The Effect of Slap the Board Game on Students' Vocabulary at SDN 3 Menteng Palangka Raya

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Article Info	Abstract
	This study aims to find the effect of 'Slap the Board' game on students' English vocabulary retention at SDN 3 Menteng Palangka Raya, Indonesia. This research used quantitative approach with pre-experiment research type and One-Group Pre-test-Post-test Design. The research was conducted in an elementary school with a total sampling of 16 third-grade students, consisting of 5 male students and 11 female students. The data were collected using a multiple-choice test instrument with 20 questions, given in the pre-test and post-test. The data were analyzed using inferential statistics through Shapiro-Wilk normality test and paired sample t-test. The results showed that students' English vocabulary mastery had an average of 57.5 in the pre-test, and after the implementation of the "Slap the Board" game, students' vocabulary retention increased with an average of 75 in the post-test. Statistical analysis showed that the "Slap the Board" game had a significant effect on students' English vocabulary mastery with a sig. (2-tailed) 0.001, which is smaller than the significance level $\alpha = 0.05$. Thus, H_0 is rejected and H_1 is accepted. So, the "Slap the Board" game which involves kinesthetic activities and competition can improve the ability to retain English vocabulary and create a more fun and interactive learning atmosphere.

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INTRODUCTION

English language learning at the primary school level plays an important role in introducing students to an international language early on. At this stage of development, students are in a period of early cognitive development that requires a learning approach that is appropriate to their age characteristics. One of the focuses in English learning is the introduction of simple vocabulary related to daily life. However, the challenge often arises not only in how much vocabulary is introduced, but in the extent to which students are able to acquire and retain the vocabulary consistently in the long term. Young learners possess remarkable neuroplasticity and language acquisition potential, yet their limited attention spans, developing metacognitive abilities, and preference for concrete rather than abstract concepts necessitate instructional methods that differ substantially from those used with older learners. Traditional vocabulary instruction that relies heavily on rote memorization or teacher-centered explanations often fails to capitalize on children's natural learning strengths.

The developmental characteristics of primary school students demand pedagogical approaches that align with their cognitive, physical, and social-emotional needs. Children at this age learn most effectively through play, movement, and social interaction rather than passive reception of information. Research in educational psychology demonstrates that young learners benefit from activities integrating physical movement with cognitive tasks, as kinesthetic engagement enhances memory encoding. Primary school students are also highly motivated by elements of competition and game-like structures that transform academic tasks into enjoyable experiences, suggesting that game-based learning may offer a promising approach to vocabulary acquisition.

The ability to remember vocabulary is a core aspect of successful language learning, because without a strong memory, the learned vocabulary will be easily forgotten. There is no vocabulary learning without the involvement of memory, so the process of storing and retain vocabulary becomes the foundation of language acquisition (Nation, 2017). At the elementary school level, students often experience difficulties in retaining the vocabulary that has been taught because learning methods tend not to activate memory functions optimally. Therefore, an approach that can activate students' memory is needed so that the learned vocabulary is easier to retain and reuse.

One of the challenges in learning English at SDN 3 Menteng Palangka Raya is the students' low acquisition and retention of English vocabulary. This is due to the use of conventional learning methods that are passive and do not stimulate students' cognitive and affective engagement. Although the rote approach is still widely used and considered effective in certain contexts, the limited active participation of students causes the weak process of retaining information in long-term memory (Maceiras et al., 2025). Salgado & Koyoc (2024) asserts that sustained vocabulary acquisition is highly dependent on the strength of memory, which ultimately determines success in communicating using a foreign language.

One alternative approach that can improve vocabulary retention is the use of educational games that involve physical activity and quick response. Games are able to create a fun learning atmosphere and are in accordance with the characteristics of elementary school-age children. Play-based instruction aligns with children's cognitive development stages and supports greater linguistic engagement (Parker et al., 2022). Wahyuni et al (2023) state that educational games can increase students' active involvement, while Hidayat (2016) asserts that interactive elements in games have a positive impact on memory. Vu et al (2021) mentioned that game-based learning proved effective in improving vocabulary retention through direct motor involvement and student attention.

