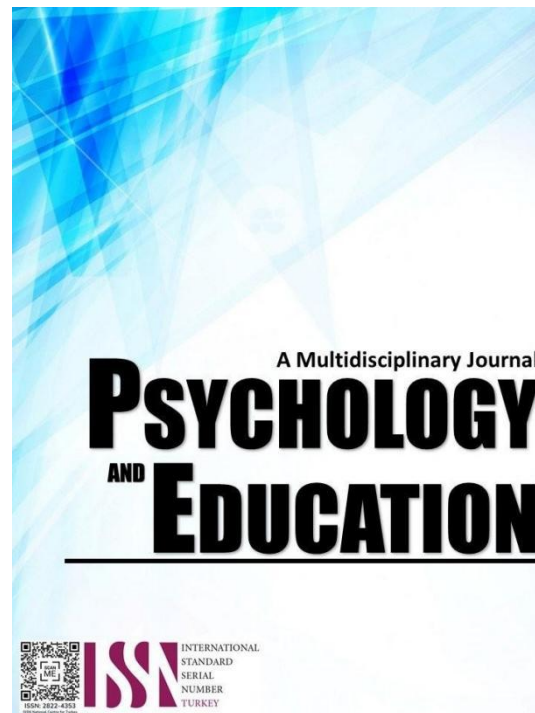


THE USE OF VERBAL PUZZLES TO IMPROVE VOCABULARY AND COMPREHENSION SKILLS IN GRADE 6 LEARNERS



PSYCHOLOGY AND EDUCATION: A MULTIDISCIPLINARY JOURNAL

Volume: 45

Issue 6

Pages: 800-803

Document ID: 2025PEMJ4395

DOI: 10.70838/pemj.450609

Manuscript Accepted: 07-28-2025

The Use of Verbal Puzzles to Improve Vocabulary and Comprehension Skills in Grade 1 Learners

Niño N. Sacapaño, * Cherry C. Escarilla, Jimmy Maming, Jhoselle Tus

For affiliations and correspondence, see the last page.

Abstract

Vocabulary and reading comprehension are foundational skills in early education, yet many young learners face persistent challenges in acquiring them, particularly in the post-pandemic context of disrupted classroom interactions. This study aimed to assess the effectiveness of using verbal puzzles—implemented as word games—as a strategy to enhance the vocabulary and comprehension skills of Grade 6 learners in the District of Malay City during the 2024–2025 academic year. Employing a quasi-experimental design, the research involved two groups of 25 Grade 1 students each: one receiving traditional instruction (comparative group), and the other exposed to word games (word game group). The vocabulary test, composed of 40 items focusing on context clues and definitions, was administered as both a pre-test and a post-test. Findings revealed significant improvements in both groups, with the word game group showing a greater mean gain from pre-test to post-test (from $M = 30.00$ to $M = 60.13$) compared to the comparative group (from $M = 32.00$ to $M = 57.53$). Statistical analysis using an independent t-test showed that both improvements were significant at $p < .05$. These results suggest that integrating word games into early-grade instruction fosters better engagement, enhances vocabulary retention, and leads to improved reading comprehension outcomes. The study supports the inclusion of interactive, play-based learning approaches in early literacy programs to bridge learning gaps and promote academic success. It is recommended that educators and curriculum developers incorporate structured word games into Grade 1 lesson plans to stimulate learner interest and improve foundational language skills. Further research involving a larger population and long-term assessment is encouraged to validate the sustained impact of game-based instruction.

Keywords: *vocabulary, comprehension, word games, Grade 1 learners, instructional strategy*

Introduction

Vocabulary development is fundamental to linguistic and academic growth, yet many learners face persistent challenges in this area. The COVID-19 pandemic further intensified these difficulties due to the suspension of face-to-face classes and reduced teacher-student interaction. Students primarily relied on online and modular learning modalities for two years, limiting opportunities for guided reading and vocabulary practice. As a result, learners struggled to expand their vocabulary, impacting their reading comprehension and overall academic performance.

In response to these concerns, the Department of Education launched initiatives such as the 3Bs (Hamon: Bawat Bata Bumabasa) under DepEd Order No. 173, s. 2019, to promote reading proficiency among learners at every grade level. Despite these efforts, significant challenges remain. According to the Philippine Informal Reading Inventory (PHIL-IRI) for SY 2022–2023, 49% of fourth-grade students were categorized as “frustrated” readers, while only 13% reached the independent reading level. This suggests a critical gap in foundational reading skills, likely exacerbated by learners’ preference for digital entertainment over reading, especially among the Gen Z cohort.

