



## The Effect of Mnemonic Technique Toward Students' Vocabulary Mastery at 8<sup>th</sup> Grade of MTsM Lawang Tigo Balai

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### Abstrak

Penelitian ini bertujuan untuk menemukan pengaruh penggunaan teknik Mnemonic terhadap penguasaan kosakata siswa kelas 8. Penelitian ini dilakukan di MTs Muhammadiyah Lawang Tigo Balai. Terdapat beberapa permasalahan yang ditemukan oleh penulis, diantaranya pertama, siswa sulit untuk mengingat makna dari kata-kata. Kedua, siswa sulit mengeja kata dan mereka tidak tahu bagaimana pengucapannya. Ketiga, siswa hanya mengingat kata tersebut saat berada didalam kelas, tapi setelah itu kadang-kadang mereka lupa apa yangtelah mereka pelajari. Tujuan dari penelitian ini adalah untuk mengetahui apakah ada pengaruh yang signifikan dalam penggunaan teknik Mnemonic terhadap penguasaan kosakata pada siswa kelas 8 MTs Muhammadiyah Lawang Tigo Balai. Hasil dari penelitian ini adalah terdapat pengaruh yang signifikan dalam penggunaan teknik Mnemonic terhadap penguasaan kosa kata siswa serta terdapat perbedaan yang signifikan dalam penguasaan kosa kata siswa antara siswa yang diajar menggunakan teknik mnemonic dan siswa yang tidak diajar menggunakan teknik mnemonic.

**Kata Kunci:** *Teknik Mnemonic, Penguasaan kosa kata.*

### Abstract

This research aims to find the effect of using Mnemonic techniques on grade 8 students' vocabulary mastery. This research was conducted at MTs Muhammadiyah Lawang Tigo Balai. There are several problems found by the author, including; First, students find it difficult to remember the meaning of words. Second, students have difficulty spelling words and they don't know how to pronounce them. Third, students only remember the words while in class, but after that sometimes they forget what they have learned. The purpose of this research is to find out whether there is a significant influence in the use of Mnemonic techniques on vocabulary mastery in grade 8 students at MTs Muhammadiyah Lawang Tigo Balai. The results of this research are that there is a significant influence in the use of Mnemonic techniques on students' vocabulary mastery and there are differences which is significant in students' vocabulary mastery between students who are taught using mnemonic techniques and students who are not taught using mnemonic techniques.

**Keywords:** *Mnemonic Technique, Vocabulary Mastery.*

### INTRODUCTION

In learning English language, vocabulary becomes the first component that should be acquired by the students in doing interaction either orally or written form. Vocabulary is a collection of words usually alphabetically arranged and explained or defined. Vocabulary is a basic to arrange sentences, paragraph, easy and text.

Vocabulary is very important to learn in English, it can be used in doing communication both spoken and written. Furthermore, vocabulary can be measurement of the students' quality and capability to communicate the meaningful information to others and support the students to comprehend the language well (Farrokh et al., 2021). It implies that learning vocabulary is a key component of learning English. Furthermore, it will be challenging for those with low vocabulary knowledge to communicate and express their thoughts.

To master vocabulary students must know types of vocabulary and how to use them. The knowledge of knowing vocabulary types is very important to be well understood in order to facilitate the students in recognizing those words. According to Harefa and Sarumaha, a person's productive vocabulary is their collection of words that they can employ when speaking or writing. They are well-known, common, and commonly used words. Productive vocabulary is a type of vocabulary that requires speakers or writers to convey their own vocabulary choices in accordance with the message they want to convey to others (Sarumaha et al., 2022). Vocabulary development is a key educational goal for instructors in middle grades schools across all subject areas. The pupils should be aware of and take into account the fact that each student's characteristic and aptitude are unique. Sometimes pupils are strong at remembering things, whereas other kids struggle with memory. Therefore, the teacher must come up with the best way to enable all students to memorise the terminology they need to master. The reading of a book will be simpler for the children who have a large vocabulary. Students can practise and utilise language more simply with the aid of vocabulary. Without a large vocabulary, learners will find it difficult to comprehend the English language or to communicate.

