

**THE EFFECT FOUR SQUARE STRATEGY TOWARD STUDENTS
VOCABULARY MASTERY AT SEVENTH GRADE IN SMPN 02 KOTO BARU
DHARMASRAYA**

Salsa Arsidilla¹, Elsi Amiza²

Universitas Islam Negeri Sjech M. Djamil Djambek Bukittinggi, Indonesia

Email :

Salsadilla1321828@gmail.com

elsiamiza@uinbukittinngi.ac.id

ABSTRACT

This research the researcher found that Some of the problems were: students find it difficult to memorize new vocabulary, the students preferred to use Indonesian language during the teaching and learning process than English in general the students had difficulty to understand learning English. This research used a quasi-experiment using non-equivalent control group design. The samples used were class VII D as experimental class consisted of 33 students and VII E as control class consisted of 33 students. The results of this research for the first hypothesis using a paired sample t-Test, it was found that $\text{Sig (2-tailed)} < 0.05$, so the hypothesis alternative (H_a) was accepted, indicating that there is a significant effect of using the four square strategy. Next, for the second hypothesis using an independent sample t-Test, it was found that $\text{Sig (2-tailed)} < 0.05$, so the hypothesis alternative (H_a) was accepted, indicating that there is a significant difference between the class that used four square strategy and the class that do not use four square strategy. And for the third hypothesis using an independent sample t-Test, it was found that $\text{Sig (2-tailed)} < 0.05$, so the hypothesis alternative (H_a) was accepted, indicating that the vocabulary mastery of students who use the four square strategy was better than that of students who do not use four square strategy. So, it can be concluded that the four square strategy had an effect on students' vocabulary mastery.

Keywords: four square strategy, vocabulary mastery

INTRODUCTION

Vocabulary is foundational Information and an essential component for learners to be able to communicate effectively in their daily lives. In this line with theory from (Fitria & Syahrul 2021). In addition, according to (Alizadeh) vocabulary is all the words that a person knows and uses all the words in the language, and list of words with their meanings. In another word, according (Wlan & Irwandi 2023) vocabulary is defined as a system of words and as a language component which has noteworthy part in language. The importance of vocabulary in learning of foreign language cannot be overstated. Learners will make significant progress if they memorize a large number of words and expressions. Even if students grammar is great, they will struggle to communicate in English if they do not have a large vocabulary.

Vocabulary mastery refers to the ability to understand, retain, and use a wide range of word effectively in communication. It is a fundamental aspects of language proficiency, impacting skills in reading, writing, listening, and speaking. A solid vocabulary foundation allows learners to comprehend texts more easily, articulate thoughts precisely, and engage in complex conversations. According to (Nation, 2001), vocabulary knowledge plays a critical role in language comprehension, as it enables learners to grasp the meaning and context of a given text or speech. Moreover, Thornbury highlights that acquiring vocabulary is an incremental process that requires exposure, repetition, and meaningful practice.

According to (Richards 2002), Vocabulary mastery refers to the number of words that someone knows. The term mastery is not limited to simply as recognizing the meaning of certain words it is defined as knowing word and also be able to recognize the meaning, form, grammar, and used them in the sentences. Porter states that mastery is learning or understanding something completely and having no difficulty in using it. Mastery is defined as the complete control of knowledge. According (Wiliam 1997), mastery is knowledge of use of subject or instrument. Mastery was derived from the word “master” which mean to become skills, to again complete knowledge through understand. In other words, vocabulary mastery is students has to know words and meaning in the sentence or when the students tell something. The students mastery of the vocabulary is based the students skills. In addition, (Elatri and Meri 2022) English Vocabulary mastery has become major issue for the majority of students, vocabulary most important material in foreign language teaching for young learners, the basic for learn English is

vocabulary. From the explanation of Vocabulary mastery, an effective and efficient strategy is needed to facilitate students in master of vocabulary. In this study researcher using four square strategy to help students for vocabulary mastery

