

THE EFFECT OF APPLYING BAAMBOOZLE AS AN INTERACTIVE GAME ON STUDENTS' VOCABULARY ACHIEVEMENT

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Abstract

Vocabulary mastery is an important component of learning English as a foreign language. However, many students have limited vocabulary and may become less engaged when conventional teaching methods are used. Therefore, this study aimed to investigate the effectiveness of the interactive game Baamboozle in improving students' vocabulary mastery. This quantitative study employed a one-group pre-test and post-test design. The participants were eighth-grade students at SMPN 9 Tegal in the 2025/2026 academic year. Data were collected through multiple-choice vocabulary tests administered before and after the treatment and an observation checklist. The data were analyzed using SPSS version 25, including validity, reliability, descriptive statistics, normality, and t-test analyses. The results showed that the students' mean score increased from 70.06 on the pre-test to 85.38 on the post-test. The t-test result showed a significance value of $0.000 < 0.05$, indicating a statistically significant improvement in students' vocabulary mastery after using Baamboozle. Therefore, the null hypothesis was rejected, and the alternative hypothesis was accepted. These findings suggest that Baamboozle can effectively improve students' vocabulary mastery by creating a more engaging and interactive learning environment. The study recommends the use of interactive games such as Baamboozle as a supplementary medium for teaching vocabulary to junior high school students.

Keywords: Baamboozle; interactive game; vocabulary mastery; junior high school;

1 INTRODUCTION

Vocabulary mastery plays a fundamental role in studying English as a Foreign Language, especially at the middle school level where students are still building their linguistic foundation. Without sufficient vocabulary knowledge, learners encounter significant obstacles in expressing ideas, understanding instructions, and interpreting texts accurately. Vocabulary serves as the building blocks of communication, enabling students to construct meaningful sentences and participate actively in classroom interactions (Sahnan & Daulay, 2025).

In the context of Indonesian junior high schools, vocabulary development is often emphasized as a core component of the English curriculum because it serves as the basis for excelling in other language abilities like reading, writing, listening, and speaking. Learners are expected to acquire a sufficient range of vocabulary in order to understand texts, follow classroom instructions, and express their ideas effectively. However, despite its importance, many students still struggle to acquire and retain new words effectively due to limited exposure, lack of practice, and less engaging learning methods. In many cases, vocabulary teaching is still dominated by memorization techniques that do not provide meaningful context or active student involvement. As a result, students tend to forget newly learned words quickly and find it difficult to use them in real communication.

This condition indicates that vocabulary learning requires systematic instruction supported by appropriate strategies that promote active engagement and repeated practice. Teachers need to create learning environments that encourage students to interact using vocabulary in engaging and significant manners. Therefore, strengthening students' vocabulary competence becomes an essential priority in English language teaching, especially by integrating innovative and interactive approaches that can support long-term vocabulary retention and improve overall language proficiency.

Traditional vocabulary teaching approaches are frequently defined by instructor-focused teaching and repetitive memorization techniques. In many classrooms, vocabulary is introduced through word lists, translation exercises, or repetitive drills that require students to memorize definitions without meaningful context. Although these methods may provide short-term recall, they often do not encourage lasting retention and deeper understanding.

Students may become passive recipients of information rather than participating actively in the learning experience. This situation can reduce classroom interaction and diminish students' enthusiasm toward learning English. Furthermore, conventional approaches rarely integrate interactive elements that stimulate critical thinking or collaboration. As a result, there is a growing concern that traditional strategies alone are insufficient to address contemporary students' learning needs. In response to these challenges, Creative and engaging instructional methods becomes very important in contemporary education. Teachers are advised to implement teaching techniques that actively engage students in learning and boost their participation.. Interactive learning environments allow students to practice vocabulary through meaningful tasks rather than isolated memorization. Such approaches promote collaboration, competition, and immediate feedback, which are essential for sustaining motivation. When students are actively engaged, they are more likely to retain new vocabulary and apply it in various contexts. Moreover, interactive strategies help create a positive classroom atmosphere that supports student participation. Therefore, exploring alternative teaching methods is necessary to improve vocabulary achievement effectively.

Technological developments in education have changed everything. the way language studying is conducted in the twenty-first century. Digital tools provide opportunities for teachers to design more dynamic and student- centered learning experiences. Technology-based instruction allows learners to access multimedia resources, interactive exercises, and instant feedback that enhance comprehension. In English language classrooms, digital platforms can facilitate vocabulary learning through games, quizzes, and collaborative activities.

