



(RESEARCH ARTICLE)



Improving learners' reading comprehension through collaborative reading circles

Winsel U. Deo-ay *

Apayao State College, Malama, Conner, Apayao, Philippines, 3807.

International Journal of Science and Research Archive, 2026, 19(01), 655-662

Publication history: Received on 06 March 2026; revised on 15 April 2026; accepted on 17 April 2026

Article DOI: <https://doi.org/10.30574/ijrsra.2026.19.1.0807>

Abstract

Literacy is crucial not only for academic success but also for social development, as it lays the foundation for further learning and contributes to overall cognitive, emotional, and economic growth. This study investigated the effectiveness of Collaborative Reading Circles (CRCs) in improving the reading comprehension of elementary learners at Matda Elementary School, Municipality of Conner, Division of Apayao. Employing a one-group pre-test post-test quasi-experimental design, the study involved 17 learners from Grades 2 to 6 during the School Year 2025–2026. Reading comprehension was measured using the Comprehensive Rapid Literacy Assessment (CRLA) for Grades 2 and 3, and the Philippine Informal Reading Inventory (Phil-IRI) for Grades 4 to 6. The CRC intervention was implemented throughout the third quarter, wherein learners were grouped and assigned structured roles, summarizer, questioner, clarifier, vocabulary builder, and predictor, during guided reading sessions. Pre-test results showed an overall mean score of 12.24 (SD = 1.75), corresponding to an Average level of reading comprehension. Following the intervention, the post-test mean rose to 18.00 (SD = 1.50), reflecting a Very High level of reading comprehension. A paired samples t-test revealed a t-value of 19.799 with a p-value of less than 0.01, indicating a highly significant difference between pre-test and post-test scores. These findings confirm that Collaborative Reading Circles significantly improved learners' reading comprehension, underscoring its potential as an effective instructional strategy for developing literacy skills at the elementary level.

Keywords: Collaborative Reading Circles; Reading Comprehension; Phil-IRI; CRLA; Elementary Learners

1. Introduction

Literacy is crucial not only for academic success but also for social development, as it lays the foundation for further learning and contributes to overall cognitive, emotional, and economic growth [1]. Literacy is widely recognized as a fundamental human right and a foundation for lifelong learning and sustainable development. Globally, literacy development remains a pressing educational concern as millions of learners continue to struggle with reading proficiency [2]. The UNESCO emphasizes that literacy is essential for personal empowerment, economic growth, and social participation [3]. However, international large-scale assessments reveal persistent challenges in reading comprehension among school-aged learners. Results from the Organisation for Economic Co-operation and Development Programme for International Student Assessment (PISA) indicate that many learners worldwide fail to reach minimum reading proficiency levels necessary for functional literacy [4].

Reading comprehension, defined as the ability to construct meaning from text through interaction between the reader and the written material, extends beyond decoding and word recognition [5]. It involves higher-order processes such as inference-making, integration of prior knowledge, vocabulary understanding, and critical analysis [6-7]. According to the National Reading Panel, effective comprehension requires explicit instruction, strategy use, and active engagement with text [8]. Similarly, research highlights that learner develop stronger comprehension when they participate in meaningful discussion and collaborative interpretation of texts [9].

* Corresponding author: Winsel U. Deo-ay

In Southeast Asia, literacy concerns are similarly evident. The Southeast Asia Ministers of Education Organization reported through the Southeast Asia Primary Learning Metrics (SEA-PLM) that a considerable proportion of Grade 5 learners in the region demonstrate limited reading proficiency [10]. These findings highlight the pressing need to enhance and reinforce reading instruction in primary education.

