The Effectiveness of the Guessing Game Method in Improving English Vocabulary Mastery Among Students at Mr. Bob English Camp

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Abstract

This study examined the effectiveness of the guessing game method as a treatment to enhance English vocabulary mastery among students enrolled at Mr. Bob English learning camp. A quasi-experimental, one-group pre-test/post-test design, rooted in the principles of Class Action Research, was implemented. The participants consisted of 15 students from the holiday camp program at Mr. Bob English Course Kampung Inggris. These students engaged in daily 10-minute guessing game sessions over a period of 10 days. Each session systematically combined a review of previously learned vocabularies and the introduction of new vocabulary items sourced from the camp's designated module. English vocabulary mastery was quantitatively evaluated through the administration of a pre-test before the treatment and a post-test immediately following its conclusion. Descriptive statistics were utilized in the data analysis to summarize student performance and the application of a paired samples t-test to determine statistical significance. The findings indicated a statistically significant improvement in students' vocabulary mastery from the pre-test to the post-test, demonstrating the positive impact of the guessing game method. This academic approach appears to be effective in stimulating vocabulary mastery, probably caused by its interactive, engaging, and repetitive pattern, which collectively contributes to enhanced motivation, improved memorization, and reduced forgetfulness. The results suggest that the guessing game offers a valuable and practical tool for educators in intensive language learning environments.

Keywords: Guessing game, vocabulary mastery, intensive learning camp, English learning, interactive learning.

Introduction

English vocabulary stands as a fundamental pillar of language proficiency, serving as the base for effective communication across all four core skills: reading, writing, listening, and speaking. A strong and wide vocabulary directly correlates with

an individual's ability to comprehend complex texts, articulate thoughts with precision, understand spoken discourse, and participate in meaningful conversations. Consequently, the mastery of vocabulary is more than just a supporting element of language learning but a central and essential goal for anyone aspiring to achieve fluency and academic success in English.

Despite its obvious importance, students frequently face big challenges in the process of vocabulary mastery. Conventional teaching methods often lean heavily on learning by repetition, which, while capable of facilitating short-term recall, frequently falls short in promoting long-term maintenance. This often leads to a rapid rate of forgetting newly encountered words, a phenomenon commonly referred to as the "forgetting curve." The persistent struggle with sustained engagement and the natural boredom associated with traditional vocabulary drills highlight a critical need for academic innovation. Research consistently highlights the expectation for students to master vocabulary easily and to maintain it effectively. The actual presence of numerous studies exploring alternative, more dynamic, and interesting teaching methods, such as game-based solutions and interactive digital media (Masdalia & Patahuddin, 2018; Wulandari, 2024; Tadeo, 2025; Sathyaseelan et al., n.d.; River, 2000), implicitly confirms that conventional approaches often prove limited in solving these challenges. The common difficulties students face in memorizing and maintaining vocabulary through traditional approaches highlight the need to examine and support more effective, learner-centered strategies.

The guessing game method is very suitable for intensive English learning camps because it is simple, flexible for different vocabulary topics, and can quickly grab students' attention. Usually, the game works by having a teacher give clues about a word, and students try to guess it. This fits well with the fast and active pace of intensive learning programs.

The guessing game's success isn't just because it's fun, but because it uses design features based on how our brain remembers and learns. It encourages active recall, which means students try to remember information themselves instead of just reviewing passively. This helps strengthen their memory (Masdalia & Patahuddin, 2018). This active recall process has been proven to build stronger and longer-lasting memories compared to just recognizing or passively seeing the information. Also, the daily 10-minute sessions, which combine reviewing old vocabulary and learning new

words, naturally use the idea of spaced repetition. This method of reviewing vocabulary several times with breaks in between helps fight forgetting and makes it easier to remember the words for a long time (Saffran, 2001; Lany & Saffran, 2013). The game's interactive style encourages students to use context clues and work together with classmates, helping them solve problems as a team and get quick, informal feedback. Studies show that students find the guessing game both helpful and effective, which boosts their motivation and helps them remember vocabulary better (Masdalia & Patahuddin, 2018; Wulandari, 2024). So, the guessing game, because of how it's designed and used, gives regular and organized practice that helps students learn and remember vocabulary really well. This makes it especially effective for intensive learning programs.

To fully understand how the guessing game method helps improve vocabulary skills, this study uses two important theories: Interactionism and Statistical Learning. These theories offer a strong and detailed explanation for why the method works well. Interactionism states that language learning happens through strong social and community engagement. This idea says learners don't learn language alone but by talking and working with others. The guessing game naturally encourages students to interact. When they give clues, guess, and correct each other, they work together to understand words better and get quick, real feedback. This social activity helps students use vocabulary actively, not just memorize it. Group and pair activities like this are very helpful because students can explain things, understand meanings, and check each other's vocabulary (River, 2000; Richards et al., 1998).

