



The Effectiveness of The Word Guessing Game in Improving Vocabulary Mastery of The Fourth-Grade Students at SD Negeri 5 Pagaralam

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ABSTRACT

This study investigated whether there was a significant difference in vocabulary mastery between fourth-grade students at SD Negeri 5 Pagaralam who were taught using the Word Guessing Game and those who were not. It used a quasi-experimental design with pre-test and post-test control groups. Two classes were selected through purposive sampling: IV.C as the experimental group and IV.D as the control group. A multiple-choice vocabulary test was administered before and after treatment. Data were analyzed using paired and independent t-tests. The independent t-test showed a t-obtained value of 4.979, which was higher than the t-table value of 2.009 at a 0.05 significance level. These results indicate that the Word Guessing Game significantly improved students' vocabulary mastery. Therefore, this game can be considered an effective method for enhancing English vocabulary learning.



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Vocabulary is one of the key components of language proficiency. Without an adequate vocabulary, learners cannot communicate effectively or express their ideas clearly. According to Zimmerman (2020), vocabulary is the cornerstone of language competency, and its acquisition requires not only memorization but also understanding in context. Kim and Park (2021) further emphasize that vocabulary plays a crucial role in all four language skills listening, speaking, reading, and writing enabling learners to interpret and express meaning accurately.

However, in Indonesia, many students continue to struggle to master English vocabulary. Traditional teaching approaches, such as memorizing word lists without

context, often lead to boredom and poor retention. Anggraeni (2018) found that Indonesian students' difficulty in acquiring English vocabulary stems from repetitive, teacher-centered instruction. Similarly, Wardani and Sugeng (2019) stated that students with limited vocabulary often find it difficult to express ideas, construct sentences, or comprehend reading materials. These limitations become barriers to effective communication.

The researcher's observation during a teaching internship at SD Negeri 5 Pagaram confirmed these findings. Students often struggled to recall basic English words, especially when asked to speak or describe simple objects. The English teacher also mentioned that students' English proficiency varied widely; some performed very well, while others had minimal vocabulary. Such disparities suggested the need for innovative and engaging teaching techniques.

One promising approach is game-based learning, which integrates fun, interaction, and learning objectives. According to Gee (2021), games can promote active learning, improve memory retention, and provide learners with immediate feedback. For elementary students, whose learning motivation is closely tied to enjoyment, games can create a dynamic classroom atmosphere. As Lin and Tsai (2021) argue, well-designed educational games allow students to learn through exploration and play, reinforcing learning outcomes without feeling pressured.

Among the many game-based strategies, the Word Guessing Game stands out as particularly effective for vocabulary learning. This game involves students guessing words based on clues provided by the teacher or their peers. Studies by Hidayati (2017), Lestari (2019), and Fitriani (2020) revealed that the Word Guessing Game not only helps students understand new words but also improves long-term vocabulary retention. Moreover, Johnson and Zhang (2023) found that interactive games reduced students' anxiety, increasing their confidence in using the target language.

Considering the positive outcomes of previous research and the need to address vocabulary challenges at SD Negeri 5 Pagaram, the present study aimed to determine the effectiveness of using the Word Guessing Game in improving students' vocabulary mastery.

METHOD

Research Design

This research employed a quasi-experimental design using a pre-test and post-test control group. The design was chosen because it allowed the researcher to compare the effects of the Word Guessing Game on students' vocabulary mastery in a real classroom setting without randomizing participants. Two classes were selected purposively: class IV.C served as the experimental group, and class IV.D as the control group.

The experimental class received lessons using the Word Guessing Game, while the control class learned through conventional methods such as translation and repetition. Both groups were given a pre-test before the treatment to assess their initial vocabulary mastery and a post-test afterward to measure improvement.

Population and Sample

The population consisted of all fourth-grade students at SD Negeri 5 Pagaram in the 2024/2025 academic year, totaling 135 students. Using purposive sampling, 53 students were chosen from classes IV.C and IV.D. This method ensured that both groups had relatively similar English proficiency levels at the start of the study.

Instrument

A multiple-choice vocabulary test was used as the research instrument. The test contained 40 items covering familiar topics from the fourth-grade curriculum, including daily activities, transportation, occupations, and time expressions. Each item tested students' understanding of word meaning and context.

