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The Effectiveness of Using *Word Square* Media to Improve Students' Vocabulary at 10th Grade of Smk Wiratama 45.2 Wonosobo

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ABSTRACT

The aims of this study was to evaluate the effectiveness of using Word Square media in improving English vocabulary mastery. This study used an experimental research design with data collection techniques using tests, documentation, and hypothesis testing, with samples taken from class X TKR 2 as the experimental class and X TKR 3 as the control class. The results of this study showed that the learning outcomes of the experimental group effectively increased. In addition, from t-test, the sig.2 tailed value of 0.000 indicates that there were differences between acquiring vocabulary with and without Word Square as a medium because the significance level was below 0.05. Ha was approved where as H0 was denied. This indicated that there was a significant difference in the vocabulary knowledge of the first graders at SMK Wiratama 45.2 Wonosobo between those who were taught without and those who were taught using Word Square as media.

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ABSTRAK

Penelitian ini bertujuan untuk mengevaluasi efektivitas penggunaan media Word Square dalam meningkatkan penguasaan kosakata bahasa Inggris. Penelitian ini menggunakan desain penelitian eksperimen dengan teknik pengumpulan data menggunakan tes, dokumentasi, dan uji hipotesis, dengan sampel yang diambil dari kelas X TKR 2 sebagai kelas eksperimen dan X TKR 3 sebagai kelas kontrol. Hasil penelitian ini menunjukkan bahwa hasil belajar kelompok eksperimen mengalami peningkatan secara efektif. Selain itu, dari uji-t, nilai sig.2 tailed sebesar 0.000 menunjukkan bahwa terdapat perbedaan antara perolehan kosakata dengan dan tanpa media Word Square karena tingkat signifikansi di bawah 0.05. Ha diterima dan H0 ditolak. Hal ini menunjukkan bahwa ada perbedaan yang signifikan dalam pengetahuan kosakata siswa kelas satu di SMK Wiratama 45.2 Wonosobo antara mereka yang diajar tanpa dan yang diajar dengan menggunakan media Word Square.

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Introduction

English is an important international language for global interaction. In the era of globalization, the English language has become a cornerstone of international communication. As the most widely spoken language in the world, English serves as a bridge between cultures, facilitating interactions in various domains such as business, education, science, and technology. The global dominance of English is reflected in its role as the primary language of international diplomacy, trade, and academia. In English there is vocabulary that must be learnt to make it easy to communicate. A rich vocabulary is an important factor in understanding and using this language effectively. With simply vocabulary, students can participate in discussions, understand various texts, and express their ideas clearly. A. Wibowo (2021) argues that a rich vocabulary has a great impact on students' reading and communication skills, which ultimately supports their academic and professional success at the international level. Therefore, implementing effective teaching methods to enrich students' vocabulary is essential for optimal learning and use of English.

Vocabulary is an important aspect of students' English learning process. A good command of vocabulary not only enables students to understand and communicate more fluently, but also affects their ability to write. Vocabulary is the set of words that a person possesses and uses for listening, speaking, writing and reading. Vocabulary includes various types of words, such as nouns, verbs, adjectives and adverbs, as well as phrases and expressions. Mastery of a wide range of vocabulary is essential for effective communication and for understanding information in a variety of situations. Student need to develop the ability to independently figure out the meanings of unfamiliar words to enhance their comprehension of the material (Natalina, 2018).

Low motivation to learn is also one of the main obstacles in mastering English vocabulary. Students who lack motivation or enthusiasm in learning, especially when they do not see the direct benefits of mastering English in their daily lives or future, tend to be less enthusiastic about expanding their vocabulary. Without strong motivation, the learning process becomes overwhelming, and students may feel lazy or reluctant to put more effort into understanding and remembering new words. As a result, their vocabulary development is slow, and they miss out on opportunities to improve their overall English proficiency.

Based on observation, the interest of students of SMK Wiratama 45.2 Wonosobo in English lessons is still low, which has an impact on their vocabulary mastery. They assume that English is a difficult and uninteresting language to learn. This may be due to the teaching methods used by teachers who are often monotonous, so students lack vocabulary mastery. To overcome this, it is necessary to learn English that can stimulate students and motivate students to actively participate. In this era, there are many innovative learning media and methods for teachers to apply to students. Based on sources from Astuti et al., (2019), the selection of learning media greatly determines the quality of the student learning process. The existence of learning media will increase student interest and activeness in learning in the classroom.

