

Original Article

Rhymes and Songs: Their Effectiveness as Instructional Tools in Enhancing Reading Comprehension Skills of Grade 3 Learners

Aderen J. Calub

Author Information:

Polytechnic College of La Union, La Union,
Philippines

Correspondence:
aderencalub@proton.me

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Abstract. Reading comprehension remains a persistent challenge among primary learners, particularly in contexts where instruction is predominantly text-centered and assessment-driven. This quasi-experimental study examined the effectiveness of rhymes and songs as structured instructional tools in enhancing the reading comprehension skills of Grade 3 learners across twelve public elementary schools in the Bauang North District, Philippines. A total of 360 learners participated, with 180 exposed to six weeks of rhythm-integrated instruction and 180 receiving conventional reading strategies. The intervention systematically embedded rhymes, songs, and chants into pre-reading, during-reading, and post-reading activities aligned with the Department of Education Most Essential Learning Competencies. Statistical analyses revealed significant improvements in the experimental group's comprehension scores compared to the control group ($p < .001$), with a large effect size (Cohen's $d = 1.28$). Gains were especially evident in inferential and evaluative comprehension, suggesting that rhythm-based instruction enhances engagement, memory retention, and deeper processing of text. These findings emphasize the potential of culturally resonant, multisensory pedagogies in primary education, positioning rhymes and songs as effective scaffolds for foundational literacy development in the Philippine context.

Keywords: *Reading comprehension; Rhymes; Songs; Grade 3 learners; Quasi-experimental design; Literacy instruction.*

Reading comprehension is widely recognized as the gateway to academic success. It is through comprehension that learners move beyond decoding printed symbols to construct meaning, draw inferences, and engage critically with texts. However, for many Grade 3 learners in Philippine public schools, reading remains an act of pronunciation rather than understanding. The critical transition from “learning to read” to “reading to learn” is uneven, and for a significant number of children, incomplete. The urgency of this concern is consistently reflected in national and international assessments.

In the 2022 Programme for International Student Assessment (PISA), Filipino learners obtained a mean score of 347 in reading literacy, significantly below the average of 476, with only about 24% reaching the minimum proficiency level required for basic comprehension (OECD, 2023). This level represents the ability to identify main ideas, integrate information, and make simple inferences. Similarly, the 2024 Functional Literacy, Education and Mass Media Survey (FLEMMS) reported that more than 24 million Filipinos are functionally illiterate, indicating

difficulty in understanding and applying written information in everyday contexts (PSA, 2025). These figures suggest that challenges in comprehension are not isolated to schooling but reflect broader and persistent gaps in literacy development.

At the classroom level, these outcomes are often linked to prevailing instructional practices. Reading instruction in primary grades tends to emphasize teacher-led explanation, structured questioning, and extended seatwork, where meaning is delivered rather than actively constructed by learners (Calleja, 2019; Hisrich & McCaffey, 2021). While such approaches aim to ensure coverage and accuracy, they may limit opportunities for interaction, engagement, and deeper processing. As a result, comprehension is frequently reduced to the recall of details and the production of correct answers, rather than to the interpretation, connection, and evaluation of texts. In privileging order and measurable outcomes, classroom practices may unintentionally sideline the participatory and meaning-centered dimensions of literacy.

Emerging perspectives in literacy education highlight that language learning is not solely cognitive but also rhythmic, oral, embodied, and social (Beaumont, 2022). Children naturally encounter language through chants, playground rhymes, songs, and other patterned forms that rely on repetition, cadence, and melody. These features make language memorable and meaningful, supporting both engagement and retention. Research in early literacy has demonstrated that rhythm-based activities enhance phonological awareness, pattern recognition, and language processing (Jose, 2025; Urbaite, 2025). Moreover, cognitive perspectives suggest that rhythm and melody aid memory consolidation, while socio-cultural perspectives emphasize the role of shared, participatory experiences in scaffolding language acquisition.

