

## Using Riddle Game in Increasing Vocabulary of the Eighth Grade Students

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### Article Info

#### Article history:

Received 2025-11-21

Revised 2025-12-20

Accepted 2025-12-22

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#### Keywords:

Increasing  
Riddle Game  
Vocabulary

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### ABSTRACT

This study aims to examine whether the Riddle Game can increase the vocabulary of eighth-grade students at SMP Negeri 19 Palu. This research was conducted because it was discovered that students fear making mistakes and have difficulty understanding meaning, using words, and spelling them. Students feel bored when learning from textbooks and only listening to the teacher's explanations. The research used a quasi-experimental design with two groups. The population was 103 students from 4 classes at SMP Negeri 19 Palu. The sample comprised two classes: class VIII A as the experimental group and class VIII B as the control group. Vocabulary tests consisting of multiple-choice, categorization, spelling words, and sentence correction items were used as instruments for both pre-test and post-test. Data analysis used the Mann-Whitney U test to test differences between groups and the Wilcoxon Signed-Rank test to determine changes within each group. The results show that the experimental group achieved a higher post-test mean score, from (32.72) to (72.76), compared to the control group with a score from (36.42) to (47.38), with a significant difference between both groups ( $p < 0.05$ ). These findings indicate that the Riddle Game significantly increases eighth-grade students' vocabulary at SMP Negeri 19 Palu.

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## 1. INTRODUCTION

There is no language to communicate without vocabulary. That is, a language first exists as a vocabulary. Vocabulary is considered one of the most important aspects in language learning, especially English. According to Wardani [1], “vocabulary is an important aspect in language, as it appears in every language skill, including listening, speaking, reading, and writing skills.” Vocabulary is an important part of students' learning because if their vocabulary is inadequate, they will not be able to express their ideas and opinions to others. According to Richards and Renandya [2], vocabulary is a core

component of language proficiency and provides much of the basis for listening, speaking, reading, and writing well. In listening, students hear words; in speaking, they speak words; in reading, they read words; and in writing, they use words. Vocabulary mastery is the ability or competence to acquire words in language learning, making it easier for students to master the four skills in English. It is the complete mastery of some aspect of vocabulary, such as pronouns, spelling, understanding the meaning, and using words in a sentence.

Based on preliminary observations made at SMP Negeri 19 Palu, students still have a limited vocabulary. They struggle to understand meaning, use words, and spell them. They also tend to be passive during the learning process. A limited vocabulary makes them feel insecure about expressing their ideas and hinders their skill development. This statement is supported by Thornbury [3], without grammar, very little can be conveyed; without vocabulary, nothing can be conveyed." According to Shepherd [4], vocabulary is a fundamental skill for communication; people will not be able to communicate easily without knowing it. The strategy used in English instruction is monotonous, so students feel bored during both teaching and learning activities. Students need to practice a lot, and the researchers should equip them with the right teaching technique. Based on the difficulties and obstacles encountered by students in the eighth grade of SMP Negeri 19 Palu, the researchers used a Riddle game to determine whether it could improve students' vocabulary.

A riddle is a game in which something is described without actually saying what is being expressed. Riddle games require more intelligence or ingenuity to solve the riddle clues. According to Brassell & Furtado [5], "Riddle is a word game; the way to play it is solving the statement, question, phrase which has a double meaning." In addition, the Riddle Game can help students be more active during class. Riddle games need more ingenuity in the way words are formed, and riddles can motivate someone to become more interested in playing. Those statements are supported by Davis [6], "Riddle game can help the students in learning vocabulary, especially in recognizing the meaning and spelling of the word." This is also supported by the statement of Mina et al. [7], who stated that "riddle can help students to remember new vocabulary rapidly, arouse their learning enthusiasm, build self-confidence, minimize students' anxiety." By using this game, students may remember the meanings of words and know how to spell them.

This strategy will be used because the Riddle Game can help students learn vocabulary in a fun and active way. Hakim et al. [8] found that the Riddle Game can improve students' reading interest and motivation, which, in turn, can affect their vocabulary development. This is also supported by Wiwin [9], who stated that Riddle Games have a positive impact because they can convey the meaning and purpose of words through statements presented in the form of a riddle. Researchers used a Riddle game with clues. These riddles consist of a sentence and its answer, along with several clues in the form of sentences or phrases. Students were asked to match the Riddle in the sentence to the answer, then guess the words. The clues were arranged according to the meanings, usages, and spellings of the words taught in the learning material. Using clues can help students guess words correctly. In short, this study aims to determine whether the Riddle

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Game technique can increase the vocabulary of the eighth-grade students at SMP Negeri 19 Palu. This is specifically about meaning, spelling, and how students use vocabulary. This is specifically about meaning, spelling, and how students use vocabulary. The novelty of this research is that the Riddle Game not only helps increase students' vocabulary, but also trains their interest and focus in a more fun way, thereby developing vocabulary in meaning, spelling, and use. This aims to enable teachers to provide opening methods that are less monotonous and more engaging, so that students can better absorb the open material.