Teachers are very important figures in the learning process. They are not only responsible for delivering information, but also for making the learning process more interactive. The teaching method chosen by the teacher can affect the level of student activeness. If teachers use methods that involve students actively, students will be more motivated. Conversely, if the teacher only gives a one-sided explanation, students will tend to

be bored and uninterested. Therefore, the selection and application of appropriate learning methods is very important to increase students' interest in learning, make learning more dynamic and improve learning outcomes.

One of the learning media that can be used to improve students' vocabulary in an innovative way is *Word Square* media. *Word Square* is a learning media in the form of a box or table with a set of letters arranged in rows and columns. The letters are arranged to form specific words horizontally, vertically or diagonally. *Word Squares* are often used in the classroom to expand vocabulary and subject comprehension in an engaging and interactive way. Word boxes can also be used in various word games that encourage students to be creative and participate in the learning process.

This study is grounded in several quantitative investigations demonstrating the positive impact of Word Square media on vocabulary mastery across different educational levels. Dewati (2020) found that employing the Word Square model in a ninth-grade classroom improved students' English vocabulary through observations, interviews, and tests, though using a Classroom Action Research design rather than an experiment. Similarly, Usmayani (2020) reported a significant gain—from a pre-test mean of 53.8 (SD = 13.65) to a post-test mean of 72.33 (SD = 13.18), $t(23) = 8.73$, $p < .05$—among second-year junior high students using the Word Square game. Hasibuan and Juliana (2020) observed a post-test mean of 89.07 in the experimental class versus 59.07 in the control class when applying the Word Square model, while Astiantih (2024) achieved an increase from 36% to 80% of students meeting the minimum score after two cycles of Word Square implementation. Finally, Ginting et al. (2023) noted enhanced student enjoyment and teacher teaching skills when Word Square was used at the high school level, despite differing question formats. Collectively, these studies confirm that Word Square media fosters higher vocabulary achievement and engagement.

In this study, the researcher tried to examine the effectiveness of using *Word Square* media to improve vocabulary of 10^{th} graders students at SMK Wiratama 45.2 Wonosobo. Good vocabulary mastery is one of the keys to success in learning English, but many students still experience difficulties in expanding and remembering new vocabulary. By using *Word Square*, it is expected that students can find it easier and more fun to learn vocabulary, so that their interest in learning increases and learning outcomes become better. This study was compare the results of vocabulary learning before and after the use of *Word Square* to see how far this media can have a positive impact on English learning at the school.

Based on the explanation above, finally the researcher wished to conduct research with the title "The Effectiveness of Using *Word Square* Media to Improve Students' Vocabulary at 10th Grade of SMK Wiratama 45.2 Wonosobo". The researcher chose this title because the learning method using Word Square was more effective and fun for students who still had difficulty in memorizing English vocabulary.

Methods

This study employed a quantitative approach with a quasi-experimental design, specifically the pretest-posttest control group design. The research involved two groups: an experimental class that received treatment using the *Word Square* media, and a control class that did not receive any special treatment. This design aimed to evaluate the effectiveness of *Word Square* as a learning medium to enhance students' English vocabulary mastery. Both

groups were given a pretest to assess their initial vocabulary knowledge. Afterward, the experimental group was taught using *Word Square* media over eight sessions, while the control group followed conventional teaching methods. At the end of the intervention, both groups were given a posttest to determine the learning outcomes.

Table 1. Experimental Design

Group	Pre-Test	Treatment (X)	Post-Test
EC	O1	X	O2
CC	O3	-	O4

Description :

EC : Experimental class
CC : Control class
O_1 : Pre-test for experimental class
O_2 : Post-test for experimental class
O_3 : Pre-test for control class

The study was conducted at SMK Wiratama 45.2 Wonosobo during the odd semester of the 2024/2025 academic year, specifically from September to December 2024. The population of this research comprised all tenth-grade students at the school. The sampling technique used was simple random sampling, resulting in the selection of class X TKR 2 as the experimental group and class X TKR 3 as the control group.

Data collection techniques included several methods. First, vocabulary tests were administered in the form of 20 multiple-choice questions for both the pretest and posttest to measure vocabulary mastery. Second, classroom observations were conducted to monitor the learning process and student engagement with the *Word Square* media. Third, questionnaires were distributed to the experimental group to gather students' perceptions of the media's effectiveness. Fourth, documentation in the form of photographs and student work samples was used to support and illustrate the research process. The main research instrument was a vocabulary test consisting of pretest and posttest items with comparable difficulty levels and content coverage. The instruments underwent validity and reliability testing. All test items were declared valid (r-count > r-table), and the reliability score exceeded 0.6 (Cronbach's Alpha), indicating high internal consistency.

