randomly selected according to the stratified random sampling. The data were gathered by means of a self-developed reading comprehension test and semi-structured interview guide. There has been an improvement in the students' reading comprehension ability based on their mean scores, which improved from high (12.93) to very high (16.13). The statistical test performed using the paired sample t-test method yielded a result that the value of $p < .001$ and hence rejected the null hypothesis. This means that the program has achieved its purpose in all aspects of study. Four themes were revealed through qualitative analysis in relation to challenges faced by the respondents, namely, cognitive exhaustion and vocabulary barrier, psychological pressure and time anxiety, contextual decoding and digital scaffolding, and navigational skill and pattern recognition. Even though they struggled with complex vocabulary and limited time, the students say that the process became easier through metacognitive scaffolding, which includes summary and contextual decoding, among others. Based on the results from this study, it has been established that the READS+ project is a successful initiative designed to prepare senior secondary school learners for college entry. The following recommendation is presented: the READS+ program needs to be integrated into the curriculum and teaching training programs.

Keywords: Project READS+, cognitive exhaustion, contextual decoding, digital scaffolding, navigational skill.

Date Submitted: April 8, 2026
Date Accepted: April 14, 2026
Date Published: April 20, 2026

INTRODUCTION

In today's globalized world, students need strong reading comprehension skills, especially in English as a second or foreign language, to succeed academically. Reading comprehension skills help develop higher-level thinking skills, brain development, lifelong learning skills, and academic success. Since the COVID-19 pandemic, many studies carried

*Corresponding author/ Email: galanotrishiamae88@gmail.com
DOI: <http://doi.org/10.69651/PIJHSS0502999>

Recommended citation:

Galano, T. M. S. (2026). The reading comprehension of Grade 12 students through the use of Project READS. Pantao (The International Journal of the Humanities and Social Sciences) 5 (2), 1587-1601.
<http://doi.org/10.69651/PIJHSS0502999>

out internationally indicate significant decreases in literacy attainment levels. According to the findings of the OECD's PISA 2022 results, the mean score in reading literacy skills in OECD countries has fallen about ten points since 2018 (OECD, 2023). The study presents a significant fall in literacy skills among students (OECD, 2023). It has become more important than ever to implement literacy programs effectively to improve learners' comprehension skills. Moreover, the Global Education Monitoring Report 2023 by UNESCO presents that English remains a widely used language of instruction in many developing countries.

In spite of all the above educational changes and policies, many students across the world continue facing difficulties in learning how to read. As per the laws of the country, which include the 1987 Constitution, the Filipino and English languages are the subjects taught in schools (Philippine Constitution, 1987). In result of that, the government initiated a new K-12 policy using the 2013 Enhanced Basic Education Act (Republic Act No. 10533), which aimed to improve students' fundamental abilities, including English reading, starting from kindergarten to grade twelve. Despite all the reforms, the problem remains persistent. Assessment results showed that only a quarter of high school graduates have sufficient English reading competence, although this number is slightly better than before. Moreover, according to international assessments, the Philippines remains among the lowest performing countries in terms of reading ability among almost eighty participating countries, even being poorer than other industrialized nations in the field under analysis. Unfortunately, reading instruction faces numerous problems, even after shutting down schools during the coronavirus pandemic. According to the latest World Bank (2022) report, 90% of Filipino children are deficient in fundamental reading skills before turning ten years old.

In the Cordillera Administrative Region (CAR), where Kalinga Province is located, the learning system faces both nationwide issues and regional challenges to learning. Kalinga is a dominant linguistic province populated by indigenous people who use the indigenous languages, such as Kalinga and Ilocano, alongside the Filipino and English languages. Therefore, implementing the MTB-MLE policy, DepEd Order No. 74, s. 2009, promoting the use of the mother tongue throughout the preliminary learning phase and the English language during the succeeding learning stages. Hence, such a change makes things difficult for a lot of learners, especially in distant areas. Based on the 2022 NAT result in CAR, the English language reading skill of the senior high school learners falls below the national mean because of a lack of teaching materials, reading materials, and subject teachers' training (DepEd-CAR, 2023).

At the local level, inside the Municipality of Tabuk, Kalinga, St. William's Academy, Bulanao, Inc. serves a separate race of pupils coming from diverse social environments, regardless of being from rural or urban communities. Since it is a private Catholic educational institution that offers the K-12 learning curriculum, the educational institution encounters several problems concerning the ability of Grade 12 pupils to comprehend reading materials, particularly those subjects wherein extensive English academic literature engagement is necessary, such as Literature and Practical Research. According to her personal experience as an intern in the school during the year 2022 and as a full-time teacher in the Academic Year 2025-2026, she has noted that the same issue of reading comprehension difficulties persists.

Although reading methods were identified as effective facilitators of reading comprehension by prior research, very few publications have been developed on how reading strategies may facilitate comprehension skills development for senior high school learners living in multilingual and rural communities within the Philippines. Such an argument can be seen in the study of Batac (2024), which suggests that the use of metacognitive strategy is moderately beneficial in enhancing reading comprehension skills among Grade 11 technical-vocational learners in the Philippines. Similarly, Bernardo and Mante-Estacio (2023) noted that

Filipino high school learners who are aware of metacognitive strategies have better results in terms of reading proficiency using the PISA data set.