In the Philippines, reading comprehension remains a persistent challenge. The country's performance in the 2018 and 2022 PISA revealed that Filipino learners scored substantially below the OECD average in reading literacy [4,11]. National assessments also reflect similar concerns. The Department of Education reported persistent gaps in reading proficiency among elementary learners, prompting the implementation of literacy initiatives such as the Every Child a Reader Program (ECARP) and the Bawat Bata Bumabasa (3Bs Initiative) [12,13]. A study conducted during the academic year 2022 - 2023 in Lusacan Elementary School, Tiaong Quezon, Philippines states that learners demonstrated only average proficiency in reading comprehension, indicating that many learners had not yet achieved mastery in understanding written texts [14]. Also, the results of the CRLA and PHIL-IRI assessments administered at Matda Elementary School at the beginning of School Year 2025-2026 demonstrated low levels of reading comprehension among the learners. This suggests that many learners experience difficulties in understanding written texts, thereby necessitating the implementation of targeted reading interventions.

Several factors contribute to this problem, including limited exposure to interactive reading activities and the continued use of traditional, teacher-centered instructional methods [15]. As a result, many learners remain passive during reading activities and demonstrate difficulty in grasping meaning from what they read, wherein they continue to struggle with identifying main ideas, making inferences, and interpreting texts independently. These findings imply that without targeted intervention, learners may continue to experience difficulties in interpreting and comprehending reading passages at the expected level for their grade. Reading difficulties are often associated with teacher-centered instructional practices that limit opportunities for interaction and collaborative meaning-making [16]. Comprehension improves when learners engage in dialogue, questioning, summarizing, and clarifying ideas with peers [17]. These practices align with Social Constructivist Theory proposed by Lev Vygotsky, which posits that learning occurs through social interaction. This theory suggests that learners actively build their knowledge through experiences and interactions [18]. Through guided collaboration and peer support, learners construct deeper understanding than they would independently.

Collaborative Reading Circles (CRCs), also referred to in literature as literature circles, represent a structured, student-centered strategy grounded in social constructivism. Literature circles engage learners in small-group discussions where each member assumes specific roles to guide comprehension [19]. These roles commonly include summarizer, questioner, clarifier, vocabulary enricher (or vocabulary builder), and predictor—each designed to promote strategic reading behaviors thus, this enables learners to engage in structured dialogue and peer interaction that deepen comprehension and critical thinking. [20,21]. The summarizer identifies key ideas; the questioner formulates critical and inferential questions; the clarifier resolves confusing parts of the text; the vocabulary builder examines unfamiliar terms; and the predictor anticipates possible text developments [22]. Studies shows that these structured roles enhance comprehension monitoring and metacognitive awareness [20-22].

Empirical studies across different contexts show that collaborative reading strategies significantly improve reading comprehension, vocabulary acquisition, and learner motivation [22-24]. Peer-mediated reading interventions have also been found effective for struggling readers [24]. These findings suggest that CRCs foster active engagement and shared responsibility in meaning-making, transforming reading from a passive to an interactive learning process. Despite substantial international evidence supporting collaborative reading approaches, limited localized research has examined the effectiveness of Collaborative Reading Circles in small, rural Philippine elementary schools. Existing studies often focus on urban settings or broader literacy programs without isolating CRCs as structured intervention [25-27]. Moreover, there remains a need to generate context-specific evidence aligned with the goals of the Department of Education to support data-driven literacy instruction.

Teachers at Matda Elementary School have observed similar issues among their learners. Many learners can read aloud with accuracy but experience difficulty understanding the meaning of the passages presented to them. This is evident in their inability to identify story elements, answer comprehension questions, or draw logical conclusions. Such challenges highlight the need for instructional strategies that actively engage learners in constructing meaning and participating in the reading process.

Given these considerations, this study investigated the effectiveness of Collaborative Reading Circles in enhancing learners' reading comprehension at Matda Elementary School. It assessed the learners' comprehension levels before and after the implementation of the strategy and examined whether there was a significant difference between the two

stages, thereby determining the impact of Collaborative Reading Circles on improving comprehension skills. Findings from this study may provide evidence-based insights that support the adoption of interactive, student-centered reading approaches in alignment with the Department of Education's literacy goals.