Students today are generally familiar with digital environments, which makes technology integration particularly relevant and appealing. Incorporating technological tools into instruction can also address varied learning approaches by integrating visual, auditory, and tactile components. Consequently, technology offers significant potential to improve the effectiveness of vocabulary teaching

Among various digital platforms available for classroom use, Baamboozle has emerged as an interactive online game designed to support educational activities. Baamboozle allows teachers to create customized quizzes and vocabulary exercises presented in a game-like format. The platform emphasizes teamwork and competition, making it suitable for classroom implementation. Teachers can incorporate images, questions, and scoring systems that enhance students' involvement during lessons. Unlike traditional worksheets, Baamboozle encourages students to participate collectively and respond actively to prompts. Its simple interface enables both teachers and students to navigate the activities easily. Therefore, Baamboozle offers practical advantages for vocabulary instruction in junior high school setting.

The potential of Baamboozle in vocabulary learning lies in its capacity to combine repetition, engagement, and immediate feedback within an interactive framework. Through repeated exposure to vocabulary items during gameplay, students can strengthen memory retention effectively.

Based on the issues and limitations identified above, this study seeks to analyze the impact of applying Baamboozle as an interactive game on students' vocabulary achievement through a quantitative experimental approach. By employing a pre-test and post-test control group framework, the study seeks to measure the statistical significance of vocabulary improvement between experimental and control groups. This design allows for a clearer comparison and provides stronger empirical support concerning the efficacy of the therapy. The research focuses specifically on 8th grade students of SMP N 9 Tegal during the school year 2025/2026 to address contextual relevance. Through systematic data analysis, the research intends to offer reliable evidence concerning the impact of Baamboozle on vocabulary mastery. Ultimately, The results are anticipated to aid in both theoretical and practical advancements in the creation of novel vocabulary teaching methods. Consequently, this research is carried out to fill the existing research gaps and provide updated, rigorous empirical evidence in the field of Digital Game-Based Learning.

2 METHODOLOGY

This research is referred to as quantitative research. Quantitative research looks at the relationship between variables in order to answer research questions. These variables can be measured by using tests or even tools, and the numerical data that is obtained can be statistically evaluated. The researcher used the experimental research method in this study, Data analysis in this study began with aobsservation on the classroom. The researcher employed thematic examination to recognize and explain trends regarding the implementation of Baamboozle as an interactive game for vocabulary instruction. This analysis focused on the implementation stages during the learning process, including how the game was

introduced, conducted, and integrated into classroom activities. Furthermore, the analysis explored student responses—such as participation, engagement, enthusiasm, and interaction—during the learning sessions. Through this approach, the researcher aimed to provide a detailed overview of how Baamboozle was implemented and how students reacted to its use in vocabulary learning.

Following the quantitative analysis, Quantitative data collected from vocabulary assessments, encompassing pre-test and post-test results, were evaluated utilizing SPSS. This analysis involved descriptive statistics to determine the mean scores and standard deviations of student performance, as well as inferential statistical tests to examine whether the use of Baamboozle had a significant effect on students' vocabulary achievement.

There are 286 students in the population. This study employed the purposive sampling method, and the sample consists of students from class 8G at SMPN 9 Tegal City. The researcher choosing Class 8G because that is the only class that has received prerequisite material, or that class has the lowest average grade so it is suitable for new learning actions/methods data collection used tests, namely pre-test and post-test, which conducted in class 8G containing 32 students as the research sample.

3 RESULTS

This research has been carried out in SMPN 9 Tegal as a school or research site for as long as eight meetings. The study was conducted in classes 8G as experimental class. This research aims to answer and also prove the research statements based on data processing about "How is Baamboozle implemented as an interactive activity for teaching vocabulary to 8th learners of SMP N 9 Tegal in the academic year of 2025/2026 and Is there a significant effect of applying Baamboozle as an interactive game on students' vocabulary achievement". In this study, the investigator used SPSS 25 as a tool to process the data.

In this data processing, the researcher will prove two statements about the research that has already been conducted and collected. Data is collected by pre- and post-tests. The pre test was executed before the baamboozle was implemented and the posttest was executed after the baamboozle was used.