Limited vocabulary knowledge often results in poor academic performance, as students struggle to understand instructional materials and examination questions. This has compelled teachers to read test items aloud to ensure comprehension, highlighting the urgent need for more engaging and effective teaching strategies. Researchers such as Murcia (2020) and Parmawati (2020) have emphasized the centrality of vocabulary acquisition in language development, pointing out how deficiencies hinder comprehension and expression. Consequently, educators are encouraged to implement more dynamic and student-centered approaches, such as word games, to make vocabulary instruction more interactive and impactful.

This study aimed to assess the effectiveness of word games as a tool for teaching vocabulary to first-grade students at the Schools Division of Cauayan City. Research has shown that learners respond more positively to game-based instruction than traditional rote exercises (Riahipou et al., 2018; Donmus, 2018). Thus, by fostering interest and motivation through playful learning strategies, this study hopes to contribute valuable insights into improving vocabulary proficiency and, ultimately, student academic outcomes.

Research Objectives

This study aimed to enhance the vocabulary abilities of first-grade students through word games. Specifically, it sought to determine whether a statistically significant difference exists in the post-test performance of students exposed to comparative instruction versus those who engaged in word games. Additionally, the study investigated whether a statistically significant difference exists between both groups’ pre-test and post-test performance, thereby assessing the effectiveness of word games as a vocabulary enhancement strategy.

Methodology

This study utilized a quasi-experimental design involving two groups of first-grade students from the Schools Division of Cauayan City during the academic year 2024–2025. Each group consisted of 25 students, randomly assigned through coin tossing to either the comparative or word game groups. The primary objective was to assess the effectiveness of word games on students' vocabulary and comprehension skills. To achieve this, the researcher used pre-test and post-test measures for comparison. The K5 Learning website, which provides educational resources such as worksheets, flashcards, quizzes, and reading materials for kindergarten through fifth-grade students, served as a primary source of instructional tools and assessment materials.

The vocabulary assessment tool used in the study was adapted from Quizizz by Sullivan (2020) and the K5 Learning website, comprising 40 items that included definition-based and context clue questions. Each sentence featured an underlined word, and students were asked to select its correct meaning from multiple choices. Identical vocabulary tests were administered before and after the intervention, with the post-test items rearranged to minimize familiarity and recall bias. In addition, the researcher prepared lesson plans for both groups and conducted classroom demonstrations observed by a master teacher to ensure instructional consistency. These procedures allowed for a structured comparison between traditional instruction and game-based learning methods. Vocabulary skills test with the questions rearranged. The researcher then compiled, evaluated, and interpreted the findings.

Results and Discussion

Table 1 presents the paired differences in the pretest and post-test scores of the vocabulary development and comprehension skills of Grade 1 learners in both the Comparative Group and the Word Game Group. The Comparative Group showed a mean increase from 32.00 (SD = 5.53) in the pretest to 57.53 (SD = 6.72) in the post-test, with a paired mean difference of -10.20, yielding a *t*-value of -13.57 and a *p*-value of .000, indicating a statistically significant improvement. Similarly, the Word Game Group's mean scores increased from 30.00 (SD = 5.78) to 60.13 (SD = 4.73), with a paired mean difference of -15.78, a *t*-value of -14.80, and a *p*-value of .000, also showing a significant improvement. Notably, the Word Game Group had a greater mean gain than the Comparative Group, suggesting that game-based learning strategies may be more effective in enhancing vocabulary and comprehension skills among young learners. The statistical significance at the 0.05 level supports the effectiveness of both methods, though word games yielded higher gains in learner performance.

Table 1. *Paired Differences in the Pretest and Post-test of the Vocabulary Development and Comprehension Skills, both the Comparative Group and the Word Game Group*

Paired Variables	Pretest		Posttest		Paired Mean Difference	<i>t</i> -value	<i>P</i> -value	Remark
	Mean	SD	Mean	SD				
Comparative Group	32	5.53	57.53	6.72	-10.20	-13.57	.000	Significant
Word Game Group	30	5.78	60.13	4.73	-15.78	-14.80	.000	Significant

Note: *n* = 25; Analysis is based on independent *T*-test SD – standard deviation Ns – significant at 0.05 level

Conclusion

The findings of this study conclude that both the traditional comparative instruction and the word game-based method significantly improved the vocabulary and comprehension skills of Grade 1 learners. However, the learners who participated in word game activities improved more than those who received traditional instruction. These results affirm the effectiveness of integrating engaging, game-based strategies in early literacy instruction to support language development among beginning readers.

In light of the findings, it is recommended that primary-grade educators incorporate word games as a regular instructional strategy to enhance vocabulary acquisition and reading comprehension among Grade 1 learners. Educational policymakers and curriculum developers may consider including structured word game activities in early-grade language programs to promote active learning and

greater student engagement. Future researchers may also explore the long-term effects of word games on literacy development and replicate this study with a larger and more diverse sample of early learners for broader generalization.