Based on preliminary research at the second grade at MTsM Lawang Tigo Balai on January 26th 2023, researcher interviews with English teacher and some students and researcher found some problems of the students in learning English. The first problem was that some of students were difficult to memorize the meaning of the words. The second was the students were difficult to spell the word and they did not know how to pronounce the words. The last problems they are just memorize the word if in the classroom, but after that they are sometimes forgot what they have learned before. Thus, the researcher also interviews the English teacher, teacher said that students still lack of vocabulary mastery and students always ask to teacher what are they did not know the meaning of vocabulary.

According to the aforementioned statement, there are a variety of strategies and techniques that can be used to increase students' vocabulary proficiency during the teaching and learning process. Mnemonic techniques are one of them. The word "mnemonic" itself is Greek and refers to Mnemosyne, the ancient Greek memory goddess (Ningrum et al., 2020). Atkinson introduced the Mnemonic Technique or Keyword Method to vocabulary teaching when he suggested it as an additional method for studying vocabulary in foreign languages. He reported that it is superior to the rote rehearsal technique for vocabulary and adamantly asserts that this method is very helpful for learning both foreign and native languages (Atkinson & Shiffrin, n.d.). Amir Yousefi's study on mnemonic training, Memory Has a Key Effect on Future Vocabulary and Grammar Achievement, supports it (Amiryousefi &

Ketabi, 2011). It can be inferred that the mnemonic approach is a method for improving vocabulary through memorization of the words.

Students can remember knowledge more quickly and readily by using mnemonics. The most effective application of this method is learning English vocabulary. Students can learn the terminology more quickly and enjoyably. The use of mnemonic devices can help pupils retain more of what they have studied while also enhancing their language skills. Mnemonics can inspire pupils, making the teaching environment more engaging. For those reasons, the researcher used the mnemonic technique.

## **METHOD**

Based on the aforementioned issues, the researcher will conduct an experiment investigation to determine the impact of using mnemonic devices on students' vocabulary mastery. Experimental research is to ascertain whether the subject under study experiences any effects as a result of the intervention. Gay claims that the only study methodology that can effectively evaluate the cause-and-effect theory is experimental research. The manipulation of an independent variable is the main feature that sets experimental research apart from other types of study (Brier & lia dwi jayanti, 2020).

The treatment or characteristic thought to produce a difference is known as the independent variable, also known as the treatment, causative, or experimental variable. According to Arikunto, the goal of experimental study is to determine whether or not the treatment that will be administered to the subject has any causal effects. The experiment was conducted by the researcher in order to determine the impact of the pre- and post-test results on the experiment class compared to the control class. Pre-testing, treatment, and post-testing are the steps taken in the data collection process for experimental research (Tarbiyah, 2020).

The researcher uses quasi-experimental in this experimental study. According to Creswell, the quasi-experimental design was chosen since it includes assignment but not random grouping of participants. Quasi-experimental method has three basic characteristics Was given to know the students' achievements of treatments (Ani & Sinaga, 2021).

The population is the whole object that will be researched. Population is the important element of the research. The populations of this research are the eighth grade students of MTsM Lawang Tigo Balai. There were 64 students from 2 classes (Tarbiyah, 2020).

Sample is a more condensed form of population. This indicates that the sample is a portion of the population chosen as the experiment's target population. The researcher required an experimental class and a control class based on the research problem and research design that were previously described. The researcher used as technique called total sampling which was a technique of selecting a sample when all members of the population were used as samples (Brier & lia dwi jayanti, 2020).

Total sampling is a sampling technique where the sample is equal to the population. The reason to taking total sampling because if the total population is

less than 100 then the all of population is considered a sample. The researcher used both the 8.1 and 8.2 in this study. To determine whether the data distributes normally or not, the data's normality must be tested.

The study's goal was to determine the pupils' vocabulary proficiency. It indicates that the students hoped to become proficient in vocabulary. Before starting treatment, a pre-test is provided to children to gauge their vocabulary proficiency. Based on the method employed during the teaching and learning process following the therapy, a post-test is administered to determine the students' vocabulary knowledge.

To determine the impact of the Mnemonic approach on students' vocabulary mastery, the researcher used a vocabulary accomplishment exam that she had already prepared. In this study, the test was created with consideration for its validity and reliability. According to Arikunto, the test's primary requirements are reliability and validity. Reliability is quantified, typically as a coefficient.