2. Methodology

2.1. Research Design

This study employed One-group Pre-test Post- Test quasi-experimental design. This design was appropriate for determining the effectiveness of the Collaborative Reading Circles in improving learners' reading comprehension. A pre-test was administered to measure the learners' initial comprehension level before the intervention. After implementing the Collaborative Reading Circles, a different set of tests for the post-test was given to assess any improvement in their reading comprehension. The difference between the pre-test and post-test scores indicated the effect of the intervention.

2.2. Locale of the Study

This study was conducted at Matda Elementary School, a public school located in the Municipality of Conner, under the Division of Apayao.

2.3. Participants of the Study

The respondents of this study were the 17 enrolled learners of Matda Elementary School for the School Year 2025–2026, from Grade 2 to Grade 6. Total enumeration was employed in selecting the participants since the entire population of learners in the identified grade levels was included in the study. This ensured that all eligible learners were given the opportunity to participate and that the results reflected the overall reading comprehension performance of the school.

Table 1 Enrolled learners of Matda Elementary School, School Year 2025–2026

Grade Level	Number of Pupils
Grade 2	3
Grade 3	2
Grade 4	2
Grade 5	6
Grade 6	4
Total	17

2.4. Research Instrument

The instruments used in this study were the CRLA (Comprehensive Rapid Literacy Assessment) for Grades 2 and 3 and the Philippine Informal Reading Inventory (Phil-IRI) for Grades 4 to 6, both standardized assessment tools developed and recommended by the Department of Education. These instruments are designed to measure learners' reading comprehension levels through grade-appropriate reading passages followed by comprehension questions. The CRLA and Phil-IRI assess various comprehension skills, including identifying main ideas, recognizing details, sequencing events, making inferences, and drawing conclusions. Separate sets of passages were used for the pre-test and post-test to avoid familiarity effects. However, both sets were carefully selected to ensure similarity in structure, difficulty level, and skill coverage to maintain consistency in measuring learners' reading comprehension. The results of the pre-test and post-test were compared to determine the effectiveness of the Collaborative Reading Circles intervention.

2.5. Data Gathering Procedures

The data gathering took place during the third and fourth quarters of School Year 2025–2026. A pre-test using CRLA for Grades 2–3 and Phil-IRI for Grades 4–6 was administered at the start of the third quarter to establish learners' baseline comprehension. The Collaborative Reading Circles intervention was then implemented throughout the quarter, with learners grouped into roles such as summarizer, questioner, clarifier, vocabulary builder, and predictor to facilitate structured discussions of texts under teacher supervision. At the beginning of the fourth quarter, a post-test using

parallel forms of the same tools was conducted under similar conditions, and the results were tabulated and statistically analyzed to determine the effectiveness of the intervention.

2.6. Statistical Analysis

The data gathered in this study were analyzed using appropriate descriptive and inferential statistical tools. To determine the level of learners' reading comprehension, the pre-test and post-test scores were computed and interpreted using the following score range:

Table 2 Pre-test and post-test score range

score range	descriptive level
17-20	Very High
13-16	High
9-12	Average
5-8	Low
0-4	Very Low

A paired samples t-test was employed to determine whether there was a significant difference between the learners' pre-test and post-test scores after the implementation of the Collaborative Reading Circles (CRCs). The level of significance was set at 0.05.

3. Results and discussion

3.1. Level of Reading Comprehension of the Learners Before the Implementation of Collaborative Reading Circles

The first research question aimed to determine the level of reading comprehension of the learners prior to the implementation of Collaborative Reading Circles. Pre-test scores out of a maximum of 20 points were gathered and interpreted using the prescribed score range: 17-20 (Very High), 13-16 (High), 9-12 (Average), 5-8 (Low), and 0-4 (Very Low).

Table 3 Level of Reading Comprehension of the Learners Before the Implementation of Collaborative Reading Circles (Pre-test)

Descriptive Level	Score Range	Frequency	Percentage
Very High	17-20	0	0.00
High	13-16	7	41.18
Average	9-12	10	58.82
Low	5-8	0	0.00
Very Low	0-4	0	0.00
Overall Mean \pm SD	12.24 \pm 1.75 (Average)		

As shown in Table 3, the pre-test results revealed that the majority of the learners obtained scores falling within the Average descriptive level, with 10 learners or 58.82% registering in this category. Seven learners (41.18%) scored within the High descriptive level, while no learner obtained scores that fell under the Very High, Low, or Very Low categories.