According to (Brunner 2012), The purpose of the four square strategy is to help students understand and remember the definitions of new vocabulary words. This strategy will support students as they make personal connection to each new word. The Four Square strategy includes 10 steps: 1) Draw a square with four quadrants on transparency whiteboard. 2) Ask the students to draw a similar square on a piece of paper. 3) In the top left quadrant, write "Vocabulary word" in the top right quadrant, write "definition", in the bottom left quadrant write "personal Association" and the bottom right quadrant write "Opposite" or "Antonym". Direct students to do the same paper. 4) After students have read or skimmed the reading selection, tell them to select a word from the text that they consider important for their overall understanding of the selections. 5) Have students write the vocabulary word in the upper left quadrant under "Vocabulary Word." 6) Guide students as they develop a definition for the word. Ask them to write the definition in the top right quadrant, under "definition." 7) Ask the students consider words or phrases that are opposite of the vocabulary term, and instruct them to write the words or phrases in the bottom left quadrant under "Personal Association." 8) Tell students to consider words or phrases that are opposite of the vocabulary word, and write those word in bottom right quadrant under "opposite." 9) Provide other relevant vocabulary words or terms from the reading, and ask students to develop a Four Square for each. 10) Divide students into small groups to compare finished Four Squares.

Based on preliminary research was conducted through interview on 13 December 2024, with Mrs Febriana as the English teacher at seventh grade English teacher at SMPN 02 Koto Baru Dharma Raya, which revealed some issues. Firstly, Students find it difficult to memorize new vocabulary, because they perceive English as a difficult language and they do not a foundational background in vocabulary. Second, the students preferred to use Indonesian language during the teaching and learning process than English. They said that they find difficult to understand what teacher said when the teacher used English only.

The purpose of this study were as follows : To find out if there any significant effect of using four square strategy on students vocabulary mastery at seventh grade in SMPN 2 Koto

Baru Dharmasraya, To find out the significant difference in vocabulary mastery between students who use four square strategy and students who do not use four square strategy at seventh grade in SMPN 2 Koto Baru Dharmasraya, and To find out the students mastery of vocabulary in students who use four square strategy and students do not use four square strategy.

RESEARCH METHODS

The type of this research, the researcher use Quasi-experimental research. As a starting point, it will necessary to present a definition of experimental research. The reseacher used two classes with different treatment between the experimental and control classes. In the without this strategy. Both classes were given a pre-test and post-test. The population of this research was all of the seventh grade in SMPN 2 Koto Baru Dharmasraya in which the total number of the students 195 students and divided into 6 classes. VII D as experimental class consisted of 33 students and VIIE as control class consisted of 33 students. Instruments of this reserch is test, the test was in the form written test which consisted 25 multiple choice question made by the reseacher. There are two types oft test in used in this study: pre-test and post-test. To analyze the data, the reseacher used normality and homogeneity test. Meanwhile, to test the hypothesis, the reseacher used paired sample t-Test and paired sample t-Test.

FINDINGS AND DISCUSSION

Findings

1. The Description of the Data

a. Data Fron the Pre-test and Post-test of Experimental Class

The Scores of Pre-test and Post-test Experimental Class

Students	Pre-test	Post-test	Gained scores
ARS	40	76	36
AS	52	80	28
AFN	68	92	24
ADP	40	80	40
AS	44	72	28

ADS	52	88	36
BAC	60	76	16
CA	52	80	28
DE	64	84	20
DTA	76	96	20
FH	60	72	12
HI	52	76	24
J	56	88	32
KJV	72	84	12
KPR	60	68	8
MF	44	84	40
MG	60	84	24
MA	56	80	24
MF	64	68	4
MV	60	76	16
NL	64	68	4
NM	52	72	20
NN	60	80	20
P	52	68	16
PP	44	88	44
RS	76	84	8
RSA	40	80	40
SN	64	72	8
SA	48	76	28
ZPR	64	84	20

ZE	60	84	24
ZA	40	72	32
ZE	72	76	4

The Result of Pre- Test and Post-Test Scores of Experimental Class

	Min	Max	Mean	Median	Standard deviation	Variane
Pre-Test	40	76	60,31	60,00	10,446	109,121
Post-test	68	96	79,03	80,00	7,213	52,030

Based on the calculation from the data that reseacher got from pre-test and post-test, it is clarified that the highest scores of the experimental class in pre-test is 76, while the lowest score is 40, the mean of the class was 60,31, the median was 60,00, the standard deviation wa 10,446, and variance was 109,121 . In the post test, the highest score of the experimental class was 96, the lowest score was 68, the mean of the class was 79,03, the median was 80,00, the standard deviation was 7,213, and variance was 52,030.

