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The Role of the Pictoword Game in Boosting Students' Vocabulary Achievement at Mts Negeri 1 Sragen

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Abstract

This study aims to demonstrate the effectiveness of implementing the pictoword game on students' vocabulary achievement in seventh graders at MTs Negeri 1 Sragen. The author used a quantitative research method with a quasi-experimental design. The author took student samples through purposive sampling. The pre-test results showed that the experimental group scored lower than the control group. The average pre-test score in the experimental group was 61.36 and the average pre-test of the control group was 65.60. The two groups were given pre-tests at the same time. The experimental group received four sessions of treatment while learning vocabulary using the Pictoword game. The control group learned vocabulary only through conventional learning. To determine whether the experimental group improved their vocabulary achievement, the authors conducted a post-test. The authors used the IBM SPSS Statistics Base 22.0 program to calculate all data in this study. The results of this study showed that the experimental group's average score increased to 86.33, while the control group's average post-test score was 84.77. Only the experimental group improved their vocabulary achievement because they were treated with four tests using the Pictoword Game. Hypothesis analysis also determined that the alternative hypothesis (Ha) was accepted, meaning there was a significant effect in implementing the pictoword game on students' vocabulary achievement. This study can be concluded that using the pictoword game can help students learn vocabulary more easily but in a fun way, stimulate students to learn more actively, and also improve students' vocabulary achievement.

Keywords: Pictoword Game, Vocabulary Achievement, Language Learning, Educational Technology

Introduction

Vocabulary serves as the heartbeat of language. According to Milton (2009), it encompasses the words, phrases, and idioms that act as vital symbols to describe the world and facilitate the exchange of thoughts and emotions. However, mastering vocabulary goes beyond simple memorization. As Nation (2001) emphasizes, vocabulary is an intricate system of meanings. Knowing a word requires a multi-faceted understanding: from its phonological (spoken) and orthographic (written) forms to its grammatical behavior, collocations, frequency of use, and appropriate register in social contexts.

Vocabulary achievement is a measure of a learner's proficiency and success in acquiring this linguistic system. It is not a static outcome but is dynamic, influenced by both educational and non-educational factors. Within the classroom, this achievement is a direct result of the synergy between effective teaching strategies, the level of student motivation, and the quality of the learning environment. Therefore, high vocabulary achievement indicates not just memory, but the successful integration of these various learning components.

In the journey of language acquisition, vocabulary acts as the fundamental building block. Without a sufficient "word bank," students face significant hurdles in mastering the four core skills: listening, speaking, reading, and writing. In the Indonesian Junior High School (MTs) context, students are expected to reach a functional level of literacy. However, the reality at MTs Negeri 1 Sragen shows a disconnect. Many students view English as an intimidating subject, largely because they lack the necessary vocabulary and are often discouraged by the monotony of traditional rote-memorization methods.

Ideally, the English language classroom should be a hub of interaction and engagement. Preliminary observations at MTs Negeri 1 Sragen, however, reveal a trend of disengagement. Students frequently lose interest and struggle to recall the meanings of words taught in previous sessions. They face persistent difficulties, such as an inability to infer meaning from context, a general lack of interest in reading, and a deficiency in self-confidence when attempting to speak.

While Game-Based Learning (GBL) has been widely researched, there remains a distinct empirical gap concerning the use of the Pictoword Game within the specific environment of an Islamic Junior High School (MTs). Most existing literature focuses on generic flashcards or puzzles. There is a lack of deep analysis on how the "compound word" logic inherent in Pictoword triggers cognitive associations in students at the MTs level—especially in state religious schools like MTs Negeri 1 Sragen, which possess unique student demographics.

To address this problem, the researcher proposes using the Pictoword game. Pictoword, a word-guessing game using pictures, offers a visual-associative learning path where students must combine two pictures to form a new word. This method is expected to bridge the gap by transforming vocabulary learning from a passive activity into a problem-solving challenge.

Numerous scholarly investigations have been conducted to explore the integration of gamification within vocabulary instruction, highlighting its potential to transform traditional learning environments. Specifically, the research carried out by Rozi (2013), Mawaddah (2010), and Sari (2016) has consistently demonstrated that interactive tools, such as crossword puzzles, play a crucial role in elevating students' engagement levels. Their findings suggest that when students are actively entertained, their cognitive retention and overall mastery of new words improve significantly. Building upon this established foundation, the present study seeks to narrow its focus by investigating the pedagogical impact of the Pictoword game, a visual-based word association tool, to see if it yields similar or superior outcomes in a modern classroom setting.