## 2. METHOD

In this study, a quasi-experimental design is used. This study aimed to determine the effectiveness of the Riddle Game in increasing eighth-grade students' vocabulary at SMP Negeri 19 Palu. This research comprises two groups: the experimental and the control groups. The experimental group got a pre-test, treatment, and post-test. The control group only got a pre-test and a post-test. This design is described by Cohen et al. [10] as follows:

Experimental	O1	x	O2
Control	O3		O4

Where:

- O1 : Pre-test for experimental group
- O2 : Post-test for experimental group
- O3 : Pre-test for control group
- O4 : Post-test for control group
- X : Treatment

The population consisted of four classes (VIII A, VIII B, VIII C, VIII D) with 103 students. Amin and Abunawas [11] define the population in research as all elements that consist of objects and subjects with certain characteristics. The researchers used a probability sampling technique by using a random sampling technique. Susanti [12] stated that in a probability sampling procedure, every member of the population has an equal chance (probability) of being selected as a sample. The sample consisted of two classes: Class A (experimental) and Class B (control). In collecting the data, researchers used a test as the research instrument. The test consists of a pre-test and a post-test, which were administered to the experimental and control groups. A pre-test is given before treatment to assess students' vocabulary. To find out whether the Riddle Game in the treatment was successful or not. Both the experimental and control groups were given the same questions as the pre-test, but with different topics. Researchers will compare students' pre-test and post-test scores. The following table is the scoring system for the pre-test and post-test.

Table 1. The Scoring System of pre-test and post-test

No.	Types of Test	Number of Items	Max. Score Per Item	Total Score
1.	Multiple Choice	10	1	10
2.	Categorization	10	1	10
3.	Spelling words	10	1	10
4.	Sentence Correction	10	1	10
	Total	40		40

After administering the pre-test to the experimental and control groups, the researchers used the Riddle Game to teach vocabulary for six meetings to achieve the research objective.

In analyzing the data, the researchers used a nonparametric statistical technique, the Mann-Whitney U test, to examine differences between the two groups. According to Mann and Whitney [13], the Mann-Whitney U test is used to determine whether one of the two independent variables tends to have a value that is the same or greater than the other. The Mann-Whitney U test is a nonparametric statistical test that assesses whether there are significant differences between two groups. The Mann-Whitney test is used to compare the means of two independent or unrelated groups when the data are not normally distributed or the distribution is unknown [14]. To compare the scores of the two groups, the researchers used the Wilcoxon Signed-Rank test. According to Pallant [15], a nonparametric statistical test is used to compare two sets of scores before and after treatment.

### 3. RESULTS AND DISCUSSION

#### 3.1. Results

The researchers administered a pre-test to both the experimental and control groups before the treatment. Based on data from both groups, the researchers calculated the average pre-test scores for the experimental and control groups in SPSS. Sugiyono [16] stated that statistical data processing uses SPSS to conduct tests, enabling the data output to be interpreted systematically and comprehensively.

Table 2. Descriptive Statistics: Pre-test

	N	Minimum	Maximum	Mean	Std. Deviation
Eksperiment	25	17	63	32.72	10.585
Control	26	23	62	36.42	11.176

The results in the table above show that the descriptive average score for the Experimental group (32.72), while for the Control group (36.42). Students' vocabulary must be measured before treatment is given so that their level of ability can be known [17]. These data indicate that, in general, students in the control group have a higher average score than those in the experimental group.

After the treatment, the researchers gave a post-test. After data collection, the researchers calculated the average post-test scores for the experimental and control groups in SPSS.

Table 3. Descriptive Statistics: Post-test

	N	Minimum	Maximum	Mean	Std. Deviation
Eksperiment	25	49	88	72.76	9.203
Control	26	30	76	47.38	10.024

The data in the table shows that the average score for the experimental group was (72.76), while for the control group it was (47.78). The posttest is used to determine the development of student learning outcomes after treatment [18]. This indicates that after treatment, the experimental group saw significant improvements in student comprehension and vocabulary.

To detect significant differences between the experimental and control groups, researchers used a nonparametric statistical test, namely the Mann-Whitney U test. This method is very useful for determining whether the assumption of normality in the data is violated [19].

Table 4. Mann-Whitney U test

Test Statistics	
	Nilai Siswa
Mann-Whitney U	30.500
Wilcoxon W	381.500
Z	-5.554
Asymp. Sig. (2-tailed)	.000

The Mann-Whitney U Test results show  $U = 30,500$ ,  $Z = -5,554$ , and a significance level of  $p = 0.000$  ( $<0.05$ ). This indicates a significant difference in post-test results between the experimental and control groups.

After obtaining significant comparative results in both groups, the researchers used a nonparametric statistical test, the Wilcoxon signed-rank test, to compare two sets of dependent data before and after treatment and determine whether there was a significant change.

Table 5. Wilcoxon signed rank test

	Post-Test Eksperiment - Pre-Test Eksperiment	Post-Test Control - Pre-Test Control
Z	-4.375 <sup>b</sup>	-3.459 <sup>b</sup>
Asymp. Sig. (2-tailed)	.000	.001

Wilcoxon Signed Ranks Test  
Based on negative ranks.