A good test should be very variable and reliable. It indicates that the test is highly reliable. Students in the experimental class were taught using mnemonics, whereas those in the control class received traditional or no instruction. Experimental class activity teacher introduced mnemonic technique and how to use it. According to Baken, when developing a mnemonic, you should follow the 3 R's: there ara ; Fisrt, Creating: You must first come up with a keyword. A keyword is a term that the pupils are already familiar with, that can easily be turned into a picture or that sounds similar to the word that needs to be learn. Second, make a visual representation of the keyword interacting with the definitiom. Third, Retrieve: Lastly, the teacher should demonstrate the processes that a student must take in order to successfully recall and retain a new vocabulary term and its meaning.

The technique that researchers utilise for data collection is testing. The test is used to get first-hand information. The pupils were required to respond to a few questions on the texts or pictures that the teacher had provided in order to assess their vocabulary competence. Pre-test and post-test vocabulary tests were utilised to gauge pupils' vocabulary competence as well as to gather data.

The researcher utilises the t-test to analyse the data since there are experimental classes and control classes in a study, according to Arikunto. In order to determine the final calculation of using mnemonic technique towards students' vocabulary mastery, the researcher will use statistical analysis of the t-test when analysing data to determine how the effect of using mnemonic technique towards students' vocabulary mastery. According to Arikunto, when conducting research, there are experimental and control groups. T-tests are used by the researcher to analyse the data (Tarbiyah, 2020).

Finally, the value of the t-test obtained will be compared to the value of the t-test in the table at the level of significance  $=0.05$  to determine whether it revealed a significant difference between the mean scores of the two groups. The condition is the descriptive hypothesis ( $H_a$ ) will be accepted if  $-t_{\alpha} > t_{hit} > t_{1/2 \alpha}$ .

## **RESULTS AND DISCUSSION**

## Description of the Data

The analysis of the data gathered to address the study questions was explained in this chapter as The findings are divided into three sections: a summary of the data, an analysis of the data, and a hypothesis test. The results were designed to clarify whether adopting a mnemonic as a technique has any discernible effects on students' vocabulary mastery. Additionally, they were examined in order to see whether or not there were any discernible changes in the students' vocabulary competence between those who received mnemonic instruction and those who did not. to determine whether or not students who get instruction utilising mnemonics have superior vocabulary mastery than those who do not receive such instruction.

After administering the pre test at the start of the research and the post test at the conclusion of the research on both the experiment and control classes, the scores of the students' vocabulary mastery were gathered as the data for this study. The statistical formula was used to analyse the pre-test and post-test data and determine the mean score of the pre-test and post-test for the experiment class and control class, the standard deviation, and the mean difference of the two classes.

Below is a description of the data for both the experiment class and the control class.

### Experiment class

Table 1: Pre-test Score of Experimental Class

No	Score	Frequen
1	45	2
2	50	2
3	55	2
4	60	7
5	65	7
6	70	6
7	75	5
8	80	1
		32
Mean		64.96
Standard Deviation		8.930
Variant		79.738
Max		80
Min		45

### Experiment class

Table 2: Pre-test Score of Control Class

No.	Score	Frequency
1.	45	1
2.	50	2
3.	55	4
4.	60	6
5.	65	8

6.	70	6
6.	75	5
		32
Mean		63.75
Standard Deviation		8.032
Variant		64.516
Max		75
Min		45

Prior to providing the treatment in the first meeting, a pre-test was used to assess the students' ability. Before the experimental class used the Mnemonic technique and the control class used the traditional technique, a pre-test was used to gauge the students' vocabulary proficiency. The use of SPSS 25 to compute the mean, standard deviation, variation, maximum, and minimum score for the experiment class's pre-test.

The table below displays the experiment class' post-test results:

### Experiment class

Table 3: Post-test Score of Experiment Class

No.	Score	Frequency
1.	75	4
2.	80	7
3.	85	9
4.	90	7
5.	95	5
		32
Mean		85.31
Standard Deviation		6.342
Variant		40.222
Max		95
Min		75

The data reveals that the experiment class's lowest post-test score was 75, its highest was 95, its variation was, its standard deviation was 6.342, and its mean score was 85.31. The average, standard deviation, variance, maximum score, and minimum score are calculated.