The test's validity was confirmed through expert judgment by English teachers and advisors, while reliability was measured using Cronbach's Alpha, which yielded a coefficient above 0.70, indicating high consistency.

Treatment Procedure

The Word Guessing Game was implemented over six sessions. During each session, the teacher divided students into small groups. Each group took turns guessing vocabulary words based on definitions, synonyms, or pictures. Correct answers earned points, which increased students' enthusiasm and engagement. After each session, the teacher reviewed the words and encouraged students to make sentences using them.

Meanwhile, the control class was taught using traditional methods. The teacher explained vocabulary through direct translation, wrote example sentences on the board, and asked students to memorize the words. This contrast allowed for clear comparison between game-based and conventional instruction.

Data Analysis

The collected data were analyzed using SPSS version 25. The paired-samples **t-test** measured improvement within the experimental group before and after treatment, while the independent-samples t-test compared post-test results between the experimental and control groups. The significance level was set at 0.05.

FINDINGS

Descriptive Findings

The results showed a significant improvement in the vocabulary mastery of students in the experimental group. Before the treatment, most students scored in the "Poor" category. Still, after being taught using the Word Guessing Game, their scores increased dramatically, with many reaching the "Good" or "Excellent" categories.

In contrast, the control group showed only minor improvement. While a few students improved slightly, most remained in the "Average" or "Poor" categories.

Table Summary:

- Experimental Group Mean Score (Pre-test): 47.37
- Experimental Group Mean Score (Post-test): 76.06

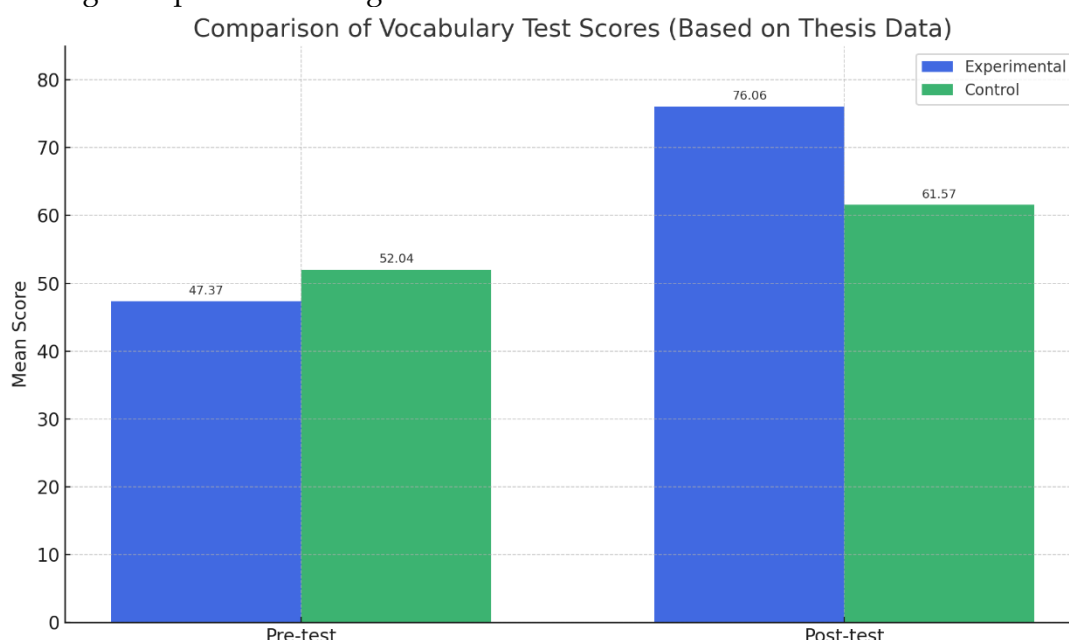
- Control Group Mean Score (Post-test): 60.41

Statistical Analysis

The paired-samples t-test for the experimental group showed a significant increase in vocabulary mastery ($p < 0.05$), confirming that the Word Guessing Game improved students' performance. The independent-samples t-test comparing post-test results between the two groups yielded a t-value of 4.979, which is greater than the t-value of 2.009 at the 0.05 significance level. This means the difference between the two groups was statistically significant.