However, much of the existing literature has focused on emergent literacy, particularly in Kindergarten and Grade 1, where the emphasis is on phonemic awareness and decoding skills. Fewer empirical studies have examined whether rhythm-integrated approaches contribute to higher-level reading comprehension skills in the intermediate primary grades. This limitation is significant, as Grade 3 represents a critical transition point in literacy development. At this stage, learners are expected to move beyond decoding to understand, interpret, and respond to texts independently.

Despite extensive research on rhythm and early literacy, little empirical work has examined the impact of structured rhymes and songs on reading comprehension among Grade 3 learners in the Philippine context. This gap highlights the need for classroom-based investigations to explore developmentally appropriate and culturally resonant strategies to improve comprehension during this transitional stage.

This study, therefore, investigates the effectiveness of rhythm-integrated instruction using rhymes and songs in enhancing the reading comprehension of Grade 3 learners in public elementary schools in the Bauang North District, La Union. By examining this approach within an authentic classroom setting, the study provides empirical evidence on an instructional strategy that aligns with learners' natural engagement with language. The findings contribute to ongoing discussions on strengthening foundational literacy by offering a pedagogical perspective that integrates cognitive, cultural, and participatory dimensions of learning.

Methodology

Research Design

This study employed a quasi-experimental pretest–posttest control group design. According to Miller et al. (2020), a quasi-experimental design involves comparing groups that are not randomly assigned, allowing researchers to investigate intervention effects under natural classroom conditions. This design was selected to directly examine whether rhythm-integrated instruction produces significant differences in reading comprehension compared to conventional instruction. The researcher used a quasi-experimental rather than a true experimental design because the study targeted learners identified as needing intervention, which necessitated purposive selection rather than random assignment. In this design, the experimental group (EG) received the intervention, while the control group (CG) continued with standard classroom practices. In this study, half of the participants received a six-week rhythm-integrated intervention, while the other half received conventional reading instruction. The pretest–posttest component enabled both within-group and between-group comparisons. Pretest scores established baseline comprehension levels, while posttest scores measured changes after the intervention. To minimize threats such as maturation and testing effects, comparisons were conducted both within groups and across groups, consistent with standard quasi-experimental procedures (Mustainah et al., 2023).

Participants and Sampling Technique

The participants of this study were Grade 3 learners enrolled in the 2025–2026 school year across twelve public elementary schools in the Bauang North District. The researcher used purposive sampling, which, according to Khan (2020), is a non-random sampling technique in which participants are deliberately selected based on specific characteristics or criteria relevant to the study. In this case, the twelve public elementary schools in the district was purposively divided into two groups to allow for a meaningful comparison: six schools formed the experimental group (EG) where learners were exposed to rhythm-integrated reading instruction: Acao, Baccuit, Ballay, Baratao, Bauang North Central, and Bawanta Elementary Schools; the remaining six schools constituted the control group (CG) where learners continued with their regular classes without using rhythm-integrated reading instruction: Bigbiga, Paringao, Pugo, San Agustin, Quinavite, and Eulogio Clarence M. De Guzman Jr. Elementary Schools.

Each school contributed an average of thirty learners, selected by their class advisers based on classroom assessments and observations indicating a need for support in reading comprehension. For this study, “learners in need of intervention” were those who demonstrated below-proficient performance in prior reading assessments or exhibited difficulty in comprehension tasks such as identifying main ideas, making inferences, and sequencing events. Inclusion criteria included: (a) enrollment in Grade 3 during the study period, (b) identified need for reading comprehension support, and (c) regular attendance. Exclusion criteria included: (a) learners with prolonged absences during the intervention period and (b) incomplete pretest or posttest data. In total, 360 learners participated ($n = 180$ for EG; $n = 180$ for CG). To streamline presentation, the complete list of participating schools is provided in Appendix A. In total, 360 learners ($N = 360$) participated ($n = 180$ for EG and $n = 180$ for CG), representing a broad cross-section of the district’s Grade 3 population.