In this study, Slap the Board game is used as a strategy to enhance English vocabulary retention among third grade students at SDN 3 Menteng Palangka Raya. In its implementation, students will listen to the vocabulary mentioned, then slap the corresponding picture on the board, thus encouraging active and kinesthetic engagement in the learning process. Hidayat (2016) explains that physical activity can strengthen memory. Liu and Lahoz (2024) add that the integration between movement and learning materials can significantly improve information retention. With this method,

students are expected to acquire and retain vocabulary in a longer period of time and more accurately.

The purpose of this study is to determine the effect of Slap the Board game in enhancing English vocabulary acquisition of elementary school students. This study also aims to provide an alternative learning method that is innovative and fun, and in accordance with the cognitive development stage of children. In addition, the results of this study are expected to be a practical reference for teachers in developing game-based learning strategies. Thus, educational games such as Slap the Board can be a solution in overcoming the problem of students' low vocabulary retention in elementary schools.

METHOD

This study applied pre-experiment research with a One-Group Pre-test- Post-test research design. This type of research was used to determine the effect of Slap the Board game on students' mastery of English vocabulary. This research was conducted at SDN 3 Menteng, Jekan Raya District, Palangka Raya City, Central Kalimantan. The samples in this study were 16 third grade students, comprising of 5 male students and 11 female students. The sampling technique in this study used total sampling.

Research activities were carried out from October to November 2024. The activity began with researchers making field observations while preparing research instruments that would be used. After all the instruments were ready, researchers entered the initial data collection stage by conducting a pre-test to determine the initial ability of students before being given treatment. Furthermore, researchers applied the treatment in the form of game-based learning "Slap the Board". After the treatment was given, researchers conducted a post-test to determine the improvement of students' abilities after participating in the learning.

The data in this study were in the form of pre-test and post-test scores, describing the level of English vocabulary mastery before and after the treatment. To obtain this data, instruments in the form of tests, especially in the form of multiple-choice questions were used. The pre-test was given to students at the first meeting to measure students' initial knowledge of vocabulary on activities and hobbies that had never been taught before. This test consisted of 20 multiple choice questions which all questioned the meaning of word equivalents from English to Indonesian.

After conducting the pre-test, the next step was the application of the Slap the Board game. The steps of the Slap the Board game were preparation, the researchers prepared pictures related to the vocabulary to be taught, then divided the students into groups with the same number of members, then the researchers explained the rules of the game. Next, each group sent a representative to come in the front of the class, and the researchers mentioned the word in English, then the students looked for and patted the picture that matches the word spoken by the researchers then the group would get points if the representative of the group answered correctly. Furthermore, group representatives were rotated in each round. The number of rounds was 5 because it adjusted to the number of questions such as pre and post-tests, which were 20 questions, so all 16 students in the class got the opportunity to answer. If there were wrong answers from the students, then the researchers and all students immediately discussed together to find the answer. At the end of the activity, the researchers added up the points and announced the winning group. The post-test was given at the last meeting to measure the level of students' mastery of English vocabulary after the treatment.

This study used quantitative data with analysis techniques that begin with statistical analysis of pretest and posttest data to provide an initial overview of the data, namely based on the average of the highest and lowest scores of pre-test and post-test results. Furthermore, the prerequisite test was carried out, namely the normality test using the Shapiro-Wilk formula. After that, a t-test was conducted, namely a hypothesis test using a paired t-test, in order to assess whether the difference between the two was statistically significant. The research hypothesis was formulated as follows:

H_0 = Slap the Board game has no significant effect on students' English vocabulary

H_1 = Slap the Board game has significant effect on students' English vocabulary.