From the data, the Wilcoxon Signed Rank Test results for the experimental group showed  $Z = -4.375$ , with  $p = 0.000$ . In the control class, the Z value showed  $Z = -3.459$  and a significance = 0.001. Regarding the effect of role-playing on students' abilities, the test results showed a significant difference between pre- and post-test scores after the treatment [20]. In this case, there was an increase from the pre-test to the post-test. However, the p-value for both the experimental and control groups was less than 0.05, so the null hypothesis ( $H_0$ ) was rejected.

### 3.2. Discussion

This study aims to evaluate the effectiveness of the Riddle Game in increasing eighth-grade students' vocabulary at SMP Negeri 19 Palu. This has been outlined in the description of the data collected through the pre-test and post-test, as explained in the previous section, indicating that students' vocabulary has increased. This is supported by the frequency and percentage of students' pre-test and post-test results. Students' vocabulary scores after the Riddle Game presentation of material were higher than before the treatment.

Before administering the treatment, the researcher conducted a preliminary trial. Data collected in the pre-test indicated that students' understanding of nouns and vocabulary was poor. Students had difficulty understanding questions due to a lack of vocabulary and limited knowledge of nouns.

However, after treatment, students' vocabulary increased and developed, and they found it easier to understand the meanings, spellings, and uses of words in questions. This is evident in the final test results, which showed significant changes. In the experimental group, 12 students passed, while in the control group, only one student passed. This indicates that on the final test, more students in the experimental group achieved a passing grade than those in the control group.

The researcher explained that this was due to the treatment. At the beginning of using the Riddle Game, the researcher found that many students still felt insecure, shy, afraid, and reluctant to participate in the learning process. This was confirmed by the results of student practice sessions from the first to third sessions. They had difficulty understanding word meanings, spelling, and vocabulary.

However, by the fourth to sixth treatments, some students were able to correctly understand the meanings, spellings, and usages of vocabulary. Some students still struggled despite repeated prompts to understand the material and the questions. Ultimately, the researcher asked students who made mistakes to reread the learning material until their vocabulary knowledge increased. The difficulty the researcher encountered when implementing the Riddle Game was that students sometimes took the exercises less seriously, frequently wandering in and out of class, and playing more inside. However, when asked to work in groups to describe things in front of the class and have other students guess what they were talking about, the students appeared enthusiastic.

This finding is supported by Octaviarnis [21], who stated that riddle games engage students during the learning process and improve their vocabulary mastery. These games can help students grasp ideas clearly. Another finding consistent with this research is that riddle games are a good starting point for students to practice improving their vocabulary. This indicates that implementing riddle games significantly improves students' vocabulary mastery.

Another researcher also states that increasing the Riddle Game is an effective learning technique. The results of the research conducted by Rahmawati et al. [22] show that the problems faced by students, which include the students not having enough competence to use English either passively or actively because they lack vocabulary, can be

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addressed through the use of the Riddle Game in the classroom teaching and learning process.

Silviani et al. [23] concluded that the use of Riddle Games significantly improved students' vocabulary mastery. This is evident from the results of the statistical tests, which were significant ( $p < 0.001$ ).

Another previous study, namely Megi et al. [24], based on the results of their research, showed that the pre-test and post-test scores of students in the experimental class were higher than those in the control class. These results show that using Riddle Games significantly improves students' vocabulary mastery.

The last is research conducted by Ashari [25], "The Effect of Using Riddle Games on Students' Vocabulary Mastery. The researcher found a significant effect of riddle games on students' vocabulary mastery in class VII at SMP Negeri 4 Padangsimpuan.

And then, that Riddle Game was effective in increasing students' vocabulary. In this case, the researcher believes that the Riddle Game was effective in increasing students' vocabulary, especially among VIII Grade students at SMP Negeri 19 Palu.

#### **4. CONCLUSION**

The Riddle Game is effectively used to improve the vocabulary of eighth-grade students at SMP Negeri 19 Palu. This statement is supported by the data analysis, which showed that the average score of the experimental group was 72.76, higher than the average score of the control group (47.38). This shows a significant difference between the two groups.

This hypothesis confirms that the use of Riddle Games had a positive impact on this study. In this case, students in the experimental group had different learning focuses and interests than those in the control group. Students were more responsive, understanding, and remembering new vocabulary. The learning environment was more enjoyable, so students were more confident in expressing their ideas and opinions. This impacted their learning outcomes, indicating that students could understand spoken vocabulary, spell the vocabulary given, and were more confident in using it.

Teachers can implement Riddle Games in the teaching and learning process by providing materials that use vocabulary from their environment and delivering them in a relaxed, fun way to foster a positive classroom atmosphere. For future researchers, outdoor learning is recommended, with exploration of a variety of materials that focus not only on the school, home, and work environments, with the aim of broadening students' vocabulary.

#### **ACKNOWLEDGEMENTS**

The researchers would like to sincerely convey their deepest gratitude to Allah SWT for his infinite blessings and guidance throughout this study. Profound appreciation is also extended to the school principal, the English teacher, and the students of SMPN 19 Palu for their valuable cooperation and support in conducting the research and data collection.

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