From a methodological standpoint, the sample size of 360 ($N = 360$) is defensible for inferential analysis. Power analysis conventions for independent-samples t-tests suggest that a sample of this size provides sufficient statistical power to detect medium-to-large effects (Cohen’s $d \geq 0.5$) at a conventional significance level ($\alpha = 0.05$), consistent with recommendations from G*Power, which is widely cited and recommended in contemporary educational research journals for conducting reliable power analyses and determining appropriate sample sizes (Kang, 2021). This sample size allows for comparison between the EG and CG, while also accommodating the natural variability among learners across different schools and classrooms.

Research Instrument

To evaluate reading comprehension, the researcher developed a 40-item reading comprehension test aligned with the Department of Education’s Most Essential Learning Competencies (MELCs) for Grade 3 English. The test measured learners’ abilities to extract main ideas, sequence events, infer character motivations, and connect texts to prior knowledge, consistent with the competencies expected by the end of each quarter. The instrument included passages of varying length and complexity, accompanied by multiple-choice, short-answer, and inferential questions, with items distributed to capture both literal and higher-order comprehension skills.

Item construction was guided by established frameworks in reading comprehension assessment, including distinctions between literal, inferential, and evaluative comprehension levels commonly used in elementary literacy research (Oguntade, 2021). The instrument included passages of varying complexity, with multiple-choice, short-answer, and inferential items. Each correct response was assigned one point, with total scores interpreted using proficiency levels (Very Low, Low, Moderate, High, Very High) based on percentage ranges to facilitate descriptive and inferential analysis.

Before administration, the test was piloted on a small group of Grade 3 learners outside the study sample, and a panel of experienced Grade 3 teachers and literacy specialists reviewed the items to ensure alignment with the MELCs, developmental appropriateness, and sensitivity to the targeted skills. Reliability analysis using Cronbach’s alpha confirmed that the instrument consistently measured comprehension skills across items ($\alpha = 0.87$).

Data Gathering Procedure

Prior to the intervention, all participants completed the reading comprehension test to establish a pretest baseline. The experimental group then participated in six weeks of rhythm-based reading instruction, while the control

group continued with standard reading practices, including conventional silent reading, oral recitation, and worksheet exercises. Attendance and engagement were monitored to ensure consistent exposure. At the conclusion of the intervention, both groups completed the posttest, which mirrored the pretest in structure and content. Data from pre- and posttests were collected, coded, and entered for statistical analysis. The intervention was conducted over six weeks, with three sessions per week, each lasting approximately 40–60 minutes. Attendance and engagement were monitored to ensure consistent exposure, following this general structure:

- Pre-reading: Use of chants/rhymes to activate prior knowledge and introduce key vocabulary
- During reading: Rhythmic reading, songs, or chants to highlight key ideas and structure
- Post-reading: Learner-created rhymes/songs to summarize and interpret texts

Learners in the experimental group engaged with texts through songs, chants, and rhythmic recitation integrated across reading phases. Implementation was monitored through periodic classroom observations and teacher checklists to ensure consistency of the intervention across schools.

Data Analysis Procedure

Descriptive statistics (frequency, percentage, and mean) were used to summarize learners' performance across proficiency levels. These are standard procedures in educational research and are presented concisely to describe score distributions. Paired-sample t-tests were used to examine within-group differences between pretest and posttest scores, while independent-sample t-tests were used to compare the experimental and control groups. Effect sizes (Cohen's *d*) were computed to determine the magnitude of observed differences. Assumptions for parametric testing were verified using Shapiro–Wilk tests for normality and Levene's test for homogeneity of variances. Results indicated that assumptions were met; thus, parametric tests were deemed appropriate. Subscale analyses were also conducted to examine differences in literal, inferential, and evaluative comprehension. All analyses were performed using SPSS version 29, with significance set at $p < 0.05$.