RESULTS AND DISCUSSION
Results

Table 1. Pre-Test and Post-Test Data

Points	Pre-Test	Post-Test
Lowest	20	30
Highest	80	100
Average	57.5	75

Based on the statistical data shown above, the results of the students' pre-test and post-test revealed a difference in the value of their mastery of English vocabulary. The test conducted prior to the pre-test treatment yielded a minimum score of 20 and a maximum score of 80, whereas the test conducted following the application of the slap the board game yielded a minimum score of 30 and a maximum of 100. From the data, it was known that the average score of the pre-test was 57.5 while in the posttest the students got an average score of 75. This demonstrates that there is a significant average difference before and after treatment, with the post-test results being higher than the pretest results. Following the descriptive statistical analysis of pretest and post-test data, the next phase was to determine if the data were normally distributed.

Because there were less than 50 samples (n=16), The Shapiro-Wilk test was employed to analyzing the normality of pre- and post-test score data. The normality test outcomes are presented in Table 2 below.

Table 2. Normality Test Result

P-Value	
Pre-Test	Post-Test
0.272	0.760

Based on the results of the normality test above, it is known that the student pre-test results obtained a p-value of 0.272 and in the post-test, results obtained a p-value of 0.760. From these results, it shows that the p-value of the pre-test and post-test is greater than 0.05 which indicates that the data is normally distributed. Thus, the analysis can be continued with the parametric testing, which is paired sample t-test to test the research hypothesis.

Table 3. Results of Hypotheses Testing

Paired Sample T-Test	Pre-Test-Post-Test
Sig. (2-tailed)	<.001
T-Count	-6.303
Df	15
T-Table	1.753

Based on Table 3, the paired sample t-test results show that the sig. (2-tailed) < 0.001, which is smaller than the significance level $\alpha = 0.05$. Thus, H_0 is rejected and H_1 is accepted. Meanwhile, the t-count of -6.303 has an absolute value of 6.303, which is greater than the t-table of 1.753 ($|t\text{-count}| > t\text{-table}$). In statistical tests, zero is a neutral point that indicates no difference or effect. The farther the t-count value is from zero, the greater the evidence that the difference being tested is real and not just a coincidence. In this case, because the t-count value is far from zero, it can be concluded that the Slap the Board game has a significant effect on the acquisition of English vocabulary in grade III students of SDN 3 Menteng.

Discussion

This study aims to find the effect of "Slap the Board" game on the mastery of English vocabulary in third grade students of SDN 3 Menteng Palangka Raya. Based on the results of data analysis, a significant improvement in students' ability was found after the implementation of this game. This finding shows that "Slap the Board" can be an effective learning method in helping students acquire and retain English vocabulary better. The outcome of this study is similar to Berkessa et al (2023) who reported that vocabulary games improved retention through repeated exposure and active learner participation.

The significant learning gains observed in this research can be attributed to several interconnected factors that distinguish game-based learning from conventional vocabulary instruction. First, the

physical movement required in Slap the Board creates a multisensory learning experience that engages kinesthetic, visual, and auditory processing simultaneously. This multimodal engagement activates diverse neural pathways, strengthening memory formation and facilitating easier retrieval of vocabulary items. Second, the repetitive nature of the game provides multiple exposures to target vocabulary within a single session, which is essential for moving words from short-term to long-term memory. Unlike isolated drills that may feel monotonous, the game format makes this repetition feel natural and engaging rather than tedious. Third, the element of play reduces the affective filter that often inhibits language learning, allowing students to experiment with new words in a low-stakes environment where mistakes are part of the game rather than failures to be feared.

Moreover, the immediate feedback inherent in the game's structure allows students to self-correct and adjust their understanding in real time, promoting deeper cognitive processing. The social interaction embedded in group gameplay also facilitates peer learning, where students unconsciously absorb vocabulary through observation of others' responses. These combined factors create an optimal learning environment that addresses both cognitive and affective dimensions of vocabulary acquisition, explaining why the intervention produced statistically significant improvements in student performance. The findings therefore provide empirical support for integrating game-based methodologies into elementary English language curricula, particularly for vocabulary instruction.