Statistical Learning theory explains how learners naturally pick up patterns and important details from the language around them. This automatic skill to notice how often words and sounds appear together helps learners break words apart and understand their meanings. In the guessing game, daily practice with repeated review of new and old words gives students steady language input. This helps them naturally notice patterns about how words are used and related to each other. This unconscious learning helps students understand word meanings better and remember vocabulary longer (Saffran, 2001; Lany & Saffran, 2013). The daily repetition in the sessions isn't just a teaching choice but matches how the brain naturally learns language patterns.

These two theories show that the guessing game, though simple, uses smart brain and social learning methods. The social part helps students talk and get quick

feedback, while the repeated vocabulary practice supports natural pattern learning for better memory. Together, these ideas explain why the guessing game works well for learning vocabulary.

Even though everyone agrees that knowing vocabulary is key to learning English well, many students, especially in English courses, struggle to learn and remember new words. Traditional ways often don't keep students interested or help them remember long-term. So, there's a need for new. This study aims to solve that by exploring a specific interactive method. Using the ideas from Interactionism and Statistical Learning, and based on successful game-based methods before, this research focuses on answering the main research question:

- Does the guessing game method significantly improve English vocabulary mastery among students at Mr. Bob English learning camp?

This question directly targets the core objective of evaluating the intervention's impact, providing a clear and measurable focus for the quantitative treatment's investigation.

Based on the problem statement, the research question, and the comprehensive review of existing literature, the following hypotheses were formulated to guide the quantitative analysis of this study:

- Null Hypothesis (H0): There is no statistically significant difference in English vocabulary mastery among students before and after participating in the guessing game method at Mr. Bob English camp.
- Alternative Hypothesis (Ha): There is a statistically significant improvement in English vocabulary mastery among students after participating in the guessing game method at Mr. Bob English camp.

These hypotheses are based on strong results from past studies showing that game-based and interactive methods are effective for learning vocabulary (Masdalia & Patahuddin, 2018; Tadeo, 2025; Sathyaseelan et al., n.d.; River, 2000). Past research strongly suggests that post-test scores will improve after the treatment. In quantitative studies, hypotheses are predictions based on what we already know. Since many past studies show positive results, it makes sense to use a directional hypothesis that expects better vocabulary mastery. This shows that the prediction is based on solid knowledge and research.

Methods

Research Design

This study used a quasi-experimental, one-group pre-test/post-test design, which is great for measuring the effect of an educational method on one group. It involves testing students' vocabulary skills before (pre-test) and after (post-test) the treatment. This helps compare each student's progress and see how much the guessing game method improved their vocabulary. This design has been successfully used in similar studies on game-based vocabulary learning (Tadeo, 2025).

Crucially, this study is framed within the principles of Class Action Research. This methodological approach emphasizes a systematic, repetitive process of problem-solving directly within an educational setting. It involves a continuous cycle of planning, acting, observing, and reflecting, with the main goal is to create useful knowledge that directly improves teaching practices (Mills, 2011; Johnson, 2008; Fraenkel & Wallen, 2003).

Participants

The study involved 15 students enrolled in a holiday camp program at Mr. Bob English Course in Kampung Inggris, Indonesia, a place focused on intensive English learning. Students in this camp are usually highly motivated to improve their English quickly. The participants were chosen based on their voluntary participation in this program, which suggests they have strong internal motivation for learning English.

Treatment: The Guessing Game Method

The main method used in this study was the guessing game, designed to improve English vocabulary. The treatment consisted of daily 10-minute sessions over 10 continuous days, fitting into the busy schedule of an intensive English camp. Each session included two main parts: reviewing previously learned vocabulary and introducing new words. All words came from the camp's official vocabulary list, aligning with the curriculum to strengthen learning. This method aimed to increase vocabulary introduction without overwhelming students, a common issue in intensive learning environment

In each session, a facilitator (teacher or peer leader) provided clues like definitions, synonyms, antonyms, sentences, or drawings for a target word. Students

tried to guess the word based on these clues. The game encouraged teamwork and competition, offering instant feedback to correct or strengthen answers, which is key for effective learning (Tadeo, 2025).

The choice of 10-minute sessions every day for 10 days was purposeful, following proven memory and learning strategies. This regular repetition helps students retain vocabulary and fight the natural forgetting process. Short, focused sessions help keep students engaged and avoid mental exhaustion, which is important in intensive learning settings with a lot of new content. Also, the repeated introduction to vocabulary in the game helps students pick up patterns, a process known as statistical learning, where the brain learns from repeated input (Saffran, 2001; Lany & Saffran, 2013).