### Control class

The post-test result of control class was shown by the table below:

Table 4: Post-test Score of Control Class

No.	Score	Frequency
1.	50	3
2.	55	5
3.	60	4

4.	65	6
5.	70	8
6.	75	3
7.	80	3
		32
Mean		65.00
Standard Deviation		8.890
Variant		79.032
Max		80
Min		50

The data reveals that the control class's post-test scores ranged from 50 to 80, with a mean of 65 and a standard deviation of 8.890. The lowest score the control class achieved was 50. determining the average, standard deviation, variance, maximum, and minimum.

### The Normality and Homogeneity Test

#### a. The Normality Test

The goal of the data normality test was to demonstrate that the sample's data originated from a population with a normally distributed population. Using SPSS 25, the data's distribution was determined to be normal for determining the data's normality. The data can be seen in the tabel below.

Table 5. The result from test normality data of Pre-Test Experiment Class and Control Class

Class	Kolmogoro v-Smirnova			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Pre-Test EC	.137	32	.132	.947	32	.120
Pre-Test C	.156	32	.047	.940	32	.076

The results of the normality data pre- test showed that the sample was normally distributed in the experiment class and the control class since the values of sig were higher than 0.05 (0.132 and 0.47 respectively) and higher than 0.05. It indicates that the pre-test in the experiment class and the control class passed the normalcy test.

Table 6. The result from test normality data of Post-Test Experiment Class and Control Class

Class	Kolmogoro
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	Class	v-Smirnova			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Result	Post-TestEC	.145	32	.085	.916	32	.016
	Post-TestCC	.151	32	.063	.943	32	.089

When the value of sig was higher than 0.05, it was 0.085 and 0.063, respectively, the normality data post-test in the experiment class and control class came to the conclusion that the sample was distributed normally. It indicates that the pre-test in the experiment class and the control class passed the normalcy test.

**b. The Homogeneity Test**

After examining the data's normality, the researcher used SPSS 25 to examine their homogeneity. The table below shows the results of the computation for the homogeneity of the pretest and posttest in the control and experiment classes:

Table 7. The result test of homogeneity data of Pre-Test experiment and control class  
Test of Homogeneity of Variances  
NILAI

Levene Statistic	df1	df2	Sig.
3.622	1	62	.651

Table 8. The result test of homogeneity data of Post-Test experiment and control class  
Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
3.807	1	62	.062

From the data above, it was found the data pretest in experimental class and control class the sample was homogeneous because the value of sig based on mean > alpha, it was higher than alpha=0.05, it was 0.651. And then, the data posttest in experimental class and control class the sample was homogeneous because the value of sig based on mean > alpha, it was higher than alpha=0.05, it was 0.062. it can be stated that the data of both class were categorized homogeneous at the level 0.05.

**c. Finding**

The results of calculating the pre-test and post-test in the experiment class and control class, as well as testing the hypothesis, are included in this study's findings. The mean/average value (X) post-test result in the experiment class was higher than the mean/average value (X) post-test result in the control class. It implies that the researcher's treatment, which included the Mnemonic Technique, could increase pupils' grasp of vocabulary.



### The first hypothesis

Ha : There is significant effect of using Mnemonic technique toward students' vocabulary mastery.

H0 : There is no significant effect of using Mnemonic technique toward students' vocabulary mastery.

By using this counting SPSS 25 for windows, the hypothesis Ha was accepted if the significance of pretest and posttest  $< 0.05$  and was refused if it was  $> 0.05$ . The result of SPSS process was showed on the table below.

Table 9: The Independent Sample T-Test

Independent Sample Test				
t-tet for Equality of Means				
		Sig.(2	Mean	Std.
		-tailed	Difference	Error
		)	nce	Difference
Result	Equal variances assumed	.000	-21.250	1.936

### Second Hypothesis

Ha : There is significant differences of using Mnemonic technique toward students' vocabulary mastery.

H0 : There is no significant differences of using Mnemonic technique toward students' vocabulary mastery.

The researcher uses the Paired Samplet-test which is calculated with SPSS 25 to find out whether Ha or H0 is accepted or rejected through a comparison of the pretest and posttest of the experimental class and the control class. sig. value (2-tailed) compare with 0.05. if sig. (2-tailed) in pairs 1 and 2 is the lowest of 0.05, so the alternative hypothesis (Ha) is accepted. However, if the sig.(2-tailed) value is equal to greater than 0.05 then the null hypothesis (H0) is accepted. It was found the value of Sig. (2- tailed) in pair 1 and 2. From the value is lowest than 0.05. Conclusion: There is a difference between pupils who receive instruction using the Mnemonic Technique and those who do not.