The results showed an increase in students' average score from 57.5 in the pre-test to 75 in the post-test, with a difference of 17.5 points. The paired t-test resulted in a sig. (2-tailed) >0.001, with the t-count value (6.303) greater than the t-table (1.753). This finding confirmed the positive impact of the game on students' vocabulary acquisition. The substantial improvement of 30.4% in test scores demonstrates not only statistical significance but also practical significance in educational outcomes. The large effect size indicates that the game-based intervention produced meaningful learning gains that go beyond mere chance, suggesting that this approach could be replicated in similar educational contexts with comparable results.

Thus, the game proved to be able to improve students' English vocabulary mastery in learning compared to the conventional method. Combining physical movement with repetition helps strengthen students' memory during vocabulary learning (Ayana et al., 2024). This aligns with theories of embodied cognition, which suggest that learning is enhanced when students engage multiple sensory modalities simultaneously. The kinesthetic element of the game likely activated different neural pathways than traditional lecture-based instruction, creating stronger and more diverse memory traces. Furthermore, the game format may have increased student motivation and engagement, factors known to contribute significantly to retention and recall of new vocabulary items.

The significant statistical evidence supports the integration of game-based learning activities into English language curricula, particularly for vocabulary instruction. These findings suggest that educators should consider moving beyond passive learning strategies and incorporate more interactive, movement-based approaches that capitalize on students' natural inclination toward play and physical activity. Future research could explore the long-term retention effects of this method and examine whether similar gains can be achieved across different age groups and proficiency levels.

Although the Slap the Board game proved to be effective in vocabulary acquisition, there are some weaknesses that need to be considered in its implementation. First, the game requires a large enough classroom space for students to move safely and freely. In schools with narrow learning spaces or large numbers of students, this activity can be difficult to implement optimally. Yaman et al (2025) mentioned that limited space is the main challenge in implementing physical game-based learning. This spatial constraint becomes particularly problematic in urban schools where classroom sizes are standardized but student populations continue to grow. Teachers may need to divide classes into smaller groups or rotate the activity, which can reduce instructional time and create classroom management challenges. Moreover, furniture arrangement and the availability of appropriate wall or board space can further complicate the setup

process, making spontaneous implementation nearly impossible without prior planning.

Secondly, because the game is competitive and involves fast movements, there is the potential for disciplinary disruptions if the teacher is not able to manage the class properly. Competitive games can lead to aggressive behavior or domination by certain students if not regulated by clear rules of the game. The excitement generated by competition, while beneficial for engagement, can quickly escalate into conflicts over turn-taking, disputed answers, or perceived unfairness. Students with stronger physical abilities or more assertive personalities may monopolize the activity, leaving quieter or less confident learners as passive observers rather than active participants. This dynamic can inadvertently reinforce existing social hierarchies within the classroom and may even discourage some students from participating altogether. Teachers must therefore invest considerable effort in establishing behavioral expectations, monitoring interactions closely, and intervening promptly when necessary to ensure equitable participation.

In addition, not all students have a dominant kinesthetic learning style, because some students who are more visually inclined or reflective may feel uncomfortable or stressed in a learning atmosphere that is too active and fast-paced. Rodríguez et al (2022) stated that students with reflective learning style tend to perform lower in spontaneous or competitive activities. These learners typically prefer time to process information internally, contemplate meanings, and form connections at their own pace. The rapid, high-energy nature of the Slap the Board game may trigger anxiety rather than facilitate learning for such students. Furthermore, students with certain disabilities, sensory processing differences, or social anxiety may find the loud, chaotic environment overwhelming, potentially creating barriers to their learning rather than supporting it. The pressure to respond quickly in front of peers can also activate performance anxiety, which interferes with memory retrieval and undermines the very learning objectives the game is designed to achieve.