b. Data Fron the Pre-test and Post-test of Experimental Class

The Scores of Pre-Test and Post-test of Control Class

Students	Pre-test	Post-test	Gained scores
AR	40	64	24
ADP	56	80	24

AF	64	84	20
A	52	68	16
BA	52	72	20
CS	72	76	4
D	64	80	16
DH	64	76	12
EA	60	80	20
FA	48	68	20
FN	56	84	28
FYP	40	76	36
FRP	52	80	28
FMW	44	60	16
GZ	76	88	12
IH	64	76	12
IW	60	72	12
I	62	80	18
JAP	68	72	4
KSA	52	68	16
K	44	72	28
LQ	48	60	12
LS	60	84	24
MAP	52	76	24
MS	56	60	4
NA	64	72	8
PA	72	80	8

RN	56	60	4
RF	56	76	20
R	72	92	20
WJ	68	80	12
YO	52	76	24
ZS	64	68	4

The Result of Pre-Test and Post-Test Scores of Control Class

	Min	Max	Mean	Median	Standard deviation	Variance
Pre- Test	40	76	57,88	56,00	9,407	88,485
Post- Test	60	92	77,44	76,00	8,174	66,818

Based on the calculation from the data that reseacher got from pre-test and post-test, it is clarified that the highest scores of the control class in pre-test is 76, while the lowest score is 40, the mean of the class was 57,88, the median was 56,00 , the standard deviation was 9,407, and variance was 88,485. In the post test, the highest score of the control class was 92, the lowest score was 60, the mean of the class was 77,44, the median was 76,,00 , the standard deviation was 8, 174 and variance was 66,818.

It can be concluded from the table above that scores of students in the experimental class are higher than those in the control class.

2. The Analysis of The Data

1) Data Normality Test

a. Normality test of Pre-test Score of Experimental and Control Class

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Class	Statistic	df	Sig.	Statistic	df	Sig.
Vocabulary Test	Pre-test Experimental Class	,143	33	,087	,956	33	,194
	Pre-test Control Class	,122	33	,200 [*]	,977	33	,706

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

It could be seen that the significance of normality pre-test score in experimental class was $0.087 > 0.05$. Meanwhile, the significance of normality pre-test score in control class was $0.200 > 0.05$, it could be concluded that the data of pre-test in experimental and control class were normally distributed.

b. Normality test of Post -test Score of Experimental and Control Class

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Class	Statistic	df	Sig.	Statistic	df	Sig.
Vocabulary Test	Post-test Experimental Class	,144	33	,081	,950	33	,133
	Post-test Control Class	,146	33	,070	,954	33	,174

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

It could be seen that the significance of normality post-test and pre-test score in experimental class was $0.151 > 0,05$. Meanwhile, the significance of normality post-test score in control class was $0.200 > 0.05$. So, It could be concluded that the data of post-test in experimental and control class are normally distributed.

2) Data Homogeneity Test

a. Homogeneity Test of The Pre-test Score of Experiment and Control Class

Test of Homogeneity of Variances

		Levene			
		Statistic	df1	df2	Sig.
.	Based on Mean	,385	1	64	,537
	Based on Median	,263	1	64	,610
	Based on Median and with adjusted df	,263	1	61,487	,610
	Based on trimmed mean	,338	1	64	,536

From table, it was found that the significance value (sig) based on mean $0.537 > 0.05$, it can be concluded that the variant of pre-test of experimental class and control class in the same and homogenous.

b. Homogeneity Test of The Post-test Score of Experiment and Control Class

Test of Homogeneity of Variance

		Levene			
		Statistic	df1	df2	Sig.
Vocabulary Test	Based on Mean	,069	1	64	,793
	Based on Median	,011	1	64	,918
	Based on Median and with adjusted df	,011	1	60,447	,918
	Based on trimmed mean	,063	1	64	,803

From table, it was found the significance value (sig) based on mean is 0.793 > 0.05, it can be concluded that the variant of the post –test of experimental class and control class is the same or homogenous.