Ethical Considerations

Ethical safeguards were observed throughout the study. Parental consent and learner assent were obtained prior to participation, and participants were informed of their right to withdraw at any time without penalty. Confidentiality was maintained by removing identifying information from datasets. Participants were assigned codes instead of names, and all reported data were aggregated to ensure anonymity. All digital data was stored in password-protected files, while physical documents were kept in a locked cabinet accessible only to the researcher. Data will be retained for a specified period (e.g., three years) before secure disposal. The study adhered to institutional ethical standards, and approval was obtained from the appropriate school or research authority prior to data collection. The researcher also maintained reflexivity by acknowledging the dual role of educator and investigator and by mitigating potential bias.

Results and Discussion

As previously discussed in the research design section, the researcher analyzed this in three comparative levels: (1) baseline data by comparing the pretest scores of EG and CG; (2) within-group comparison of pretest and posttest scores each for EG and CG to see how each group progressed over time; and (3) across-group comparison between the EG and CG to see whether the intervention of exposure to rhymes and songs was truly effective in improving the reading comprehension of the Grade 3 learners in this study. Note that in each subsection, the researcher provided both descriptive data (particularly a frequency distribution table) alongside inferential data (t-test scores) to determine whether the comparative results were statistically significant.

Baseline Data: Pretest Reading Comprehension of CG and EG

To determine the baseline reading comprehension of Grade 3 learners, all participants ($N = 360$) were administered a researcher-made reading comprehension test prior to the intervention. Table 1 presents the distribution of pretest scores for both the control group (CG) and experimental group (EG). As shown in Table 1, the close similarity in the distribution of scores between the control and experimental groups indicates that both groups started at nearly the same level of reading comprehension prior to the intervention. The predominance of scores in the Moderate category suggests that while learners possessed foundational comprehension skills, there remained substantial room for improvement. Furthermore, the absence of Very High scores underscores the need for instructional strategies, such as the intervention investigated in this paper, to enhance comprehension skills among Grade 3 pupils.

Table 1. Pretest reading comprehension scores of control and experimental groups

Score Range	Interpretation	Control Group		Experimental Group	
		Frequency	Percentage	Frequency	Percentage
33-40	Very High	0	0.00%	0	0.00%
25-32	High	40	22.22%	40	22.22%
17-24	Moderate	90	50.00%	88	48.89%
9-16	Low	50	27.78%	52	28.89%
0-8	Very Low	0	0.00%	0	0.00%

This pattern is consistent with recent literacy research indicating that learners tend to demonstrate competence in basic (literal) comprehension while experiencing greater difficulty in higher-order processes such as inferential and evaluative understanding. For instance, Dirgantari and Susantiningdyah (2020) found that students performed lowest on inferential and evaluative tasks compared to literal questions, suggesting a gap between foundational and higher-level comprehension skills. Similarly, Chen et al. (2023) emphasized that while literal comprehension involves extracting explicit information, inferential and evaluative comprehension require deeper cognitive processing, which learners often struggle to achieve without targeted instructional support.

To test significance, an independent-samples t-test was conducted as shown below.

Table 2. Independent-samples t-test for pretest reading comprehension scores

Group	Mean	SD	<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
CG	20.06	5.40	0.14	358	.889	0.02
EG	19.98	5.35				

As shown in Table 2, there is *no significant difference* between the two groups, $t(358) = 0.14, p = .889$. The computed effect size was also negligible (Cohen's $d = 0.02$). By implication, the t-test results confirm that the two groups were statistically equivalent in reading comprehension prior to the intervention. With no significant pre-existing differences between the CG and EG, any subsequent improvements observed in the posttest can be more confidently attributed to the instructional treatment rather than to initial ability differences.

Within-Group Comparison of Reading Comprehension Scores

Table 3 presents the distribution of scores within the control group (CG) and experimental group (EG).