The procedure of the study began with preliminary observations and instrument preparation. The pretest was administered to both classes, followed by the treatment using *Word Square* in the experimental class. Meanwhile, the control class received standard instruction without media intervention. After the treatment phase, a posttest was administered to both groups. Additionally, a student questionnaire was distributed in the experimental class, and documentation was collected throughout the teaching and learning process. Data analysis was conducted using SPSS version 25. The analysis included a normality test (Kolmogorov-Smirnov and Shapiro-Wilk), homogeneity test, independent sample t-test to examine the significance of differences between groups, and N-Gain analysis to assess the level of improvement in students' learning outcomes. Validity and reliability tests were also conducted to ensure the quality of the instruments. The results from these statistical procedures were used

to draw conclusions about the effectiveness of the *Word Square* media in enhancing vocabulary acquisition among tenth-grade students.

Research Findings and Discussion

Research Finding

In this part, the researcher presented the findings of the study carried out at SMK Wiratama 45.2 Wonosobo. The researcher selected two classes as subjects for the research, with class X TKR 2 functioning as the experimental class and X TKR 3 serving as the control class. This research was conducted from September to December 2024 with eight treatments.

Data Results of Students

The pre-test and post-test results were used in this research to gather information on the condition of the students. The vocabulary skills of the students were used to collect pre-test value data. To choose which class would be the experimental class and which one would be the control class, a homogeneity test was done to make sure both classes were similar and the data was normally distributed. Pre-test value data was utilized to ascertain whether or whether the control and experimental classes are homogeneous and regularly distributed tested using the normality and homogeneity tests. Post-test score Information was derived from student test results. The experimental class and the control class starting ability scores are displayed in the following table.

Table 2. Data Results of Students

No.	Experiment Class		Control Class	
	Pre-test	Post-test	Pre-Test	Post-Test
1	60	80	60	65
2	60	75	60	60
3	60	80	55	60
4	65	80	60	65
5	55	75	60	60
6	55	75	60	65
7	65	90	55	60
8	60	80	60	65
9	55	75	60	60
10	60	80	60	60
11	55	75	60	60
12	55	80	55	65
13	60	75	55	60
14	55	70	55	55
15	55	75	60	65
16	55	80	60	65
17	55	75	60	65
18	60	80	60	65
19	55	75	60	60
20	55	70	55	60
21	65	80	60	60
22	55	75	65	65
23	60	80	60	65
24	55	75	65	65

25			50	55
TOTAL	1390	1855	1470	1550
MEAN	57,9	77,3	58,8	62,0
Mnimum Score	55	70	50	55
Maximum Score	65	90	65	65

Based on the table above, as could be observed, there were 24 students in the experimental class. The pre-test average score was 57.9, and the post-test average score was 77,3. The pretest had a minimum value of 55 and a maximum value of 65. The post-test had a minimum value of 70 and a maximum value of 90. There were 25 student in the control class. The pre-test average score was 58,8 and the post-test average score was 62,0 The Pre-test then had a minimum score of 50 and a maximum value of 65. The post-test had a minimum value of 55 and a maximum value of 65.

Frequency and Percentage

Four categories Very good, Good, Enough, and Bad are used to categorize test results in order to calculate the frequency and percentage of student scores. The following are the Frequency and Percentage results in this study in the experimental class:

Table 3. Frequence and Percentage Experiment Class Score

No.	Score	Categories	Frequency		Percent	
			Pre-Test	Post Test	Pre-Test	Post-Test
1	85-100	Very good (A)	0	1	0%	2%
2	65-85	Good (B)	3	23	7%	48%
3	50-65	Enough (C)	21	0	43%	0%
4	0-50	Bad (D)	0	0	0%	0%

The frequency of Very Good results on the Pre-Test is 0. According to this, no student may receive a score between 85 and 100. There is 3 student frequency 7% of student scores in the Good category. There are 21 students with a 43% percentage in the Enough category. The percentage of student scores and the frequency of student scores are both zero in the Bad category.

According to the Post-test data, the frequency of students scoring 1 with a percentage of 2% falls into the Very Good group. With a percentage of 48%, the frequency value in the Good category is 23. The frequency and percentage of student scores in the Enough category and the Bad score categorization are both zero, indicating that no student has a score below 50 or in the 50–65 range.