Finally, this game focuses more on acquisition and memory training, but less on exploring the understanding of words in the context of sentences or their use in everyday communication. Vocabulary games can enhance receptive knowledge, they must be complemented with contextual use to promote productive vocabulary acquisition (Webb and Nation, 2017). Kirsch (2016) assert that contextualized vocabulary understanding is more effectively built through story or narrative-based methods. While the game successfully strengthens form-meaning connections and improves recognition speed, it does not provide opportunities for students to manipulate vocabulary in authentic communicative situations. Students may become proficient at identifying isolated words but struggle to employ them appropriately in writing or speaking tasks. This limitation highlights a fundamental gap between knowing a word and being able to use it effectively, a distinction that is crucial for developing true communicative competence in English.

The decontextualized nature of the game also means that students miss important information about collocations, connotations, register, and pragmatic usage that are essential for natural language production. Understanding that "make a mistake" is preferred over "do a mistake," or that "challenging" carries a different nuance than "difficult," requires exposure to vocabulary within meaningful contexts. Without this deeper level of engagement, students may accumulate a list of words they can recognize but lack the nuanced understanding needed to deploy them appropriately across various communicative situations. This can result in awkward or inappropriate language use despite an expanded vocabulary range.

Therefore, there is a need for a variety of learning methods that complement these weaknesses so that the learning process becomes more balanced and comprehensive. A blended approach that combines kinesthetic games with reading activities, contextual exercises, collaborative discussions, and writing tasks would address the diverse learning preferences present in any classroom while also developing both receptive and productive vocabulary skills. Teachers should view the Slap the Board game not as a standalone solution but as one component within a rich instructional toolkit. By strategically sequencing different activity types and providing multiple entry points for learning, educators can maximize the benefits of game-based learning while mitigating its limitations, ultimately

creating a more inclusive and effective vocabulary instruction program that serves all learners.

The uniqueness of "Slap the Board" lies in the combination of competition, physical engagement, and group collaboration that encourages more effective learning. Unlike traditional vocabulary drills that rely solely on cognitive processing, this game activates multiple learning channels simultaneously, creating a multisensory experience that enhances memory encoding and retrieval. The competitive element introduces an authentic sense of urgency and excitement that mirrors real-world language use, where quick comprehension and response are often necessary. Meanwhile, the physical act of moving toward the board and making contact with the target word creates a tangible connection between the learner's body and the learning content, establishing what educational psychologists call embodied cognition. This kinesthetic reinforcement helps transform abstract vocabulary items into concrete experiences, making them more memorable and accessible for future recall. Furthermore, the group dynamics inherent in the game foster a collaborative learning environment where students can learn from each other's responses, celebrate collective achievements, and develop social skills alongside linguistic competence.

The British Council, as an international organization focusing on language education, also popularized this game as a strategy in vocabulary acquisition. Through its extensive network of teaching centers worldwide and its influential online resources, the British Council has promoted Slap the Board as an engaging classroom activity suitable for various age groups and proficiency levels. The organization's endorsement lends credibility to the game's pedagogical value and has contributed to its widespread adoption among English language teachers globally. Educational materials, training workshops, and teaching blogs affiliated with the British Council frequently feature this game as an example of best practices in communicative language teaching. This institutional support has helped establish Slap the Board as a recognized instructional tool within the English language teaching community, bridging the gap between informal classroom activities and evidence-based pedagogical approaches. The game's inclusion in professional development programs and teacher resource collections demonstrates its perceived effectiveness among experienced educators and curriculum designers.