Table 3. Within-group comparison of reading comprehension scores (CG and EG)

Score Range	Interpretation	Control Group		Experimental Group	
		Pretest	Posttest	Pretest	Posttest
33-40	Very High	0 (0.00%)	10 (5.56%)	0 (0.00%)	70 (38.89%)
25-32	High	40 (22.22%)	60 (33.33%)	40 (22.22%)	80 (44.44%)
17-24	Moderate	90 (50.00%)	80 (44.44%)	88 (48.89%)	28 (15.56%)
9-16	Low	50 (27.78%)	30 (16.67%)	52 (28.89%)	2 (1.11%)
0-8	Very Low	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

As summarized in Table 3, both groups demonstrated improvement from pretest to posttest; however, the magnitude and direction of change differed. The control group showed modest upward movement, while the experimental group exhibited a pronounced shift toward higher performance categories, with most learners moving into the High and Very High ranges. These descriptive patterns suggest that while improvement occurred in both groups, the gains were more substantial among learners exposed to rhythm-integrated instruction. To determine whether these changes were statistically significant, paired-samples t-tests were conducted (Table 4).

Table 4. Paired-samples t-test for within-group comparison

Group	Pretest Mean (SD)	Posttest Mean (SD)	<i>t</i>	<i>Df</i>	<i>p</i>	Cohen's <i>d</i>
CG	20.06 (5.40)	22.72 (6.20)	4.51	179	< .001	0.39
EG	19.98 (5.35)	30.19 (5.50)	18.72	179	< .001	1.39

The results indicate that both groups showed statistically significant improvements from pretest to posttest. However, the effect size for the experimental group (Cohen's $d = 1.39$) was substantially larger than that of the control group (Cohen's $d = 0.39$), indicating a markedly stronger impact of the intervention. Similar to Bonacina

et al. (2021), the significant gains observed in the experimental group suggest that sensitivity to rhythmic patterns may enhance language processing and early literacy development. Likewise, Sousa et al. (2022) found that rhythm- and music-based interventions support phonological and reading-related skills among young learners. The present findings extend these studies by demonstrating that such benefits are not limited to early literacy but may also translate to higher-level comprehension outcomes.

Posttest Reading Comprehension of Control and Experimental Groups

After examining within-group gains, the analysis compared posttest performance across groups to determine whether the observed improvements in the experimental group exceeded those under conventional instruction. Table 5 presents the distribution of posttest scores.

Table 5. Posttest reading comprehension scores of the control and experimental groups

Score Range	Interpretation	Control Group		Experimental Group	
		Frequency	Percentage	Frequency	Percentage
33-40	Very High	10	5.56%	70	38.89%
25-32	High	60	33.33%	80	44.44%
17-24	Moderate	80	44.44%	28	15.56%
9-16	Low	30	16.67%	2	1.11%
0-8	Very Low	0	0.00%	0	0.00%

As shown in Table 5, the control group remained largely within the Moderate range, while the experimental group shifted predominantly to the High and Very High categories. This contrast indicates that although both groups improved, the experimental group showed a greater improvement in comprehension performance. To confirm whether these differences were statistically significant, an independent-samples t-test was conducted (Table 6)

Table 6. Independent-Samples t-Test for Posttest Reading Comprehension Scores

Group	Mean	SD	t	df	p	Cohen's d
CG	22.72	6.20	12.09	358	< .001	1.28
EG	30.19	5.50				

Statistical analysis revealed a significant difference between the groups, $t(358) = 12.09, p < .001$, with a large effect size (Cohen's $d = 1.28$). This indicates that the difference is not only statistically significant but also practically meaningful in classroom contexts. In practice, this suggests that learners exposed to rhythm-integrated instruction achieved substantially higher levels of comprehension than those receiving conventional instruction, reflecting meaningful improvements in actual learning performance.

These findings confirm and extend prior research (Eccles et al., 2021), which reported that integrating musical and rhythmic elements into literacy instruction enhances reading-related skills. Consistent with the Temporal Sampling Framework and Cognitive Load Theory (Tanriguden, 2024), the results suggest that rhythm may support attention, segmentation, and processing of linguistic information. Taken together, the between-group results validate the earlier within-group findings, demonstrating that the observed gains in the experimental group are attributable to the intervention rather than to natural progression or repeated testing effects.