The following are the Frequency and Percentage results in this study in the control class:

Table 4. Frequence and Percentage Control Class Score

No.	Score	Categories	Frequency		Percent	
			Pre-Test	Post Test	Pre-Test	Post-Test
1	85-100	Very good (A)	0	0	0%	0%
2	65-85	Good (B)	2	12	6%	24%
3	50-65	Enough (C)	23	13	44%	26%

4	0-50	Bad (D)	0	0	0%	0%

The frequency of Very Good results on the Pre-Test is 0. According to this, no student may receive a score between 85 and 100. There is 2 student with frequency 6 % of scores in the Good category. There were 23 students with a 44% percentage in the Enough category. The percentage of student scores and the frequency of student scores are both zero in the Bad category. Which means there are no students who has score in the range 50-65 and score less than 50.

According to the Post-test data, the frequency of students score 0 with a percentage of 0% in the Very Good. With a percentage of 24%, the frequency value in the Good category is 12. The frequency of student scores in the Enough category is 13 student with percentage is 26% and the Bad score categorization is zero, indicating that no student has a score below 50.

Normality Test

The purpose of the normality test is to determine whether or not the data collected in the Experimental and Control classes is normally distributed. The mean and the median are in the middle of the symmetrical normal distribution Nuryadi et al. (2017). The Kolmogorov-Smirnov approach was applied with SPSS 25 to perform the data normalcy test. The conclusion is that if Sig > 0.05 then the data is normally distributed, if Sig < 0.05 then the data is not normally distributed. The data called normally distributed if:

1. If sig > 0,05 the data was normally distributed
2. If sig < 0,05 the data was not normally distributed
3. H0 = data was normally distributed
4. H1 = data was not normally distributed

The following are the results of the normality test in this study:

Table 5. Normality test result
Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Class	Statistic	df	Sig.	Statistic	df	Sig.
Results	Pre-Test Control	.130	25	.200*	.941	25	.160
	Post-Test Control	.179	25	.038	.959	25	.386
	Pre-Test Experiment	.153	24	.150	.947	24	.229
	Post-Test Experimen	.138	24	.200*	.950	24	.267

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

Based on the data above, the data was able to said normally distributed if sig > 0,05. It can be described as follow:

a. Pre-test control class
   1) Kolmogorov Smirnov = 0,200 > 0,05 the H0 was accepted. Therefore, the data was normally distributed.
   2) Shapiro-Wilk= 0,160 > 0,05 then H0 was accepted. Therefore, the data was normally distributed.
b. Post-test control class
   1) Kolmogorov Smirnov = 0,38 > 0,05 the H0 was accepted. Therefore, the data was normally distributed.
   2) Shapiro-Wilk= 0,386 > 0,05 then H0 was accepted. Therefore, the data was normally distributed
c. Pre-test experimental class
   1) Kolmogorov Smirnov = 0,150 > 0,05 the H0 was accepted.

Therefore, the data was normally distributed.

2) Shapiro-Wilk= 0,229 > 0,05 then H0 was accepted. Therefore, the data was normally distributed

d. Post-test experimental class

1) Kolmogorov Smirnov = 0,200 > 0,05 the H0 was accepted. Therefore, the data was normally distributed.
2) Shapiro-Wilk= 0,267 > 0,05 then H0 was accepted. Therefore, the data was normally distributed

The data was able to determine that all of the data was regularly distributed based on the following rationale. As a result, the data could be used for research.

Homogeneity Test

The homogeneity test in experimental research is important to ensure that the groups being compared are 'equal' before treatment, so that the results that appear after treatment can be considered as the effect of the intervention, not due to initial differences.

The results of the homogeneity test for this study are shown below:

Table 6. Homogeneity Test Result
Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Results	Based on Mean	2.779	1	47	.102
	Based on Median	1.964	1	47	.168
	Based on Median and with adjusted df	1.964	1	37.856	.169
	Based on trimmed mean	2.679	1	47	.108

In tested data said homogeneous if the value of significance higher than 0,05 or sig, > 0,05. From the table known that:

1. Mean = 0,102 > 0,05. Therefore, the data was homogeneous
2. Median = 0,168 > 0,005. Therefore, the data was homogeneous
3. Median and with adjusted df = 0,169 >0,005. Therefore, the data was homogeneous
4. Trimmed mean = 0,108 > 0,05. Therefore, the data was homogeneous.

From the data above knew if the research data was homogeneous and was able to continue for next part.