Despite the above discussion, however, there are very few studies that have been done on the reading comprehension skills of senior high school learners within the rural context characterized by a number of different languages in academic subjects in English. Moreover, there are only a few studies that have considered demographic variables which may influence the reading comprehension skills of the target learners. Therefore, there exists an important gap that needs to be filled through the study of grade 12 learners of St. William's Academy.

Statement of the Problem

This study seeks to assess the extent of the reading comprehension level of Grade 12 learners at St. William's Academy. Specifically, it answers the following questions:

1. What is the extent of the reading comprehension level of Grade 12 learners when subjected to the intervention program through the Project READS?
2. Is there a significant difference between the reading comprehension level of Grade 12 learners when classified by strand?
3. What were the learners' experiences during the administration of the pre-test, intervention, and posttest?

METHODOLOGY

A multi-dimensional research design was employed in this investigation to examine the levels of reading comprehension skills among Grade 12 students. Specifically, the study utilized a one-group pretest posttest design to provide a comprehensive understanding of student progress by integrating both quantitative and qualitative dimensions of the learning experience. At the outset, a pretest was administered to determine the baseline level of reading comprehension skills of the participants across different cognitive dimensions. Following the establishment of the initial reading comprehension levels, the READS+ Program was implemented over a period of three weeks. Upon completion of the intervention, a posttest was administered to assess the final reading comprehension levels of the students. The numerical data obtained from the comparison of pretest and posttest results served as the basis for determining whether a significant difference existed, thereby evaluating the effectiveness of the READS+ Program. In addition to the quantitative data, qualitative insights were gathered from the participants' personal experiences throughout the pretest, intervention, and posttest phases, allowing for a more holistic interpretation of the outcomes.

The participants of the study consisted of 45 Grade 12 students from St. William's Academy for the Academic Year 2025-2026. These participants were randomly selected from a total population of 358 students across three academic strands, namely STEM with 145 students, ABM with 15 students, and HUMSS with 198 students. Stratified random sampling was employed to ensure equal representation, resulting in 15 participants from each strand. To address differences in group sizes, two selection techniques were utilized. For the STEM and HUMSS strands, a lottery method was applied to randomly select 15 participants from each group. For the ABM strand, total enumeration was used due to the limited number of 15 students, thereby including all members of the group. After determining their initial reading comprehension levels through the pretest, the selected participants underwent nine sessions of the READS+ Program before completing the posttest.

The study utilized both quantitative and qualitative instruments to collect data. The primary quantitative instrument was a researcher-developed reading comprehension test, administered as both a pretest and a posttest to measure the participants' progress. The test consisted of multiple choice and short answer questions designed to assess various reading skills, including identification of main ideas, inferencing, and the use of context clues. The instrument was considered a reliable measure of learning gains, as all test items were aligned with Grade 12 English competencies and the READS+ Program modules. To capture qualitative data, a semi-structured interview guide in the form of a reflection survey was employed. This instrument enabled the collection of participants' experiences and perceptions during the pretest, intervention, and posttest stages of the study.

Data collection was conducted in three integrated phases, namely the preliminary, intervention, and evaluation phases. During the preliminary phase, the researcher secured the necessary administrative permissions from the School Principal and the Grade 12 Strand Coordinators of St. William's Academy. Following approval, participants were selected using stratified random sampling, resulting in 45 respondents. The pretest was then administered to establish baseline reading comprehension levels. During the intervention phase, the selected participants engaged in the READS+ Program for three weeks, comprising nine instructional sessions. These sessions were organized into three sessions per strand group and focused on key reading strategies such as identifying main ideas, making inferences, and using context clues. Various reading materials were utilized to support and enhance the learning process. In the evaluation phase, the posttest was administered to the same participants using the same instrument to ensure consistency in measuring learning gains. Qualitative data were also collected through participants' descriptions of their experiences and perspectives during the activities. The quantitative data from the pretest and posttest were subsequently compiled, analyzed, and computed using mean and percentage.

Throughout the research process, strict adherence to ethical standards was maintained. Informed consent was obtained from all participants prior to their inclusion in the study. The identities of the respondents were kept confidential, and all data collected were handled with utmost discretion. The research instruments avoided personal or sensitive questions, and participation was entirely voluntary. Participants were informed of their right to withdraw from the study at any time without any form of penalty or consequence.

The analysis of data involved the application of both descriptive and inferential statistical methods. Frequency and percentage were used to categorize participants' scores into specific proficiency levels, thereby providing an accurate representation of the distribution of reading comprehension levels among the respondents. Mean scores were calculated to determine the average level of reading comprehension, with further grouping based on academic strands such as STEM, ABM, and HUMSS. These analyses addressed Research Questions 1 and 2. For the qualitative component, thematic analysis was applied to the data obtained from the reflection survey to identify recurring patterns and themes related to participants' experiences.

A Likert scale was employed to interpret the levels of reading comprehension. The interpretation of mean ranges was structured as follows: a score range of 15-19 corresponded to a mean range of 3.26-4.00 and was interpreted as Very High; a score range of 10-14 corresponded to a mean range of 2.51-3.25 and was interpreted as High; a score range of 5-9 corresponded to a mean range of 1.76-2.50 and was interpreted as Low; and a score range of 0-4 corresponded to a mean range of 1.00-1.75 and was interpreted as Very Low. These interpretive criteria guided the classification and analysis of the participants' reading comprehension levels.