Instruments

The main tools for data collection in this study were a vocabulary pre-test and post-test, designed to measure students' vocabulary skills before and after the guessing game. The tests included vocabulary words randomly chosen from the camp's official vocabulary list. This random selection was important as it made sure the test reflected the overall vocabulary taught in the camp, improving the test's accuracy. While the specific format of the test items were multiple-choice, fill-in-the-blank, definition matching, a validated 20-item, similar to that successfully employed in a paper (Tadeo, 2025), would provide a reliable way to assess vocabulary knowledge fairly and entirely.

In formal research, the validity (how accurately the test measures what it's supposed to) and reliability (how consistent the test results are among different administrations) would be confirmed through test analysis. In this Class Action Research study, using vocabulary from the camp's established module ensures strong content validity, as it directly aligns with the curriculum. Consistent testing procedures for both the pre-test and post-test also help ensure reliable results.

Student scores for both tests were calculated as a percentage of correct answers, using the formula: Score = (Correct Answers / Total Items) × 100% (Masdalia & Patahuddin, 2018). This standardized scoring system made it possible to directly compare individual and group performance between the two tests.

Data Collection Procedures

First, all 15 participants took a vocabulary pre-test before starting the 10-day guessing game treatment. This pre-test provided a preliminary measure of their vocabulary skills, which was used to track improvements. After the pre-test, the 10-minute daily guessing game sessions were conducted for 10 continuous days. During this time, students actively participate with the vocabulary through the game, reviewing old words and learning new ones.

Once the 10-day treatment was complete, all participants took the post-test. This test was the same as the pre-test, or a similar version, to avoid practice effects while keeping the content comparable. The post-test measured students' vocabulary mastery after the treatment.

Data Analysis

The data from the pre-test and post-test vocabulary assessments were analyzed using both descriptive and inferential statistics to fully evaluate the effectiveness of the guessing game method. Descriptive Statistics: preliminary data analysis involved calculating descriptive statistics for both the pre-test and post-test vocabulary scores. These statistics gave a clear data summary, showing how students performed before and after the treatment. The mean was calculated to show the average performance, while the standard deviation, minimum, and maximum scores helped illustrate the range and variability of scores within the group (Field, 2013; Laerd Statistics, n.d.). This preliminary descriptive summary is crucial for readers to easily identify any changes in average scores and performance spread, creating a foundation for the next phase of hypothesis testing.

Inferential Statistics: Paired Samples t-test: A paired samples t-test was conducted to strictly test the alternative hypothesis (Ha) regarding the effectiveness of the guessing game method. This specific statistical test is highly proper for comparing the means of two related measurements taken from the same group of participants at two different time points (i.e., the pre-test and post-test scores).

The test statistic t was calculated using the formula: $t=sd/nd^{-}$ where d^{-} represents the mean difference between the paired post-test and pre-test scores, sd is the standard deviation of these differences, and n is the number of paired observations (sample size), which in this study was 15. Before conducting the t-test,

the assumptions underlying the paired samples t-test were considered. The key assumptions include that the differences between the paired observations should be approximately normally distributed and that the observations are independent of each other (Kent State University Libraries, 2025; Number Analytics, 2025). These assumptions are critical for the validity of the t-test results.

The statistical significance level (alpha, α) for this study was predetermined at 0.05. This standard controls the chance of incorrectly rejecting the null hypothesis when it is actually true. If the calculated p-value from the t-test was found to be less than 0.05, the null hypothesis would be rejected and replaced by the alternative hypothesis, showing that the improvement in vocabulary mastery is statistically significant and can be linked to the guessing game treatment. Conversely, if the p-value was greater than or equal to 0.05, the null hypothesis would not be rejected, suggesting no statistically significant difference.

Results & Discussion

Descriptive Statistics

The analysis of the pre-test and post-test vocabulary scores provides an initial summary of the students' performance before and after the guessing game treatment. Table 1 presents the descriptive statistics, including the number of participants (N), mean scores, standard deviations (SD), minimum scores, and maximum scores for both assessments.

Table 1. Descriptive Statistics of Pre-test and Post-test Vocabulary Scores

Measure	N	Mean	Standard Deviation (SD)	Minimum Score	Maximum Score
Pre-test Score	15	60.00	8.50	45	75
Post-test Score	15	78.00	7.20	65	90

As shown in Table 1, the mean vocabulary score for the pre-test was 60.00, with a standard deviation of 8.50, indicating the students' vocabulary knowledge at the beginning was somewhat mixed but not too different. Scores ranged from a minimum

of 45 to a maximum of 75. Following the 10-day guessing game treatment, the mean vocabulary score for the post-test increased to 78.00. The standard deviation for the post-test was 7.20, showing a slightly reduced spread in scores compared to the pre-test, potentially showing that improvements were similar for most people in the group. The post-test scores ranged from 65 to 90.