Interpretation of Findings

The findings confirmed that Word Guessing Games positively affected students' vocabulary acquisition. The students became more active, cooperative, and enthusiastic. The classroom atmosphere became more interactive and enjoyable, leading to improved learning outcomes.



These results indicate that the Word Guessing Game was an effective instructional method to improve students' vocabulary mastery.

DISCUSSION

The findings of this study show that the Word Guessing Game increased students' participation, collaboration, and willingness to use new words in context. This pattern is consistent with classroom engagement principles for Gen Z learners – namely, the use of interactive, game-like activities and multimodal inputs to sustain attention and motivation (see the discussion of gamification and interactive tasks, pp. 93–95). Hence, game-based vocabulary work can serve as a lever to convert passive attendance into active, socially mediated learning (Sari, 2024a).

From a socio-constructivist perspective, the observed vocabulary gains can be explained by learners' negotiation of clues, co-construction of answers, and immediate peer/teacher feedback during the game. Similar benefits of collaborative,

learner-centred design are reported in an R&D context where materials tailored to learners' needs increased interest, motivation, and perceived usefulness across try-out sessions (Sari, 2019). This convergence suggests that both game-based tasks and needs-responsive materials create conditions for meaningful interaction and internalization of new lexis.

Cognitively, the task required learners to analyse prompts and retrieve candidate words—processes that align with deeper language processing. The value of immediate feedback for accelerating such processing is also evident in AI-assisted language tools. For instance, AI Text-to-Speech (TTS) training delivered real-time, personalized feedback and was associated with higher engagement and confidence among learners (positive ratings on effectiveness, engagement, and confidence; Table 4), while offering a non-judgmental space that lowers affective barriers to performance (Putra et al., 2025, pp. 483–489). In writing instruction, Wordtune provides instant rewrite, clarity, and tone suggestions that support reflective revision and stylistic experimentation—mechanisms that teachers can appropriate to strengthen the form–meaning link in vocabulary tasks (Sari, 2024b, pp. 339–344).

Affectively, the game reduced hesitation among initially shy learners, echoing evidence that psychologically safe, participatory activities (including gamified elements) help Gen Z students take risks in language use and remain on-task (Sari, 2024a, pp. 91–96). Coupling such activities with tools that provide immediate, low-stakes feedback (e.g., TTS for oral practice; Wordtune for written reformulation) can further stabilize motivation and self-efficacy (Putra et al., 2025; Sari, 2024b).

Pedagogical implications. Teachers can (a) embed short, structured word-guessing rounds to activate retrieval and collaboration; (b) follow up with explicit form–meaning work using needs-aligned materials so that new items are consolidated (Sari, 2019); and (c) add AI-supported micro-practice: TTS for pronunciation modelling/feedback and Wordtune to scaffold written usage and variations (Putra et al., 2025; Sari, 2024b; Sari, 2024a). This amalgam reflects Gen Z-friendly design by combining interactivity, feedback, and personalization.

Limitations and balance. Two cautions emerged. First, competitive dynamics may need moderation to avoid off-task behaviour—Classroom guidance for Gen Z highlights the need to manage competition and maintain inclusivity alongside engagement (Sari, 2024a, pp. 91–96). Second, while AI tools provide scalable, immediate feedback, learners reported issues of voice naturalness/intonation, technical reliability, and concerns about over-reliance—indicating that AI should complement, not replace, teacher-led explanation and contextualized practice (Putra et al., 2025, pp. 485–489; Sari, 2024b, pp. 343–344).

CONCLUSION

The study concludes that the Word Guessing Game is highly effective in improving vocabulary mastery among fourth-grade students at SD Negeri 5 Pagaram. The experimental group outperformed the control group significantly in vocabulary achievement. The use of games created a more engaging and enjoyable learning environment, enhancing students' motivation, participation, and retention.

Teachers are encouraged to incorporate game-based methods, especially the Word Guessing Game, into elementary English instruction. This strategy not only

enriches students' vocabulary but also fosters collaboration and confidence in using the target language. Future research may explore the use of similar games for other language skills, such as speaking and reading comprehension.

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The Effectiveness of The Word Guessing Game in Improving Vocabulary Mastery of The Fourth-Grade Students at SD Negeri 5 Pagaram

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