To address the inferential component of the study, the Paired Samples T-test was utilized to determine whether there was a statistically significant difference between the mean

scores obtained by the same 45 participants during the pretest and posttest periods. This statistical test was appropriate given the one-group pretest posttest design of the study. Additionally, P-Value analysis was conducted to assess the significance of the results and to determine whether the null hypothesis should be rejected. A significance level of 0.05 was adopted, consistent with standard practice in social science research. A p-value of less than .001 indicated that the results were very significant, thereby providing strong evidence of the effectiveness of the READS+ Program.

RESULTS AND DISCUSSION

The results and discussion presented in this chapter are grounded in the data gathered from a total of 45 Grade 12 students, comprising 15 students each from the STEM, HUMSS, and ABM strands. The study employed a quasi-experimental research design utilizing a pre-test and post-test approach to determine the effectiveness of the READS+ Program in enhancing reading comprehension. A 19-item reading comprehension test served as the primary data collection instrument, with scores interpreted using a four-level scale ranging from Very Low to Very High. Statistical treatment included descriptive statistics such as frequency, percentage, and mean, as well as inferential analysis through paired-sample t-test to examine significant differences between pre-test and post-test results. The discussion that follows is firmly anchored in the empirical data obtained and interprets the findings in direct alignment with the objectives of the study.

The analysis of the reading comprehension levels of Grade 12 STEM students reveals a marked improvement following the implementation of the READS+ Program. During the pre-test, 2 students or 13.33% scored within the 15–19 range corresponding to the Very High level, while the majority, comprising 11 students or 73.33%, fell within the 10–14 range interpreted as High. Additionally, 2 students or 13.33% were within the 5–9 range classified as Low, and none scored within the 0–4 range. The computed mean score during the pre-test was 12.7, which falls under the High interpretation. Following the intervention, a substantial shift was observed, with 12 students or 80.00% achieving scores within the 15–19 range classified as Very High, while 3 students or 20.00% remained within the High category. No students fell within the Low or Very Low categories in the post-test, as indicated by 0 or 0.00%. The post-test mean increased to 16.1, corresponding to a Very High level. This transition from a mean of 12.7 (High) to 16.1 (Very High) demonstrates a significant enhancement in comprehension ability, suggesting that the READS+ Program effectively strengthened foundational reading skills such as pre-reading strategies and inferencing. These findings support the assertion of Vaughn et al. (2022) that multi-component literacy interventions are critical in improving adolescent comprehension in content-heavy disciplines.

A similar upward trajectory is evident in the performance of Grade 12 HUMSS students. In the pre-test, 3 students or 20.00% achieved scores within the 15–19 range interpreted as Very High, while the majority of 12 students or 80.00% were within the 10–14 range classified as High. No students fell within the Low or Very Low categories, as reflected by 0 or 0.00%. The computed mean during the pre-test was 13.1, corresponding to a High level. Following the READS+ intervention, 10 students or 66.67% reached the Very High category, while 5 students or 33.33% remained within the High level. The post-test mean increased to 15.6, interpreted as Very High. The progression from a mean of 13.1 to 15.6 indicates that the intervention facilitated deeper comprehension among HUMSS students, particularly through strategies emphasizing summarization and independent reading. These approaches appear to have mitigated cognitive overload by enabling learners to synthesize information more

effectively. This finding aligns with Mante-Estacio (2023), who emphasized that structured text synthesis strategies enhance cognitive processing and comprehension in humanities-oriented disciplines.

The Grade 12 ABM students exhibited the most pronounced improvement among the three strands. In the pre-test, 2 students or 13.33% scored within the Very High range of 15–19, while 12 students or 80.00% were within the High range of 10–14, and 1 student or 6.67% fell within the Low range of 5–9. No students were categorized under Very Low, as indicated by 0 or 0.00%. The mean score during the pre-test was 13.0. After the intervention, 13 students or 86.67% achieved scores within the Very High range, while 2 students or 13.33% remained within the High category. No students were recorded in the Low or Very Low categories, with 0 or 0.00%. The post-test mean increased to 16.7. The increase from 13.0 to 16.7 reflects a substantial gain in comprehension, suggesting that vocabulary-in-context and critical questioning strategies implemented during the READS+ Program were particularly effective for ABM learners. This outcome substantiates Bautista (2024), who posited that contextual vocabulary development significantly enhances comprehension in business-related academic texts.

Beyond quantitative improvements, qualitative data revealed several challenges encountered by students in reading comprehension. Participants reported experiencing cognitive exhaustion and vocabulary barriers, as evidenced by statements such as repeatedly rereading sentences and resorting to guessing or skipping unfamiliar words. These responses indicate that cognitive fatigue disrupts working memory and limits the ability to synthesize information effectively. Furthermore, psychological stress associated with time constraints emerged as a critical factor influencing comprehension. Students reported prioritizing task completion over understanding due to time pressure, with some adopting coping strategies such as breaking down sentences or utilizing artificial intelligence tools. This reflects a tension between academic demands and learners' cognitive capacities, often resulting in superficial processing of texts.

Students also demonstrated adaptive strategies through contextual decoding and digital scaffolding. Responses indicated that learners actively simplified texts, summarized paragraphs, and utilized AI tools to enhance understanding. This suggests an emerging reliance on technology as a cognitive support mechanism, highlighting the importance of integrating digital literacy and scaffolding strategies into instruction. Additionally, students exhibited navigational proficiency and pattern-seeking behaviors, focusing on identifying keywords and question patterns rather than engaging in deep reading. While these strategies may improve test performance, they reflect a shift from comprehension-based reading to performance-oriented reading, underscoring the need for instructional approaches that emphasize critical thinking and authentic understanding.