To answer and prove the hypothesis that there is or is not an "The Effect of the Implementation of the Baamboozle Interactive Game on Vocabulary Mastery in 8th grade students of SMPN 9 Tegal City", the data is analyzed use the Statistic Descriptive, Normality Test, and T-test. (Simple Paired T-test).

3.1 The Result of Technique Analyze Data

Data is collected by pre- and post-tests. The pre test was executed before the baamboozle was implemented and the posttest was executed after the baamboozle was used. Data was collected in class 8G containing 32 students as the research sample..

3.1.1 Descriptive Statistics

Descriptive statistic analysis aims to see the minimum, maximum, and average values of the pre-test and post-test questions. The following are the results of the descriptive statistical test :

Table 1
Result Test Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
PreTest	32	59	84	70.06	6.164
PostTest	32	78	94	85.38	3.916
Valid N (listwise)	32				

Based on the findings of the descriptive statistical test, it can be seen that 32 data (N) have a minimum value, maximum average and standard deviation. The minimum value itself means showing the smallest value, while the maximum value shows the largest value in a research data, the average value shows the average number in a research data while the standard deviation value shows how far the data deviation occurs. The following are the minimum, maximum, mean and standard deviation values in this study, the pre-test minimum value is 59.00, the maximum value is 84.00, and the average value is 70.06. Meanwhile, the minimum post-test value is 78.00, the maximum value is 94.00, and the average value is 85.38. These results show an increase in the pre-test value, namely before the implementation of Baamboozle, and the post-test after the implementation of Baamboozle.

3.1.2 Normality Test

The normality test was used to determine whether the data collected from all students had a normal distribution. The normality test used in this study was the Kolmogorov-Smirnov normality test, with the decision-making criteria being that if the statistical significance value exceeds >0.05 , the results appear to be normally distributed, and if the significance value is below <0.05 , the data obtained are not normally distributed. The following are the results of the normality test in this study

Table 2
Result Normality of Kolmogorov-Smirnov Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		32
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	3.63360460
Most Extreme Differences	Absolute	.097
	Positive	.092
	Negative	-.097
Test Statistic		.097
Asymp. Sig. (2-tailed)		.200 ^{c,d}

Based on the findings of the Kolmogorov-Smirnov normality test above, it can be seen that the significance value is $0.200 > 0.05$. This means that the collected data are normally distributed.

3.1.3 Paired Sample T-Test

Inferential statistics in this study were used to see whether there was an influence or relationship between the implementation of the interactive game Baamboozle on improving students' vocabulary. Inferential statistics in this study used the t-test or partial test. With the decision-making criteria if the significance value <0.05 then it can be interpreted that there is an influence or relationship, whereas if the significance value > 0.05 then it can be interpreted that there is no influence or relationship between the implementation of the Baamboozle game on improving students' vocabulary. The following are the results of the inferential statistical test using the t-test in this study:

Tabel 3
Result Paired Sample T-Test

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	PreTest - PostTest	-15.313	5.943	1.051	-17.455	-13.170	-14.575	31	.000

Based on the findings of the inferential statistics of the partial test above, it can be seen that the significance value is $0.000 < 0.05$. So it can be concluded that there is an influence or relationship between the application of the interactive game Baamboozle on improving students' vocabulary.

4 CONCLUSIONS

In conclusion, the implementation of Baamboozle began with an explanation to the students regarding the nature of the tool, the implementation process, and the procedural flow. Prior to implementation, the study administered a 50-item multiple-choice test to identify questions suitable for representing the material to be covered. Based on the try-out results, the most appropriate and representative 32 items were selected to construct the pre-test and post-test. Following the try-out and prior to the Baamboozle intervention, students' vocabulary understanding was assessed via a pre-test.

After the Baamboozle implementation, data analysis using descriptive and inferential statistics (partial test/t-test) revealed that the mean pre-test score was 67.06, while the mean post-test score rose to 85.38. Hypothesis testing resulted in the rejection of H_0 and the acceptance of H_1 , indicating that the use of the interactive game Baamboozle had a positive effect on improving students' vocabulary mastery at SMPN 9 Tegal City, with a significance value of 0.000 ($p < 0.05$). The implementation of the interactive game Baamboozle effectively improved students' vocabulary mastery at SMPN 9 Tegal City; this is evidenced by the score improvements observed in the descriptive statistical analysis comparing conditions before and after the Baamboozle intervention.

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