T-Test

In experimental research, the t-test is applied to assess whether the administered treatment produces a statistically significant effect on the observed variable.

The results of the T-Test for this study are presented below:

Table 7. T-Test Result

Levene's Test for Equality of Variances	F	Sig.	t	df	Sig. (2-tailed)
Results Equal variances assumed	2.779	.102	-15.793	47	.000
Equal variances not assumed			-15.676	40.574	.000

According to the above table, the sig.2 tailed value of 0.000 indicates that there were differences between acquiring vocabulary with and without *Word Square* as a medium because the significance level was below 0.05. Ha was approved where as H0 was denied. This indicated that there was a significant difference in the vocabulary knowledge of the first graders at SMK

Wiratama 45.2 Wonosobo between those who were taught without and those who were taught using *Word Square* as media.

Gains Test

The N-Gain exam is a widely used technique to assess how well an intervention or learning process has improved students' learning results.This approach offers a solid framework for assessing how much a learning program has advanced students' comprehension.

The results of the Gains Test for this study are presented in the following table:

Table 8. Gains Test Result

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
NGain_Persen	49	54.26	68.42	68.9096	21.68895
NGain_Score	49	52	.68	.6891	.21689
Valid N (listwise)	49				

The normalized Gain criterion in Table 4.8 can be used to determine the category of magnitude of the rise in the N-Gain score. Table 4.9 can be used to ascertain the degree of efficacy of the intervention's implementation.

Table 9. Gains Score Category

N-Gain Score	Category
$0,70 \leq g \leq 100$	High
$0,30 \leq g < 0,70$	Medium
$0,00 < g < 0,30$	Low

Table 10. Gains Score Category

Percentage (%)	Interpretation
< 40	Ineffective
41-55	Less effective
56-75	Effective enough
>76	Effective

According to the table's n gain score, the average score is 0.689, with 0.68 being between 0.30 and 0.70. This indicates that *Word Square* media was medium enough at improving vocabulary in English.

Validity and Reability Test

Validity test is commonly used to measure the extent to which the accuracy and precision of a measuring instrument in performing its size function. I. Ghozali (2009) states that the validity test is used to measure the validity or validity of a questionnaire.

The results of the Validity and Reability Test for this study are presented in the following table:

Table 11. Validity Test Result

Variable	Question code	Statistic Value		Criteria
		r-count	r table	
Number	Question 1	0,826	0,2876	Valid
	Question 2	0,933	0,2876	Valid

of Question	Question 3	0,892	0,2876	Valid
	Question 4	0,933	0,2876	Valid
	Question 5	0,946	0,2876	Valid
	Question 6	0,880	0,2876	Valid
	Question 7	0,863	0,2876	Valid
	Question 8	0,899	0,2876	Valid
	Question 9	0,930	0,2876	Valid
	Question 10	0,929	0,2876	Valid
	Question 11	0,906	0,2876	Valid
	Question 12	0,865	0,2876	Valid
	Question 13	0,892	0,2876	Valid
	Question 14	0,928	0,2876	Valid
	Question 15	0,933	0,2876	Valid
	Question 16	0,952	0,2876	Valid
	Question 17	0,941	0,2876	Valid
	Question 18	0,959	0,2876	Valid
	Question 19	0,927	0,2876	Valid
	Question 20	0,923	0,2876	Valid

As can be shown from the preceding table, most of the indicators and question items that comprise each aspect have R count > R table (or GIS value < alpha), indicating that the variable has generally been legitimate and deserving of use in further research.

Cronbach Alpha statistics are used to test the instrument's reliability. Sujarweni (2014)states that if the Cronbach Alpha score is greater than 0.6, the questionnaire is considered reliable and acceptable. The outcomes of reliability testing for the three components of this study are as follows:

Table 12. Reliable Test Result

Aspect	Total item	Cronbach Alpha	Score	Criteria
Question	20	0,960	0,6	Higher reliability

Tabel shows the results of reliability tests on research instruments. It can be seen that each aspect has a Cronbach's alpha value > standard value (0,6). With this it can be said that each item of the question/indicator is said to have high reliability and is worthy of use in further analysis.

Discussion

Based on the data analysis results, a pre-test was given to the research at the start of the investigation. Pre-tests for the experimental and control classes were implemented. According to the experimental and control classes pretest data, a large number of students scored badly on the test. The average score in the experimental class was 57,9 in pre-test the lowest was 55, the highest was 65 and average score for a post-test was 77,3% lowest 70, the highest was 90. The average score in the control class was 58,8 in pre-test the lowest was 50, the highest was 65 and average score for a post-test was 62 % lowest 55, the highest was 65.