The overall mean pre-test score was 12.24 (SD = 1.75), which corresponds to the Average level of reading comprehension. These results suggest that prior to the intervention, learners had a moderate level of reading comprehension, indicating a clear need for a structured instructional strategy to improve their performance. These findings are consistent with observations in similar elementary-level studies that highlight gaps in reading

comprehension as a persistent challenge among learners who have not been exposed to collaborative or structured reading approaches.

3.2. Level of Reading Comprehension of the Learners After the Implementation of Collaborative Reading Circles

The second research question sought to determine the level of reading comprehension of the learners following the implementation of Collaborative Reading Circles. Post-test scores were gathered and interpreted using the same scoring rubric applied during the pre-test.

Table 4 Level of Reading Comprehension of the Learners After the Implementation of Collaborative Reading Circles (Post-test)

Descriptive Level	Score Range	Frequency	Percentage
Very High	17-20	14	82.35
High	13-16	3	17.65
Average	9-12	0	0.00
Low	5-8	0	0.00
Very Low	0-4	0	0.00
Overall Mean \pm SD	18.00 \pm 1.50 (Very High)		

Table 4 presents the post-test performance of the learners. The data reveal a marked improvement in reading comprehension scores following the intervention. The majority of learners, 14 out of 17 (82.35%), obtained scores within the Very High descriptive level (17-20), while the remaining 3 learners (17.65%) scored within the High level (13-16). No learner scored at the Average, Low, or Very Low levels.

The overall mean post-test score was 18.00 (SD=1.50), which corresponds to the Very High level of reading comprehension. This marked shift from an Average pre-test mean to a Very High post-test mean suggests that the Collaborative Reading Circles intervention was highly effective in elevating the reading comprehension levels of the learners. The substantial improvement across virtually all participants reflects the value of peer-based, structured reading activities in fostering comprehension skills at the elementary level.

3.3. Significant Difference in the Level of Reading Comprehension Before and After the Implementation of Collaborative Reading Circles

The third research question examined whether a significant difference existed in the reading comprehension levels of the learners before and after the implementation of Collaborative Reading Circles. The hypothesis states that there is no significant difference in the level of reading comprehension of the learners before and after the use of Collaborative Reading Circles. A paired samples t-test was employed to test this hypothesis, given that the same group of learners was measured at two time two points under a pre-test-post-test experimental design.

Table 5 Significant Difference in the Level of Reading Comprehension Before and After the Implementation of Collaborative Reading Circles

Tests	Mean	SD	t-value	p-value
Pre-test	12.24	1.75	19.799*	0.000
Post-test	18.00	1.50		

** highly significant at $\alpha=0.01$;

Table 5 presents the results of the paired samples t-test comparing the pre-test and post-test reading comprehension scores of the 17 learners. The mean pre-test score was 12.24 (SD=1.75) while the mean post-test score was 18.00 (SD=1.50), reflecting a mean gain of 5.76 points. The paired t-test yielded a t-value of 19.799, which is greater than the critical t-value of 2.120 at the 0.05 level of significance with a two-tailed test. The corresponding p-value was less than 0.01.

Given that the computed t-value is greater than the critical value and the p-value is well below the 0.05 significance level, the hypothesis is rejected. This indicates that there is a highly significant difference in the reading comprehension levels of the learners before and after the implementation of Collaborative Reading Circles. The difference confirms that the post-test scores were significantly higher than the pre-test scores, thereby demonstrating that the Collaborative Reading Circles intervention significantly improved the reading comprehension of the learners at Matda Elementary School.

These results affirm the effectiveness of Collaborative Reading Circles as an instructional strategy. The approach, which engages learners in structured, role-based small-group reading activities, appears to have provided meaningful opportunities for active comprehension processing, peer scaffolding, and collaborative sense-making, all of which are recognized in literacy research as critical supports for developing reading comprehension among elementary-level learners.