References

- Ancheta, J., & Perez, C. (2018). Language learning difficulties of selected foreign students in National University, Philippines. Journal Publication.
- Baqoyevna, K. & Ikromova, M. (2019). The effectiveness of games on learning a foreign language. Journal Publication.
- Brown, D. (2018). Language learning strategies: A general overview. *Procedia- Social and Behavioral Sciences* 106. www.sciencedirect.com.
- Byrne, D. (2019). Effectiveness of games on learning a foreign language. *International Journal of Scientific Research and Modern Education (IJSRME)*, Volume 4, Issue 2. www.rdmodernresearch.com.
- Chamot, A.U., & Kupper, L. (2018). Language learning strategies: A general overview. *Procedia- Social and Behavioral Sciences* 106. www.sciencedirect.com.
- Derakhshan, A., & Davoodi Khatir, E. (2017). The effects of using games on English vocabulary learning. *Journal of Applied Linguistics and Language Research*, Volume 2, Issue 3.
- Dewey, J. (1887). John Dewey a pioneer in pedagogy. <https://www.pedagogy4change.org/john-dewey/>.
- Donmus, V. (2018). The effects of using games on English vocabulary learning. *Journal of Applied Linguistics and Language Research*, Volume 2, Issue 3.
- Elaish-Monther M., Abdul, N., Shuib, L., & Al-haiqi, A. (2019). Development of a mobile game application to boost students' motivation in learning vocabulary. Unpublished thesis.
- Farihah, Z., & Rachmawati, E. (2020). Digital hangman game to improve student's vocabulary mastery in teaching narrative text. *JALL (Journal of Applied Linguistics and Literacy)*, 4(1), 38-46. <https://jurnal.unigal.ac.id/index.php/jall/article/view/2990>
- Ghahraman, V., & Shabani, M. (2021). The effects of word games on Iranian Elementary EFL learners' vocabulary achievement. *International Journal of Language Studies*, 15(1).
- Hadfield, J. A. (2019). Effectiveness of games on learning a foreign language. *International Journal of Scientific Research and Modern Education (IJSRME)*, Volume 4, Issue 2. www.rdmodernresearch.com.
- Hardan, A. (2018). Language learning strategies: A general overview. *Procedia- Social and Behavioral Sciences* 106. www.sciencedirect.com.
- Jannah, D., Ida, S. & Miftahul, P. (2019). Exploring the effects of using game on students' vocabulary mastery: A case study in instructional material and media development class. *Advances in Social Science, Education and Humanities Research*, volume 434. <https://www.atlantis-press.com/proceedings/iconelt-19/125939228>.
- Jumroh, J., & Rohmah, O. (2019). The influence of student's perception on learning media and student's motivation toward student's English achievement. *INFERENCE: Journal of English Language Teaching*.
- Moseley, C. (2019). Why collaboration is important. Blog. Jostleme, <https://blog.jostle.me/blog/why-collaboration-is-important>.
- Mubaslat, M. (2018). The effect using educational games on the students' achievement in the English language for the primary stage. Journal Publication.
- Nuraeni, S. & Intan, C. (2020). Improving English vocabulary mastery through word game. Unpublished Thesis.
- O'Malley, J, Chamot, A., Kerant, K., & Wanger, J. (2018). Language learning strategies: a general overview. *Procedia- Social and Behavioral Sciences* 106. www.sciencedirect.com.
- Oxford, R. (1990). Language learning strategies: A general overview. *Procedia- Social and Behavioral Sciences* 106. www.sciencedirect.com.
- Parsons, S. (2018). Word games develop vocabulary. <http://thinkingtalking.co.uk/word-games-develop-vocabulary/>.
- Richard-Amato, P., A. (2019). Effectiveness of games on learning a foreign language. *International Journal of Scientific Research and Modern Education (IJSRME)*, Volume 4, Issue 2. www.rdmodernresearch.com.
- Samortin, M. (2019). Effects of gamified learning activities in enhancing junior high school students' English vocabulary retention. *Asian Journal on Perspective in Education*, Far Eastern University, Institute of Education.

Schultz, M. & Fisher, A. (2019). Effectiveness of games on learning a foreign language. *International Journal of Scientific Research and Modern Education(IJSRME)*, Volume 4, Issue 2. www.rdmodernresearch.com.

Vygotsky, L. S. (1978). *Mind and society: The development of higher mental processes*. Cambridge: Harvard University Press. Google Scholar.

Affiliations and Corresponding Information

Niño N. Sacapaño

Lipa City Colleges – Philippines

Dr. Cherry C. Escarilla

Lipa City Colleges – Philippines

Dr. Jimmy Maming

Lipa City Colleges – Philippines

Dr. Jhoselle Tus

Lipa City Colleges – Philippines