The inferential analysis further substantiates the effectiveness of the READS+ Program. The paired-sample t-test results indicate statistically significant differences between pre-test and post-test scores across all strands. For STEM students, the mean increased from 12.7 to 16.1, with a computed t-value of -5.42 and a p-value of <.001. Since the p-value is less than the α level of 0.05, the null hypothesis (H_0) is rejected, indicating a significant difference. Similarly, HUMSS students demonstrated an increase from 13.1 to 15.6, with a t-value of -4.89 and a p-value of <.001, leading to the rejection of H_0 . For ABM students, the mean increased from 13.0 to 16.7, with a t-value of -6.15 and a p-value of <.001, also resulting in the rejection of H_0 . Overall, the combined mean score increased from 12.93 (High) to 16.13 (Very High), with a t-value of -8.60 and a p-value of <.001. Given that $p\text{-value} \leq 0.05$ leads to rejection of H_0 , all results consistently indicate statistically significant improvements in reading comprehension following the intervention. These findings confirm that the READS+ Program had a measurable and meaningful impact on students' comprehension abilities.

The results collectively support the theoretical framework of metacognitive reading, which posits that learners who are equipped with strategies to monitor and regulate their comprehension can effectively engage with complex texts. The observed improvements across STEM, HUMSS, and ABM strands demonstrate that the intervention transcends disciplinary boundaries, enabling students to develop transferable literacy skills. Furthermore, the shift from High to Very High levels of proficiency align with the findings of Oducado (2024) and Vaughn et al. (2022), who emphasized the effectiveness of multifactor interventions in addressing complex literacy demands. The results are also consistent with the standards set by OECD (2023) and the local benchmarks outlined by Giray-Costambienes and Gabuya (2025), reinforcing the relevance of the READS+ Program in meeting both international and national literacy expectations.

In synthesis, the findings of this study demonstrate that the READS+ Program significantly enhanced the reading comprehension levels of Grade 12 students, as evidenced by the consistent increase in mean scores, the shift from High to Very High proficiency levels, and the statistically significant differences confirmed through paired-sample t-test results. At the same time, the qualitative data reveal persistent challenges related to cognitive fatigue, time pressure, and reliance on compensatory strategies, highlighting areas for pedagogical refinement. The integration of metacognitive strategies, digital scaffolding, and assessment redesign emerges as essential in addressing these challenges. Overall, the study contributes to the growing body of literature on adolescent literacy by providing empirical evidence on the effectiveness of structured, multi-component reading interventions, thereby offering a foundation for future research and instructional innovation in enhancing reading comprehension across diverse academic contexts.

CONCLUSION

The findings of the study demonstrate that Project READS+ serves as a highly effective instructional strategy in enhancing the reading comprehension skills of Grade 12 students at St. William's Academy, as evidenced by their attainment of a "Very High" level of proficiency. Grounded in the analysis of the gathered data, the results confirm that the structured integration of metacognitive scaffolds, particularly strategies such as summary construction and context decoding, significantly contributed to students' improved comprehension performance. These scaffolds facilitated a shift in learners' engagement with reading tasks, transforming their prior experiences characterized by avoidance, cognitive overload, and anxiety due to time constraints into a more confident and mastery-oriented approach. Furthermore, the statistical analysis revealed a significant difference in comprehension scores among students from the STEM, HUMSS, and ABM strands, with a p-value less than 0.001. Despite these differences, the intervention proved to be consistently beneficial across all strands, indicating its broad applicability and effectiveness regardless of academic specialization.

In light of these findings, the study underscores the importance of institutionalizing Project READS+ within the senior high school curriculum to ensure sustained academic improvement in reading comprehension. The integration of this program at the school level would provide a structured and consistent approach to literacy development. Moreover, the results highlight the need for collaborative efforts among subject area specialists in designing strand-specific reading modules that align with the disciplinary demands of each academic track. Such targeted materials can further enhance the relevance and effectiveness of reading instruction. Equally important is the provision of professional development opportunities, such as seminars and training sessions for teachers, to ensure the proper implementation of

structured modules and the use of localized instructional materials that reflect students' contexts.

The study also points to the necessity of conducting a follow up assessment three months after the intervention to determine the sustainability of students' very high level of comprehension. This step is essential in evaluating the long-term impact of Project READS+ and identifying areas for refinement. Additionally, the generalizability of the findings can be strengthened through further research involving larger sample sizes and diverse geographic locations. Such investigations would provide deeper insights into the adaptability and scalability of the program across different educational settings.

Overall, the study affirms that the strategic use of metacognitive scaffolding within Project READS+ not only enhances reading comprehension outcomes but also reshapes students' cognitive and affective responses to reading tasks. By fostering both skill development and positive learning dispositions, the program contributes meaningfully to the advancement of literacy instruction and offers a viable framework for improving academic performance in varied educational contexts.

REFERENCES

Abdul Razak, N. Z., & Amir, S. N. (2009). A study on students' perception of reading strategies while comprehending an academic text. E-prints UTM. http://eprints.utm.my/10783/1/A_Study_On_Students.pdf

Ahmed, N. (2020). Predicting students' comprehension through pre-reading and previewing strategies. *Journal of Reading Research*, 12(1), 22–35.