Summary of Findings

In summary, here are the key findings of the study that affirm the effectiveness of the intervention:

1. Baseline equivalence was established between the groups, as reflected in statistically similar pretest scores ($p = .889, d = 0.02$). This confirms that both groups started from comparable levels of reading comprehension.
2. Both groups improved over time, but the experimental group demonstrated substantially greater gains ($d = 1.39$ vs. $d = 0.39$). This indicates that rhythm-integrated instruction accelerates comprehension development beyond what is observed in conventional instruction.
3. The intervention was effective in improving reading comprehension, as shown by the significant posttest difference ($p < .001, d = 1.28$). The large effect size highlights the practical significance of the intervention in classroom settings.

Conclusion

This study affirms that the use of rhymes and songs as an intervention to enhance Grade 3 learners' reading comprehension is effective. However, more than testing the effectiveness of the intervention, this study reopens a conversation about how literacy is imagined in Philippine classrooms. At a time when national reports describe a “learning crisis” and millions of Filipinos struggle with functional literacy, as this study prefaces, the question is not merely how to raise scores but how to rethink the experience of learning itself. The findings suggest that comprehension need not be confined to silent seatwork, worksheets, and procedural questioning. When rhythm, rhyme, and song are treated not as classroom add-ons but as deliberate scaffolds, learners do not simply perform better; they engage language differently.

This study contributes to existing literature by addressing the limited empirical research on rhythm-based instruction at the Grade 3 level. While prior studies have largely focused on Kindergarten and Grade 1, this research extends the application of rhythm-based strategies to a critical transitional stage in literacy development, where learners move from decoding to meaning-making. In doing so, it provides evidence that rhythm-based approaches remain pedagogically relevant beyond early phonics and can support inferential and evaluative comprehension.

Implications for Classroom Practice. The findings suggest that rhythm-integrated instruction offers a practical and accessible strategy for enhancing reading comprehension. Rhymes, chants, and songs are low-cost, culturally familiar, and easily adaptable to diverse classroom contexts. Teachers may integrate rhythmic elements into pre-reading, during-reading, and post-reading activities to support engagement, memory, and comprehension.

Implications for Curriculum and Policy. The results support ongoing efforts to strengthen foundational literacy by highlighting the value of incorporating multisensory and participatory approaches in reading instruction. Rather than treating rhythm as enrichment, curriculum frameworks may consider positioning it as a complementary instructional strategy for developing comprehension skills.

Implications for Teacher Training. The study underscores the need to equip teachers with strategies that move beyond procedural instruction. Professional development programs may include training on rhythm-integrated and other interactive literacy approaches to enhance classroom practice.

Implications for Future Research. Future studies may explore the application of rhythm-based instruction across different grade levels and subject areas, compare various forms of musical scaffolds (e.g., chants versus songs), and examine long-term retention of comprehension skills through longitudinal designs. Additionally, research in multilingual and diverse classroom contexts may further illuminate the adaptability and impact of rhythm-integrated instruction.

This study does not claim to resolve the structural roots of broader literacy challenges. Rather, it offers a focused instructional contribution by demonstrating that targeted, classroom-based interventions can produce meaningful improvements in reading comprehension. While systemic issues require broader reform, incremental innovations in pedagogy remain essential components of educational improvement. Approaches like rhythm-based instruction reinforce the idea that effective literacy instruction need not rely solely on traditional methods but can draw on familiar, culturally grounded practices to support deeper learning.

Contributions of Authors

Not Indicated

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Conflict of Interests

The author declares that this research was conducted in partial fulfillment of academic requirements. The author serves as an educator within the Bauang North District, where the study was conducted. Although the author was involved in the design, data collection, and analysis, every effort was made to ensure objectivity, including the use of standardized instruments, statistical verification of assumptions, and adherence to ethical protocols such as reflexivity and data anonymization. The author affirms that there is no other competing interest to declare.

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