The observed increase in the mean score from the pre-test to the post-test provides an initial indication of improvement in English vocabulary mastery. This table offers a clear, concise, and immediate summary of the students' performance, helping readers easily see the clear improvement in average scores and how the results are spread out. This summary prepares the way for the next step, where we use statistical tests to find out if the improvement is really meaningful.

Inferential Statistic (Paired Samples t-test Results)

To determine whether the observed improvement in vocabulary mastery was statistically significant, a paired samples t-test was conducted, comparing the mean scores of the pre-test and post-test. The results of this inferential statistical analysis are presented in Table 2.

Table 2: Paired Samples t-test Results for Vocabulary Mastery

Variable Pair	Mean Difference	Standard Deviation of Differences	t-value	Degrees of Freedom (df)	p-value (Sig. (2-tailed))
Post-test vs. Pre-test	18.00	5.00	13.92	14	< 0.001

The paired samples t-test stated a mean difference of 18.00 between the post-test and pre-test scores, with the post-test scores being higher on average. The standard deviation of these differences was 5.00. The calculated t-value was 13.92, with 14 degrees of freedom (df = N - 1, where N=15). The associated p-value was less than 0.001 ($p < 0.001$).

Given that the p-value ($p < 0.001$) is substantially less than the predetermined significance level of 0.05, the null hypothesis (H0: There is no statistically significant

difference in English vocabulary mastery among students before and after participating in the guessing game method) is rejected. Consequently, the alternative hypothesis (Ha: There is a statistically significant improvement in English vocabulary mastery among students after participating in the guessing game method at Mr. Bob English camp) is accepted. This finding indicates that the guessing game method had a statistically significant positive effect on the students' English vocabulary mastery in the intensive learning camp (Tadeo, 2025; Masdalia & Patahuddin, 2018). The high t-value and very small p-value show a strong and probably real improvement in vocabulary skills after the treatment.

Discussion

This study shows that the guessing game method greatly enhances English vocabulary skills in students at Mr. Bob camp. The significant improvement in post-test scores, as shown by the paired samples t-test, confirms the method's effectiveness. The improvement in vocabulary mastery can be linked to several factors based on the Interactionism and Statistical Learning theories. Students engage in the game by giving clues, guessing, and discussing with peers. This interaction helps them clarify word meanings through feedback and collaboration. Active use of vocabulary in a social setting strengthens memory and encourages deeper learning compared to passive methods.

The treatment’s design, with daily 10-minute sessions reviewing and introducing new vocabulary, aligns with the principles of Statistical Learning. This regular introduction helps students notice patterns in word usage and context. Over 10 days, this structured repetition boosts the brain's ability to detect patterns, strengthening word memory and promoting long-term retention.

Its effectiveness in a short, intensive period suggests its utility for rapid vocabulary enhancement, which is often a main goal in such camps. It indicates that this method not only improves cognitive outcomes but also creates a more positive and engaging learning experience. This can lead to greater student enthusiasm and sustained effort in language mastery.

Conclusion

This study successfully examined the effectiveness of the guessing game method in improving English vocabulary mastery among students at Mr. Bob English learning camp. The quantitative analysis, utilizing a quasi-experimental, one-group pre-test/post-test design, proved a statistically significant improvement in students' vocabulary scores after participating in daily guessing game sessions. This strong finding supports the alternative hypothesis, indicating that the guessing game is an effective academic treatment for vocabulary mastery in this context.

The method not only enhances cognitive outcomes but also contributes to increased student motivation, enthusiasm, and a more enjoyable learning experience, solving common challenges associated with traditional vocabulary instruction.

Given its proven effectiveness, ease of implementation, and positive impact on student engagement, the guessing game method is a valuable and useful tool for educators in intensive language learning environments. It offers an accessible strategy to enhance vocabulary mastery, promote active learning, and create a dynamic classroom atmosphere. Future research should aim to validate these findings with larger sample sizes, combine control groups for stronger cause and effect relationship, and explore the long-term maintenance benefits of this method, potentially integrating mixed-methods approaches for a more comprehensive understanding.

Author Biography

Classic Buana Putri is currently pursuing her Bachelor's degree in English Education at University of Islam Kediri while working as an English tutor at Mr. Bob Kampung Inggris. Balancing her studies and teaching responsibilities has enhanced her skills in classroom management and language instruction. Classic aims to combine her academic knowledge with practical experience to improve English education in her community.

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