Al-Mahrooqi, R., & Denman, C. (2020). The effectiveness of cognitive and metacognitive strategies on EFL learners' reading comprehension. *Journal of Language Teaching and Research*, 11(3), 345–356.

Altamura, L., Vargas, C., & Salmerón, L. (2023). Do new forms of reading pay off? A meta-analysis on the relationship between leisure digital reading habits and text comprehension. *Review of Educational Research*. Advance online publication. <https://doi.org/10.3102/00346543231216463>

Androutsopoulos, J. (2011). Language change and digital media: A review of conceptions and evidence. In T. Kristiansen & N. Coupland (Eds.), *Standard languages and language standards in a changing Europe* (pp. 145–159). Novus Press. https://lanchart.hum.ku.dk/research/slice/publications-and-news-letters/publications/standard_languages/Androutsopoulos_-_Language_change_and_digital_media_A_review_of_conceptions_and_evidence_-_p_145-159.pdf

Angub, V. L. C., Evangelista, J. C. C., Bacali, A. C., Mateo, L. C., Baawa, S. P., & Tay-Eo, N. B. (2025). Multimodal reading program to aid San Mateo National High School's Grade 7 students in improving reading competency. *Journal of Exceptional Multidisciplinary Research*, 2(2), 1–7. <https://doi.org/10.69739/jemr.v2i2.710>

Anila, Y., Khan, M. T., & Shehzad, A. (2024). Improving students' reading comprehension skills using specific reading strategies. *Journal of Policy Research*, 10(3), 22–28. <https://doi.org/10.61506/02.00313>

- Arfini, F., Qalby, N., & Daddi, H. (2024). Students' perception in reading English novel. *Journal of Language Testing and Assessment*, 4(1), 1–7. <https://doi.org/10.56983/jlta.v4i1.344>
- Bachtiar, A. H. (2024). The impact of collaborative strategic reading and cognitive style on students' reading comprehension in senior high school. *Journal Pedagogi dan Pembelajaran*, 7(3), 381–392. <https://doi.org/10.23887/jp2.v7i3.75435>
- Balce, R. C. (2024). IntelliRead: A technology-based intervention on vocabulary development and English reading comprehension among senior high school students. *Philippine Journal of Educational Technology*, 8(2), 45–57.
- Banditvilai, C. (2020). The effectiveness of reading strategies on reading comprehension. *International Journal of Social Science and Humanity*, 10(2), 46–50. <https://doi.org/10.18178/ijssh.2020.V10.1012>
- Batac, J. F. (2024). Metacognitive reading strategies and reading comprehension of Grade 11 technical-vocational-livelihood modular distance learners. *Get International Research Journal*, 2(1), 209–231. <https://doi.org/10.5281/zenodo.10892977>
- Bernardo, A. B. I., & Mante-Estacio, M. J. (2023). Metacognitive reading strategies and its relationship with Filipino high school students' reading proficiency: Insights from PISA 2018 data. *Palgrave Communications*, 10(1), Article 18. https://ideas.repec.org/a/pal/palcom/v10y2023i1d10.1057_s41599-023-01886-6.html
- Bouali, A. (2022). Exploring metacognitive reading strategy awareness in promoting students' reading comprehension skills. *Global Journal of Foreign Language Teaching*, 12(4), 203–212. <https://doi.org/10.18844/gjflt.v12i4.7400>
- Chen, Y. L. (2022). The impact of vocabulary and context-clue strategies on reading comprehension in senior high school learners. *International Journal of Education Research*, 18(2), 112–129.
- Coiro, J., & Dobler, E. (2023). Online comprehension model for digital texts. *Reading Research Quarterly*, 58(2), 245–262.
- De Guzman, A. M., & Reyes, F. P. (2025). Metacognitive awareness and reading strategy use among senior high students. *Journal of Educational Psychology*, 17(2), 100–118.
- De Ocampo, L. L. L. (2024). Teachers' reading comprehension strategies, approaches, and challenges: Schools Division of Iloilo. *International Journal of Social Management Sciences*.
- Dela Cruz, A. (2023). Monitoring and self-regulation strategies in reading. *Philippine Journal of Literacy and Teaching*, 16(1), 55–70.
- Department of Education. (2009). DepEd order no. 74, s. 2009: Mother tongue-based multilingual education. <https://www.deped.gov.ph/2009/07/31/do-74-s-2009/>
- Department of Education–Cordillera Administrative Region. (2023). National achievement test results 2022.