3. Test of Data Hypothesis

a. The First Hypothesis

Paired Samples Test

		Paired Differences						
		Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				Sig. (2-tailed)
Mean		n		Lower	Upper	t	df	
Pair 1	Pre-Test - Post-Test	- 11,3110	1,96 90	- 18,41353	26,434 96	- 11,389	32	,000

From the table, it can be seen that the sig (2-tailed) in the first hypothesis test was 0.000 < 0.05, which showed that there was a significant effect of four square strategy

is students vocabulary mastery in the experimental class, from the data, it can be concluded that H_0 is rejected and H_a is accepted.

b. The Second Hypothesis

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Post-test	Equal variances assumed	,322	,572	2,363	64	,021	4,48485	2,01862	,69365	8,27605
	Equal variances not assumed			3,513	62,405	,021	4,48485	2,01862	,69252	8,27718

From the table, it can be seen that the sig (2-tailed) in the second hypothesis test was $0.021 < 0.05$, which showed that there was a significant different between the class used the four square strategy and the class did not use the four square strategy towards students vocabulary mastery, from the data, it can be concluded that H_0 is rejected and H_a is accepted.

c. The Third Hypothesis

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Post-test	Equal variances assumed	,322	,572	2,363	64	,021	4,48485	1,89775	,69365	8,27605
	Equal variances not assumed			2,363	63,024	,021	4,48485	1,89775	,69252	8,27718

From the table, it can be seen that the sig (2-tailed) in the third hypothesis test was $0.021 < 0.05$, which showed that there was a significant different between the class used the four square strategy and the class did not use the four square strategy towards students vocabulary mastery, from the data, it can be concluded that H_0 is rejected and H_a is accepted.

Discussion

Based on the results of the hypothesis , the reseacher found that the use of four square strategy had a significant effect on students vocabulary mastery. This could be seen from the average score in the experimental class was higher than the average pre-test score.

This findings in line with theories from several expert related the use of four square strategy towards students vocabulary mastery. According to According to (Brunner 2012), The purpose of the four square strategy is to help students understand and remember the definitions

of new vocabulary words. This strategy will support students as they make personal connection to each new word. Furthermore (Nita and aprilia, 2014), The four square is one of the strategies that is used to teach vocabulary, writting and reading skills. In this strategy, the students are given a piece of paper with four square and there is a new vocaulary word in the center. Based on the theory above, it can be concluded that the results of this research is to towards the students vocabulary mastery with the use four square strategy.

This findings is in line with several previous studies. First, wit the title “The effect of the four square strategy on students vocabulary mastery (a Quasi- Expermental research at the eight grade students of MTs. Hasyim Asy’ari Bangsri in the academic year 2018/2019)” conducted by (Nita Nurul Hidayah, 2019). The result of the study showed that has a significant different between students who were taught by using the four square strategy in students vocabulary mastery than who were not taught using the four square strategy. Second, with the ttittle “The Effect of Using The Four Square Strategy to Enhance Studets Vocabulary Retenion 2018” conducted by (Ismi Narulita Firda, 2018). The result of this study showed that the four square strategy gave strong effect on students vocabulary retention.

In conclusion, the results of this research support the theory that use of the four square strategy can improve students vocabulayr mastery. This can be seen from the post test score in the experimental class, which were higher than the pre-test scores in the same class. Additionally, the difference in the post-test scores between the experimental class and the control class shows that the average post-test score of th experimental class was higher than the average pot-test score of the control class.

CONCLUSION

Based on the results of the findings and discussion, it can be concluded that : First, There is a significant effect of using the four square strategy toward students vocabulary mastery. It can be seen by the data from the result of the paired sample t-test, namely the Sig (2-tailed) data of $0.000 < 0.05$. It means that H_0 was rejected and H_a was accepted. Second, There is a significant difference between the class that uses the four square strategy and the class that does not use the four square strategy toward students vocabulary mastery. It can be seen by the data from the result of the independent sample t-test, namely the Sig (2-tailed) data of $0.021 < 0.05$. it means that H_0 was rejected and H_a was accepted. Third, The vocabulary mastery of students who use the four square strategy is better than students who do not use the four square strategy. It can be seen by the data from the result of the independent sample t-test, namely the Sig (2-tailed) data $0.021 < 0.05$. it means that H_0 was rejected and H_a was accepted.

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