4. Conclusion

The findings of this study demonstrate that the implementation of Collaborative Reading Circles significantly improved the reading comprehension of learners at Matda Elementary School. Pre-test results showed that most learners were at the Average level of comprehension, with none reaching the Very High category. After the intervention, however, most learners achieved Very High comprehension scores, with the overall mean rising from 12.24 (Average) to 18.00 (Very High). The paired samples t-test confirmed that this improvement was highly significant, thereby rejecting the null hypothesis. These results affirm that Collaborative Reading Circles are an effective instructional strategy for enhancing reading comprehension among elementary learners.

Compliance with ethical standards

Acknowledgments

I acknowledge that I have not used ChatGPT or Copilot for refining some of the sections in the document.

Disclosure of conflict of interest

Authors have declared that they have no known competing financial interests OR non-financial interests OR personal relationships that could have appeared to influence the work reported in this paper.

Statement of ethical approval

The study was conducted with approval and in accordance with the standards of the college. No ethical approval was required, as the research followed all applicable ethical guidelines, ensuring respect for the respondents' privacy and confidentiality.

Statement of informed consent

I affirm that the respondents voluntarily agreed to participate after being fully informed about the purpose, nature, and potential implications of the study. Their responses have been collected with utmost respect for their privacy and confidentiality, in accordance with ethical research guidelines.

References

- [1] William B, Lara D, Lola D. The Effect of Reading Interventions and Programs on Literacy Rates in Philippine Elementary Schools.
- [2] Cadiz-Gabejan AM, Quirino MC. Students' reading proficiency and academic performance. *International Journal of English Language Studies*. 2021 Jun 30;3(6):30-40.
- [3] Antoninis M, Alcott B, Al Hadheri S, April D, Fouad Barakat B, Barrios Rivera M, Baskakova Y, Barry M, Bekkouche Y, Caro Vasquez D, D'Addio AC. *Global Education Monitoring Report 2023: Technology in education: A tool on whose terms?*
- [4] Pisa OE. results (volume I): the state of learning and equity in education. PISA. Paris. 2023.