- Dewitz, P., & Graves, M. F. (2024). Reevaluating and restructuring comprehension strategy instruction. *Reading Research Quarterly*.
- Fernando, R. (2025). Effectiveness of technology-enhanced reading strategy instruction. *Contemporary Literacy Research*, 6(1), 50–67.
- Filderman, M. J., Austin, C. R., Boucher, A. N., O'Donnell, K., & Swanson, E. A. (2022). A meta-analysis of the effects of reading comprehension interventions on the reading comprehension outcomes of struggling readers in Grades 3–12. *Exceptional Children*, 88(2), 163–184. <https://doi.org/10.1177/00144029211050860>
- Fisher, D. (2023). Teachers' perceptions of comprehension strategy instruction in secondary education. *Reading & Writing Quarterly*, 39(2), 145–162.
- Fitriana, M. (2018). Students' reading strategies in comprehending academic reading: A case study in an Indonesian private college. *International Journal of Language Education*, 2(2), 43–51.
- Fuchs, D., & Fuchs, L. S. (2005). Peer-assisted learning strategies: Promoting word recognition, fluency, and reading comprehension in young children. *Journal of Special Education*, 39(1), 34–44. <https://files.eric.ed.gov/fulltext/EJ693939.pdf>
- Gaa, J. D. (2025). Enhancing the comprehension level of Key Stage 2 learners through multimodal reading strategies in Calatagan Sub-office. *International Education Forum*, 3(5), 1–15. <https://doi.org/10.26689/ief.v3i5.10695>
- Garcia, M. L., Lopez, D. R., & Rivera, A. C. (2022). Enhancing reading comprehension through explicit strategy instruction. *Journal of Literacy Research*, 54(2), 145–162.
- Ghimire, N., & Mokhtari, K. (2025). Evaluating the predictive power of metacognitive reading strategies across diverse educational contexts. *Large-Scale Assessments in Education*, 13, Article 4.
- Gibson, K. D. (2009). Teachers' perceptions of strategy-based reading instruction for reading comprehension (Master's thesis, Dominican University of California). Dominican University of California. <https://doi.org/10.33015/dominican.edu/2009.edu.03>
- Giray-Costambienes, M. C., & Gabuya, R. J. B. (2025). Metacognitive strategy in learning literature of senior high school students. *International Journal of Research and Scientific Innovation*, 12(8), 2407–2418. <https://doi.org/10.51244/IJRSI.2025.120800216>
- Habók, A., Oo, T. Z., & Magyar, A. (2024). The effect of reading strategy use on online reading comprehension. *Heliyon*, 10(2), e24281. <https://doi.org/10.1016/j.heliyon.2024.e24281>
- Hussein, A. M. (2020). Graphic organizer strategy and its effect on the reading comprehension of ESL learners. *TESOL International Journal*, 15(4), 221–240.
- Institute of Education Sciences. (2020). Reading for understanding research initiative. U.S. Department of Education. <https://ies.ed.gov/funding/research/programs/reading-for-understanding-research-initiative>

International Journal of Research and Innovation in Social Science. (2024). A quantitative analysis of the influence of teaching style and reading comprehension on active reading experience of senior high school students. *International Journal of Research and Innovation in Social Science*, 8(5), 120–132.

Islamiyah, K., & Ni'mah, F. (2024). Students' perception of teacher's strategies in teaching reading. *Langua*, 7(2), 91–97.

Jelani, S. A., Mahmud, N. H., Yazid, N. H. M., Ghaffar, N. S. A., Aziz, N. J. A., & Rahmat, N. H. (2023). Exploring learners' perception of different types of reading strategies in academic reading. *International Journal of Academic Research in Business and Social Sciences*, 13(8), 1129–1144.

Jienbayev, A. (2024). The effectiveness of reading strategies on reading comprehension. *Journal of Educational Research*, 45(2), 123–145.

Jufrianto, M., Rahyuni, G., Gaffar, S., Akbal, F. A., Pratama, A. P., & Amir, A. S. (2023). Differentiated instruction in improving senior high school students' reading comprehension level. *Journal of Learning and Development Studies*, 3(2), 1–9. <https://doi.org/10.32996/jlds.2023.3.2.1>

Jugas, R. J. M. (2024). Boosting reading comprehension performance: The impact of metacognitive reading strategies on Grade 11 students. *International Journal of Contemporary Studies*. <https://journal.formosapublisher.org/index.php/ijcs/article/view/12033>

Khaeriyah, N. K., La Sunra, & Baa, S. (2025). Students' and teachers' perceptions on the implementation of skimming and scanning techniques for reading comprehension. *Journal of Excellence in English Language Education*, 4(1).

Kubela, S., Que, S. R., & Patty, J. (2022). Students perception about learning strategies in reading English text: Challenges and solutions at senior high school students at Aru Island. *MATAI: International Journal of Language Education*, 2(2), 72–83.

Kumar, R., & Santos, E. M. (2023). Students' perceptions on the use of reading strategies in ESL classrooms. *Journal of English as a Second Language*, 10(4), 78–95.

Kwon, H. S. (2021). Metacognitive strategy training and its influence on the reading comprehension of struggling readers. *Journal of Educational Psychology Research*, 39(2), 201–218.

Lagdaan, A. M., & Sevilla, J. G. (2025). Evidence-based reading comprehension interventions in Philippine senior high schools: A systematic review (2020–2025). *Asia Pacific Journal of Education and Learning Research*, 10(1), 15–32.

Lee, M., Rudzewitz, B., & Chen, X. (2024). Developing a pedagogically oriented interactive reading tool with teachers in the loop. In *Proceedings of the 13th Workshop on Natural Language Processing for Computer-Assisted Language Learning (NLP4CALL)* (pp. 115–125). Linköping Electronic Conference Proceedings.