### Third Hypothesis

Ha : Are the students taught by using Mnemonic technique better in vocabulary mastery.

H0 : Are the students taught by using Mnemonic technique same in vocabulary mastery.

The posttest of the experimental class and the posttest of the control class were compared in order to determine whether the researcher would accept or reject the hypothesis. The researcher used the output of the group statistic from the Independent sample t-test with calculated in SPSS 25 to determine whether Ha or H0 is accepted or rejected. The alternative hypothesis (Ha) is accepted since the posttest experiment class's mean score is higher than the control class's. However,

if the value of mean score of posttest of experiment class is lowest than control class, the null hypothesis (H0) is accepted. The calculated can be seen below:

Table 10. The result of the calculation of score that is gained from the post test

Descriptive Statistics						
	N	Min	Max	Mean	Std. Deviation	Variance
Post-Test EC	32	75	95	85.31	6.342	40.222
Post-Test CC	32	50	80	65.00	8.890	79.032
Valid N (listwise)	32					

It was found that the value of mean score is posttest experiment class and control class was  $85.31 > 65.00$ , from the table above the value of mean score of experimental class was highest than control class. It can be concluded that the students who are taught by using Mnemonic technique better than students who are not taught by using Mnemonic technique.

Based on the finding above, it can be concluded that the all of significant of 2-tailed was lower than  $< 0.005$  it was  $0.000 < 0.05$ , where  $H_a$  is accepted and  $H_0$  is refused. It follows that the use of Mnemonic Technique makes a considerable difference between Students Taught Using Mnemonic Technique and Students Not Taught Using Mnemonic Technique in Terms of Students' Vocabulary Mastery. Last but not least, ninth-grade MT students who were taught utilising the Mnemonic technique had higher comprehension of Muhammadiyah Lawang Tigo Balai.

The purpose of this study was to determine how the mnemonic strategy affected the eighth-grade pupils of MTs M Lawang Tigo Balai's vocabulary mastery. The study results based on the ideas are discussed in this section. Both verbal and written communication require a strong vocabulary. It is used to communicate information, ideas, and feelings to other individuals. Vocabulary is a core component of language proficiency and provides much of the basis for how well learners speak, listen, read, and write, claim Richard and Renandya (Amiryousefi & Ketabi, 2011). Meaning that vocabulary is a fundamental linguistic component that influences whether or not someone can talk, listen, read, and write effectively.

In teaching vocabulary there are some techniques, one of techniques can be used by the teacher is Mnemonic technique. Mnemonic is the technique that can be used to improve the remembering of information especially in vocabulary. Additionally, the students' participation in the memorial activity during the vocabulary learning process will be enhanced by the distinctiveness of the pattern of association generated by the employment of mnemonic devices.

## CONCLUSION

It may be concluded based on the findings of the research and debate that were covered in the previous chapter that: First; There is any significant effect of using Mnemonic technique toward vocabulary mastery. It was found that the significant of 2-tailed was  $0.000 < 0.05$ . with the level significant  $0.05$ . It means the null hypothesis ( $H_0$ ) was rejected and the alternative hypothesis ( $H_a$ ) was accepted.

Second; Between students who are taught utilising the Mnemonic technique and students who are not, there is a discernible difference in the level of vocabulary knowledge among the students. The outcomes of the data analysis show it, it was found that the value of sig.(2- tailed) was  $0.000 < 0.05$ . It can be concluded that  $H_1$  is accepted and  $H_0$  is refused, between students who were taught utilising the Mnemonic. technique and students who were not, there was a clear difference in the level of vocabulary knowledge among the students. The Last; Students who are taught utilising the Mnemonic technique have a greater grasp of the language than students who are not. The outcome of the statistical analysis shows it. It was discovered that the important of 2-tailed was  $0.000 < 0.05$  with the level significant 0.05. It means the null hypothesis ( $H_0$ ) was rejected and the alternative hypothesis ( $H_a$ ) was accepted.

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