The primary objective of this research is to gather robust empirical evidence concerning the effectiveness of incorporating the Pictoword Game as a core instructional strategy. This study specifically targets the enhancement of vocabulary acquisition among seventh-grade students at MTs Negeri 1 Sragen during the 2024/2025 academic year. By implementing this visual-linguistic approach, the researcher aims to determine whether the game can bridge the gap between rote

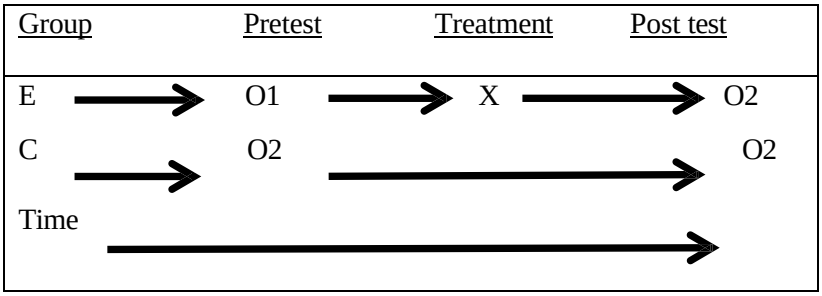
memorization and meaningful learning, thereby providing a clearer picture of how digital-inspired games influence the language development of early secondary school learners. Based on the preceding theoretical and conceptual framework, the central hypothesis of this study is that the Pictoword game can be effectively applied to enhance students' vocabulary achievement.

Research Methodology

One of the most cited authors regarding research design (Creswell, 2014 :5). He distinguishes methodology as the strategy or plan of action. He says that methodology is the strategy, plan of action, process or design lying behind the choice and use of particular methods and linking the choice and use of methods to the desired outcomes. Acording to some authors emphasize that methodology is not just about the tools (methods), but the logic and philosophy used to solve the research problem (Louis Cohen, Lawrence Manion, and Keith Morrison, 2017). The aim of methodology is to help us to understand, in the broadest possible terms, not the products of scientific inquiry but the process itself.

The treatment was conducted over a period of three weeks, consisting of six meetings in total. Each meeting lasted for 80 minutes (2 x 40 minutes), following the standard schedule of MTs Negeri 1 Sragen.The preliminary test is administered to students at the beginning of grades VII G which consisted of 30 students and VII H which consisted of 30 students, to determine students' knowledge of the material that has been taught.

This research employs a quantitative, quasi-experimental design to investigate the impact of Pictoword on students' vocabulary achievement. Two groups, experimental and control, were pre-tested to assess initial vocabulary levels. The experimental group received instruction incorporating Pictoword, focusing on its application to enhance vocabulary. The teacher provided materials, guided discussions, and facilitated question-answer sessions. Students in the experimental group used Pictoword to practice vocabulary, receiving feedback and opportunities for self-correction within the game. Post-tests were administered to both groups to compare vocabulary improvement after the intervention. The teacher assessed student performance in both pre- and post-tests using a vocabulary assessment.



With the Explanation :

E: Experimental Group C: Control Group

O1: Pre – Test O2: Post-Test

X: Treatment by using Pictoword Game

Figure 1 Research Design 1

In this matter the researcher uses the test technique in collecting data on this research. The

test is used to know is applying Pictoword game effective on students‘ vocabulary achievement. The main technique is the test technique which is in grouping the data. The pre-test and post-test have been given to both experimental class and controlled class to find out their Vocabulary achievement.

The pre-test was administered at the beginning of the research to establish a baseline for the students' existing vocabulary knowledge before any treatment was applied. This initial assessment allowed the researchers to identify specific areas of weakness and ensured that any subsequent progress could be accurately tracked. Following the pre-test, the experimental group engaged in learning sessions utilizing the Pictoword game, a visual-to-verbal puzzle challenge designed to stimulate cognitive associations between images and English terminology.

The researcher gives the students post-test by using written test. The function of the post-test is to measure the students‘ improvement in Vocabulary achievement by using Pictoword game. The researcher uses some criteria to collect the data. The collected data were the scores obtained from the score from each criteria from the class control group and the class experimental group. The scores from these criteria are used to see the Vocabulary achievement of both classes before the treatment. On the opposite hand, the scores from the post-test were used to measure whether the enforced technique affected the experimental group or not.

The test instrument consisted of 20 questions covering antonyms, synonyms, meanings, references, and abbreviations. The questions are in the form of multiple choice, the author decided to make the questions in multiple choice format because multiple choice will make it easier to determine whether students' answers are correct or incorrect.

As a method, validation involves collecting and analyzing data to assess the accuracy of an instrument. Various tests and applied statistical measures are available to assess the validity of quantitative instruments, which generally involve pilot testing. The following discussion will focus on external validity and content validity. To measure instrument validity, the author uses the Pearson Product Formula:

$$Rxy = \frac{N\sum xy - (\sum x)\,(\sum y)}{\sqrt{N\sum x^2 - (\sum x)^2 N\sum y^2 - (\sum y)^2}}$$

Note: ç $_1$ = time score result X and Y for each respondent ΣX = score of the test instrument X

ΣY = score of the test instrument Y ΣX^2 = quadratic score instrument X ΣY^2 = quadratic score instrument Y

The validity of each item r_{count} is compared with r_{table}. If $r_{count} > r_{table}$

then the test item is valid, or with the significance level = 0, 05.