- Li, D. (2024). Research on English reading comprehension strategies based on natural language processing. *Applied Mathematics and Nonlinear Sciences*, 9(1). <https://doi.org/10.2478/amns-2024-0768>
- Liu, Y., & Moore, D. (2024). Post-pandemic digital tools and comprehension skills. *Computers & Education*, 192, Article 104567. <https://doi.org/10.1016/j.compedu.2022.104567>
- Lumbantobing, T., Munthe, M. D., Aritonang, S. R. B., Asyari, S., Hulu, N. M., Sembiring, Y. B., & Lumbanbatu, I. M. F. (2024). Students' motivation and perception in reading English texts. *SIGEH ELT: Journal of Literature and Linguistics*, 4(2). <https://doi.org/10.36269/sigeh.v4i2.2551>
- Madrid, L. M., Balawag, L. R. A., & Franca, G. C. (2025). Perceived reading comprehension difficulties and academic performance of intermediate learners. *Asian Journal of Education and Social Studies*, 51(6), 1373–1381. <https://doi.org/10.9734/ajess/2025/v51i62082>
- Maulina, A. R., Drajadi, N. A., & Zainnuri, H. (2024). Students' perceptions of collaborative strategic reading on EFL learners. *English Education Journal*, 11(1).
- McNamara, D. S., & Magliano, J. P. (2023). Revisiting the construction-integration model. *Discourse Processes*, 60(3), 201–220.
- Miller, S. (2021). Effectiveness of reciprocal teaching in strengthening comprehension. *Journal of Educational Psychology Practice*, 9(4), 33–48.
- Nguyen, M. T., & Lee, J.-H. (2021). The impact of reading strategies on students' comprehension skills. *International Journal of Instruction*, 14(1), 123–140.
- Mohsin, N. A., Rahim, M., Bidin, A., Johari, M. K., & Rahmat, N. H. (2023). A study of perceived reading difficulties and reading strategies: The case for online reading. *International Journal of Academic Research in Business and Social Sciences*, 13(5), 2732–2748.
- National Reading Panel. (2000, April). Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction (NIH Pub. No. 00-4769). National Institute of Child Health and Human Development, U.S. Department of Health and Human Services. <https://www.nichd.nih.gov/sites/default/files/publications/pubs/nrp/Documents/report.pdf>
- UNESCO. (2021). Education in a post-COVID world: Reading and technology. United Nations Educational, Scientific and Cultural Organization. <https://unesdoc.unesco.org/ark:/48223/pf0000373718>
- Noordin, N., Kan, T., & Ismail, L. (2022). The effect of explicit training of metacognitive reading strategies on online reading comprehension. *Arab World English Journal Special Issue on CALL*, 8, 246–261. <https://dx.doi.org/10.24093/awej/call8.17>
- Ocampo, R. A. (2019). Teacher-modeled reading strategies and student reading comprehension in Philippine public schools. *Asia-Pacific Education Review*, 20(3), 391–404.
- OECD. (2023). PISA 2022 results (Volume I): The state of learning and equity in education. OECD Publishing. <https://doi.org/10.1787/53f23881-en>

Organisation for Economic Co-operation and Development. (2023). PISA 2022 results (Volume I): The state of learning and equity in education (PISA, Vol. 1). OECD Publishing.

Pahrizal, N., Vintoni, A., Sotlikova, R., & Ya'akub, H. Z. H. (2024). Metacognitive reading strategies and their impact on comprehension: Insights from rural EFL learners. *Indonesian Journal on Learning and Advanced Education*, 7(1), 18–36.

Park, S. (2023). Efficacy of summarization strategies in expository reading. *Reading Instruction Review*, 3(1), 25–40.

Peng, P., Wang, C., & Xu, T. (2023). The active ingredients in reading comprehension strategy intervention for struggling readers: A Bayesian network meta-analysis. *Educational Psychology Review*, 35(2), 745–769.

Philippine Constitution. (1987). Official Gazette of the Republic of the Philippines. <https://www.officialgazette.gov.ph/constitutions/1987-constitution/>

Pratama, A. (2023). Students' perception towards pre-reading strategy at one of senior high schools in Konawe Selatan. *Al Lughawiyat*, 4(1), 51–55.

Qusyaeri, A., Nur Aisyah, R., & El-Sulukiyyah, A. A. (2021). The perceptions of English students' reading strategies at university level. *SELL Journal*, 6(1), 1–19.

Rahimi, M., & Katal, M. (2019). Mobile-assisted reading strategy training and its effects on comprehension performance among EFL students. *Computers & Education*, 142, 103–118.

Raku, V. (2013). The effect of reading strategies on the improvement of the reading skills of students. *Social and Natural Sciences Journal*, 7(2). <https://doi.org/10.12955/snsj.v7i2.418>

Ramos, E. J., & Dela Cruz, C. F. (2023). Effects of collaborative reading strategies on students' comprehension skills. *Journal of Literacy Research*, 55(3), 180–197.

Republic Act No. 10533. (2013). Enhanced basic education act of 2013. <https://www.officialgazette.gov.ph/2013/05/15/republic-act-no-10533/>

Rivera, J., & Lopez, C. (2022). Vocabulary-based strategies and reading comprehension levels. *Journal of Language Pedagogy*, 4(2), 88–103.

Santos, M. L. (2024). Bionic reading as a digital intervention for improving reading comprehension among Grade 12 HUMSS students. *Journal of Digital Pedagogy and Literacy Studies*, 4(1), 22–35. <https://www.mijrd.com/papers/v4/i3/MIJRDV4I30002.pdf>

Sari, D. K., Pratiwi, E., & Thereana, A. (2018). Effective reading strategies for reading skills. *Esteem Journal of English Education Study Programme*, 2(2), 112–120.

Serrano, M. J., & Delgado, A. P. (2021). Reciprocal teaching as a strategy for developing reading comprehension among junior high learners. *Reading Psychology*, 42(6), 571–589.