- [5] Dixon M, Oakhill J. Exploring teachers teaching reading comprehension: Knowledge, behaviours and attitudes. *Education* 3-13. 2024 Oct 2;52(7):963-78.
- [6] Van den Broek P. Individual and developmental differences in reading comprehension: Assessing cognitive processes and outcomes. *Measuring up: Advances in how we assess reading ability*. 2012 Jun 7:39-58.
- [7] Belgira MM, Ambos M, Abangan RM, Hermogenes C, Tamayo MN, Villanueva ML. Assessment of Reading Comprehension Skills of Primary Learners in Private and Public Schools: A Comparative Study.
- [8] National Reading Panel (US), National Institute of Child Health, Human Development (US). Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups. National Institute of Child Health and Human Development, National Institutes of Health; 2000.
- [9] Patty J. Enhancing Reading Comprehension through the Cooperative Integrated Reading and Composition (CIRC) Strategy. *Research Horizon*. 2023 Aug 31;3(4):362-77.
- [10] UNICEF. SEAMEO.(2020). SEA-PLM 2019 Main Regional Report: Children's learning in 6 Southeast Asian countries. Bangkok, Thailand: United Nations Children's Fund (UNICEF) & Southeast Asian Ministers of Education Organization (SEAMEO)-SEA-PLM Secretariat. Organization (SEAMEO)-SEA-PLM Secretariat.
- [11] Valdez AK, Alborno CW, Consulta DJ, Garcia BE, Labaguís AF, Rosete KY, Reyes BC. The Impact of Recent Changes on Philippine Education: A Five-Year Review and Forecast. Bianca Estrella V. and Labaguís, Aliyah Faye V. and Rosete, Kieshya Yves U and Reyes, Benedict C. 2025 May 17.
- [12] Denard LS, Budao-Teacher III V. Between The Lines: The Case of Teaching Reading in the Philippine K to 12 Classrooms.
- [13] Jambangan E. PROCESS EVALUATION FOR THE 8-WEEK READING REMEDIATION: A BASIS FOR ENHANCEMENT.
- [14] Bautista RM, Valtoribio DC. Editorial of the Summer 2024 issue 53, Vol 16 No 3.
- [15] Kilag OK, Llorag S, Mercado M, Vestal P, Dacanay L, Uy F. Investigating Factors Impacting Literacy Skills in Philippine Elementary Schools. *International Multidisciplinary Journal of Research for Innovation, Sustainability, and Excellence (IMJRISE)*. 2024;1(5):59-64.
- [16] Crisologo MK. TEACHING STRATEGIES IN ENHANCING READING COMPREHENSION AMONG MULTIGRADE LEARNERS. *Studies in Interdisciplinary Horizons*. 2025 Aug 8;1(2):83-98.
- [17] Harvey S, Goudvis A. Strategies that work: Teaching comprehension for understanding and engagement. Stenhouse publishers; 2007.
- [18] Mcleod S. Constructivism learning theory & philosophy of education. *Simply Psychology*. 2023 Nov:33-9.
- [19] Taggart J, Wheeler LB. Collaborative learning as constructivist practice: An exploratory qualitative descriptive study of faculty approaches to student group work. *Active Learning in Higher Education*. 2025 Mar;26(1):59-76.
- [20] Talenta PI, Himawati U. Reading together, learning together: The impact of literature circles on student engagement in reading. *Jurnal CULTURE (Culture, Language, and Literature Review)*. 2023 Nov 30;10(2):47-56.
- [21] Ma L. Effects of literature circles activity on reading comprehension of L2 English learners: a meta-analysis. *Humanities and Social Sciences Communications*. 2025 Mar 13;12(1):1-2.
- [22] Sari I, Hasibuan NS, Lubis K, Menjamin S, Saputri NM. Improving Rumi Reading Proficiency through Literature Circle Model at Phitakvitayak Kumung School Southern Thailand. *Jurnal Iqra': Kajian Ilmu Pendidikan*. 2025 Jul 21;10(1):403-18.
- [23] Mendo-Lázaro S, León-del-Barco B, Polo-del-Río MI, López-Ramos VM. The impact of cooperative learning on university students' academic goals. *Frontiers in Psychology*. 2022 Jan 5;12:787210.
- [24] Khan A. Exploring the impact of collaborative learning on student motivation and academic achievement in higher education. *Journal of Education, Humanities, and Social Research*. 2024 Dec;1(1):46-53.
- [25] Casinto CD. *International Journal of Language and Literary Studies*. Reading. 2025;27:09.
- [26] Sison J, Simpall EA. Assessment on the Professional Competence and Teaching Performance OF SEAMEO Innotech Guro21 Course 1 Scholars In Region XII. *International Journal of Interdisciplinary Viewpoints*. 2025 Aug 30;1(5):595-603.

- [27] Santos KC, Cagasan LP, Loberiza KB, Tenorio AD, Angeles AJ, Lapitan MA. Examining the DepEd's National Assessments: A review of framework, design, development, psychometric properties, and utilization.
- [28] Vygotsky LS. Mind in society: The development of higher psychological processes. Harvard university press; 1978.
- [29] Hadwin AF, Järvelä S, Miller M. Self-regulated, co-regulated, and socially shared regulation of learning. Handbook of self-regulation of learning and performance. 2011 May 15;30:65-84.
- [30] Castles A, Rastle K, Nation K. Ending the reading wars: Reading acquisition from novice to expert. Psychological science in the public interest. 2018 Jun;19(1):5-1.
- [31] Johnson DW, Johnson FP. Joining together: Group theory and group skills. Prentice-Hall, Inc; 1991.
- [32] Rosenblatt LM. The reader, the text, the poem: The transactional theory of the literary work. SIU Press; 1994 Sep 21.