In a quantitative research study, the reliability of the instrument ensures that the vocabulary test provides consistent and stable results over time. For your study at MTs Negeri 1

Sragen, the reliability is typically calculated after conducting a Try-Out test in a class outside the sample group. Below is a detailed breakdown and description of the reliability instrument formatted for an academic article. Since a vocabulary test usually consists of multiple-choice items (dichotomous scoring: 1 for correct, 0 for incorrect), the KR-20 formula is the most accurate measure of internal consistency.

The Formula:

$$r_{11} = \left(\frac{k}{k-1}\right)\left(1 - \frac{\sum pq}{S_t^2}\right)$$

- k: The number of test items.
- p: The proportion of students who passed the item.
- q: The proportion of students who failed the item $(1 - p)$.
- $\sum pq$: The sum of the product of p and q.
- S_t^2: The variance of the total scores.

In this research article, the question format is designed to bridge the raw data found in the field (MTs Negeri 1 Sragen) with existing linguistic theories. Some of the main reasons why the question format was chosen are, first, Aligning with the Problem Formulation, second, Facilitating Descriptive and Qualitative Analysis, third, Encouraging Critical Discussion, and finally, fourth, Providing a Clear Structure for Readers, specifically for the context of MTs Negeri 1 Sragen, this format is often used by researchers to highlight the characteristics of madrasah students who may have a varied background of English language abilities, so that the visual-based approach (Pictoword) needs to be tested in depth through these discussion points.

Research and Discussions

Research is a process of steps used to collect and analyze information to increase our understanding of a topic or issue (Creswell, 2012). This research investigated the effectiveness of the Pictoword game technique on the vocabulary achievement of seventh-grade students at MTs Negeri 1 Sragen. The study involved an experimental class (VII G) taught using Pictoword and a control class (VIIH) taught without it. Data on students' vocabulary was collected through pre- and post-tests and analyzed using several statistical steps.

The research conducted at MTs Negeri 1 Sragen reveals a significant positive correlation between the implementation of the Pictoword game and the vocabulary mastery of junior high school students. Initial observations and pre-test data indicated that many students struggled with word retention and engagement when using traditional rote-memorization techniques. However, following the introduction of Pictoword—a visual-verbal association game—post-test scores showed a marked improvement. This suggests that the game effectively bridges the gap between abstract linguistic concepts and concrete visual representations, allowing students to encode new terminology more deeply into their long-term memory. The cognitive effort required to "solve" the linguistic puzzle in Pictoword fosters an active learning environment, which is far more effective for vocabulary acquisition than passive reception.

Before the main analysis, two primary tests are conducted using SPSS 20 to ensure data validity. First, Normality Test**,** It Checks if the population variables are distributed normally (determined by $p \geq 0.05$). Second, Homogeneity Test, It Determines if the two groups have equal variance (determined by a significance level > 0.05).

The researcher employs an Independent T-test to compare the mean scores of the two classes. This process involves calculating the mean, standard deviation, and standard error of both variables to determine the t_o (t-observation) value. Additionally, Cohen's formulation is used to measure the Effect Size, categorizing the practical significance of the technique as small (0.2), medium (0.5), or large (0.8).

The final conclusion is drawn by comparing the calculated t_a with the t_t (t-table) at a 0.05 significance level: First, Alternative hypothesis (H_a): Accepted if $t_o > t_t$, indicating that the Pictoword game significantly improves vocabulary achievement. The second, Null hypothesis (H_o): Accepted if $t_o \leq t_t$, indicating no significant effectiveness.

Conclusion

The study investigated the effectiveness of the Pictoword game on the vocabulary attainment of seventh-grade students at MTs Negeri 1 Sragen. The experimental class, which used Pictoword, showed a significant increase in mean scores from pre-test (62.35) to post-test (86.33). Similarly, the control class, taught without Pictoword, also showed an increase from pre-test (65.60) to post-test (85.77). However, a statistical analysis (Sig. (2-tailed) = 0.023 < 0.05) indicated a significant difference favoring the experimental group. Consquently, the null hypothesis (no effectiveness) was rejected, and the alternative hypothesis (there is effectiveness) was accepted. In conclusion, the study demonstrated that the Pictoword game is significantly effective in improving the vocabulary achievement of the targeted students.

Furthermore, stated that the success of the Pictoword game at MTs Negeri 1 Sragen is rooted in its ability to lower students' affective filters. By gamifying the learning process, the classroom atmosphere became more dynamic and less intimidating, encouraging students to experiment with new words without the fear of immediate failure. The competitive yet collaborative nature of the game also spurred peer interaction, where students naturally practiced pronunciation and contextual usage while discussing potential answers. These findings align with Dual Coding Theory, which posits that the brain processes verbal and visual information through different channels, leading to better recall when both are engaged simultaneously. Ultimately, the study concludes that Pictoword is not merely an icebreaker, but a robust pedagogical tool that enhances both the motivation and the academic performance of EFL learners.

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