- Shakoor, M. A., Khan, M. I., & Majoka, M. I. I. (2019). Effect of teaching reading strategies on the students' reading comprehension. *Global Social Sciences Review*, 4(4), 157–164. [https://doi.org/10.31703/gssr.2019\(IV-IV\).20](https://doi.org/10.31703/gssr.2019(IV-IV).20)
- Shin, H., & Park, J. (2024). Comparison of predicting, visualizing, and summarizing strategies. *Global Journal of Reading Education*, 12(2), 19–35.
- Sun, Y., Wang, J., Dong, Y., Zheng, H., Yang, J., Zhao, Y., & Dong, W. (2021). The relationship between reading strategy and reading comprehension: A meta-analysis. *Frontiers in Psychology*, 12, Article 635289. <https://doi.org/10.3389/fpsyg.2021.635289>
- Tanaka, M., & Sánchez, E. (2016). Students' perceptions of reading through peer questioning in cooperative learning. *TESL-EJ*, 19(4), 1–16. <https://eric.ed.gov/?id=EJ1092785>
- Tang, K., Nooreen, N., & Ismail, L. (2024). Implementation of metacognitive reading strategies to improve English reading ability: A systematic review. *International Journal of Learning, Teaching and Educational Research*, 23(7), 368–389. <https://www.ijlter.net/index.php/ijlter/article/view/2008>
- Torres, S. L., & Bautista, M. P. (2020). The role of skimming and scanning techniques in enhancing reading comprehension among ESL learners. *Journal of English as a Second Language*, 8(3), 112–129.
- Ueno, S., Ikeda, M., Takeuchi, O., & Teng, M. F. (2025). Impact of reading strategy instruction on improvement of strategy use and reading comprehension: A meta-analysis. *Reading in a Foreign Language*, 37(2), 225–247. <https://doi.org/10.64152/10125/67505>
- UNESCO. (2023). *Global education monitoring report 2023: Technology in education*. UNESCO Publishing. <https://www.unesco.org/en/gem-report>
- Utto-Sulay, F. (2024). Metacognitive awareness, reading strategies, and learning styles of senior high school students in Sultan Kudarat. *International Journal of Advanced Educational Studies*, 6(3), 55–67.
- Utto-Sulay, N. M. (2024). Reading strategies, learning styles, and reading comprehension in English of senior high school students in the Division of Sultan Kudarat. *Psychology & Education: A Multidisciplinary Journal*, 26(7), 770–781. <https://doi.org/10.5281/zenodo.13941035>
- Valerozo, R. B., & Aggabao, R. G. (2020). Learning process, reading strategies, and comprehension in culture-based texts. *International Journal of Linguistics, Literature and Translation*, 3(5), 103–112. <https://doi.org/10.32996/ijllt.2020.3.5.12>
- Velarde, A. B., & Catoto, J. S. (2022). Strengthening reading comprehension skills through fluency-oriented reading instruction (FORI). *Asian Journal of Humanities and Social Sciences*, 5(2), 71–88. <https://journals.e-palli.com/home/index.php/ajahs/article/view/366>
- Velasco, H. R., & Mendoza, J. C. N. (2021). Reading strategy instruction and its impact on vocabulary retention. *Journal of Literacy Education*, 9(1), 50–67.

Vicente, C. A., & Baldera, P. (2024). Examining the effects of metacognitive awareness on the reading comprehension skills of Grade 7 students. *RSU Journal*, 12(1), 25–36. <https://ojs.rsu.edu.ph/index.php/rsurj/article/view/203>

Villanueva, C. D., & Santos, R. P. (2023). Effectiveness of skimming and scanning strategies in improving academic reading comprehension of Grade 11 students. *Philippine Journal of Education Studies*, 15(1), 45–60.

Walker, T. G., & Chan, E. R. (2024). Integrating metacognitive strategy training in online reading environments. *Journal of Educational Technology*, 16(2), 75–92.

Wertsch, J. V., Tulviste, P., & Engeström, Y. (2023). *Learning and development in cultural contexts: The role of reading and comprehension*. Cambridge University Press.

Weston, C. (2024). Effect of questioning strategy on critical reading skills. *Journal of Teaching Innovations*, 8(3), 41–57.

World Bank. (2022). *The state of global learning poverty: 2022 update*. World Bank Publications. <https://www.worldbank.org/en/topic/education/overview>

Wu, H.-L. (2022). A review of the effect of reading strategy instruction on L2 reading comprehension. *International Journal of English Language Teaching*, 12(3), 45–62.

Yung, C., Chin, P., Ban, T., & Em, S. (2024). Using different techniques and strategies to improve English reading skills: A review of literature. *Cambodian Journal of Educational and Social Sciences*, 1(1), 37–48. <https://doi.org/10.69496/cjess.v1i1.13>

Zahro, F., Wahab, A. A., & Ferdiyanto, F. (2023). Students' perception towards teachers' strategies in teaching reading skill. *International Journal of English Education and Linguistics*, 5(1), 55–68.

Zhang, L. (2024). Digital reading strategies and their effect on EFL learners' comprehension. *Journal of English as a Foreign Language*, 12(1), 45–62.

Zila, F., & Septiana, R. (2024). Analyzing students' use of reading strategies and their impact on reading comprehension achievement in Indonesian universities: A qualitative case study. *Journal of Language Teaching and Research*, 15(2), 102–113.