Following the pre-test, the researcher gave treatment to both the experimental and control groups of students. The researcher used *Word Square* as a teaching tool to help the experimental class master vocabulary. Additionally, the control group was taught vocabulary competence by the researcher without the assistance of *Word Square*. The first graders at SMK

Wiratama 45.2 Wonosobo received a variety of treatments to learn how *Word Square* as media could help improve their vocabulary mastery.

After conducting the research, the result of the test showed the impact of applying *Word Square*. Normality Pre-test control class, Kolmogorov Smirnov = 0,200 > 0,05. Shapiro- Wilk= 0,160 > 0,05 the H0 was accepted. Therefore, both data are distributed normally. For the Post-test control class, Kolmogorov Smirrnov = 0,38 > 0,05 the H0 was accepted. Shapiro-Wilk= 0,386 > 0,05 then H0 was accepted. Therefore, both data are distributed normally. Pre-test experimental class, Kolmogorov Smirnov = 0,150 > 0,05 the H0 was accepted. Shapiro Wilk= 0,229 > 0,05 then H0 was accepted. Therefore, both data are distributed normally. For the Post-test experimental class, Kolmogorov Smirnov = 0,200 > 0,05 the H0 was accepted. Shapiro-Wilk= 0,267 > 0,05 then H0 was accepted. Therefore, both data are distributed normally.

The mean of homogeneity was 0,102 > 0,05. As a result, the data was homogeneous. 0,168 > 0,005 was the median. As a result, the data was homogeneous. 0,169 > 0,05 is median and with adjusted. As a result, the data was homogeneous. Trimed Mean = 0,108 > 0,05. As a result, the data was homogeneous. From the data above, it was possible to determine whether the research data was homogeneous and proceed to the following section.

Because the sig.2 tailed result from the t-test was less than 0.05, it indicated that there were differences between acquiring vocabulary with and without *Word Square* as a media. Ha was approved whereas H0 was denied. This indicated that there was a significant difference in the vocabulary mastery of the first graders at SMK Wiratama 45.2 Wonosobo between those who were taught without and those who were taught using *Word Square* as media.

Using a suitable experimental design, the researcher followed the procedures outlined in Chapter III. This study includes a vocabulary exam in the pretest phase. 24 students in the experimental class and 25 students in the control class took the pretest prior to treatment. In order to assess vocabulary competence, *Word Square* media was used with the experimental class, while the control class did not get any instruction in vocabulary mastering. The researcher offered post-test following the treatment. Students' abilities were assessed using this test following treatment.

The researcher also distributed a questionnaire consisting of 10 statements to grade 10th students to evaluate the effectiveness of the media in improving their vocabulary acquisition. Prior to the completion, the researcher explained the purpose and procedure of filling out the questionnaire to ensure students' understanding of the instrument used.

The results of the questionnaire analysis showed that most students gave positive responses to the use of *Word Square* media. Most students stated that this media helped them to remember and understand new vocabulary more easily. This is in line with constructivist learning theory which emphasises the importance of students' active involvement in the learning process to build deeper understanding.

According to the research results, students vocabulary mastery before and after treatment differed significantly. The conclusion is that 10th grade students at SMK Wiratama 45.2 can benefit from using *Word Square* to expand their vocabulary, since it has been shown to be a useful instrument for vocabulary mastery.

Conlusion

Based on the findings of this study, the use of Word Square media has proven to be effective in improving vocabulary mastery among tenth-grade students at SMK Wiratama 45.2 Wonosobo. The experimental group showed a significant increase in post-test scores, with a t-test result (sig. 2-tailed = 0.000) indicating a meaningful difference compared to the control group. This confirms that students taught with Word Square performed better in vocabulary acquisition than those taught using conventional methods. Furthermore, the use of Word Square positively influenced students' motivation and participation during the learning process.

Students appeared more engaged, enthusiastic, and eager to take part in class activities. Many previously passive learners became more confident in answering questions and expressing their thoughts, which contributed to a more lively and student-centered classroom environment. In conclusion, Word Square is not only effective for enhancing vocabulary skills, but it also supports active learning and fosters positive behavioral changes. Its game-like format makes vocabulary learning more enjoyable and interactive, which helps sustain student interest and improves overall classroom dynamics. Therefore, it is a recommended strategy for English language teaching at the high school level.

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