Although the game has long been used in teaching, scientific research specifically testing its effectiveness has not been conducted, making it interesting to investigate further. Most evidence supporting its use remains anecdotal, based on teacher observations and informal feedback rather than rigorous empirical investigation. This research gap is significant because it leaves fundamental questions unanswered regarding optimal implementation strategies, the specific cognitive mechanisms through which the game facilitates learning, and its comparative effectiveness against other vocabulary teaching methods. Without systematic research, educators lack evidence-based guidelines for determining which student populations benefit most from this approach, how frequently the game should be employed for maximum impact, or what modifications might enhance its effectiveness for diverse learners. The present study therefore addresses a critical need in the field by providing quantitative data on learning outcomes associated with Slap the Board, contributing to a more scientific understanding of game-based vocabulary instruction. By establishing empirical evidence of its effectiveness, this research not only validates current teaching practices but also opens pathways for future investigations into the underlying pedagogical principles that make kinesthetic vocabulary games successful learning tools.

The results of this study also reinforce the finding that the element of competition in learning can increase student motivation. According to Wulandari et al (2023) the combination of physical movement and immediate reinforcement has a positive effect on vocabulary mastery. When students feel challenged to compete, they are more focused on retaining and understanding new words, which ultimately improves their learning outcomes. The vocabulary learning effect and motivation of students in the competitive classes were better than those in the non-competitive class (Liu et al., 2022). This heightened motivation stems from the game's ability to transform routine vocabulary practice into an exciting challenge where students actively want to participate rather than passively comply with

instructional requirements. The immediate feedback inherent in competitive games—knowing instantly whether one has identified the correct word—provides powerful reinforcement that strengthens learning pathways. Additionally, the public nature of the competition creates a form of social accountability that encourages students to prepare mentally and stay engaged throughout the activity, as their performance is visible to peers and teachers alike.

The competitive structure of Slap the Board also taps into intrinsic psychological needs that drive human behavior, particularly the need for competence and achievement. When students successfully identify and reach the target word before their peers, they experience a sense of mastery that boosts their confidence and encourages continued effort. This positive emotional experience becomes associated with vocabulary learning itself, creating favorable attitudes toward language study that extend beyond the game. Furthermore, the time-pressured nature of competition activates the brain's arousal systems, increasing alertness and attention—cognitive states that are optimal for encoding new information into long-term memory. The adrenaline and excitement generated during gameplay may also trigger the release of neurotransmitters associated with reward and pleasure, such as dopamine, which research suggests plays a crucial role in strengthening memory consolidation. These neurobiological responses help explain why competitive vocabulary games often produce learning gains that exceed those of non-competitive instructional methods.

However, it is important to note that the motivational benefits of competition are not universally experienced across all learners. While any students thrive in competitive environments, others may experience heightened anxiety, fear of embarrassment, or decreased self-efficacy when their performance is compared publicly to that of their peers. Teachers must therefore carefully structure competitive activities to ensure they remain supportive rather than threatening, perhaps by emphasizing personal improvement over peer comparison, rotating team compositions to distribute opportunities for success, or incorporating collaborative elements that balance individual competition with group achievement. When implemented thoughtfully, competition can serve as a powerful motivational tool that energizes vocabulary learning, but it must be balanced with inclusive practices that protect the learning environment for all students regardless of their competitive disposition or current proficiency level.

CONCLUSION

The results showed that the Slap the Board game had an effect on increasing the vocabulary retention of third-grade elementary school students. This is evidenced by the results of the average value before and after treatment from 57.5 to 75 after the treatment. Based on the hypotheses testing, the use of slap the board game in English learning has an influence on students' vocabulary acquisition.

The use of the "Slap the Board" game is suggested as a fun and effective vocabulary learning method for elementary school educators to consider. As the game incorporates physical, visual and auditory elements, this approach is in line with the principle of Total Physical Response by Asher (1969) which is proven to strengthen students' memory retention through movement. In addition, the British Council's recommendation that Slap the Board is suitable for vocabulary revision at the beginner level further strengthens its potential for implementation in lower primary grades. However, teachers also need to adjust the use of this game to the classroom conditions and student characters, and consider integration with other methods such as story-based games so that vocabulary learning is not only rote but also contextual Azizah et al., 2023

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