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The Use of Mnemonic Devices in Improving Students Vocabulary Mastery at The Secondary School

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Abstract

The purpose of this study was to determine whether utilising a mnemonic device in SMP Negeri 3 Gunungsari's second class improved students' vocabulary mastery. The results show that there was a substantial difference in the student's vocabulary knowledge between before and after the Mnemonic Device Method was used to educate them. The population of the study was the second grade of SMP Negeri 3 Guhungsari Lombok Barat pupils. The sample for the study consisted of 57 students from SMP Negeri 3 Gunungsari, Lombok Barat. To ensure that the whole research population was represented, the researcher only picked one class from class IIA. Class IIA, which included 27 students total—15 women and 12 men—was the research sample. With the school's English teacher's consideration, the class selects one example. The researcher discovered a change in the student's vocabulary competence between the pre-test and post-test in this study. The researcher found that the vocabulary t-test result was 13.41 and the vocabulary t-table was 2.056. This showed that the change in mean score between the pre-test and post-test that was statistically significant was 30.52 < 77.22..

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INTRODUCTION

Background of The Research

Vocabulary is one of the linguistic components that must be learned in the teaching and learning process of English. Learning vocabulary is crucial since it is necessary for us to be able to talk, write, and listen clearly.If a person can identify a word's meaning when they encounter it, they are said to "know" it (Cameron, 2001: 75).

It indicates that in order to learn a word, we must comprehend what it means, as well as how to employ it in a sentence. We must understand a word's definition and be able to employ it in a sentence in order to learn vocabulary automatically.Some earlier academics have experimented with various vocabulary teaching methods, including the use of pictures, games, songs, reading, semantic networks, and mnemonic devices, in an effort to improve the learner's vocabulary knowledge. Each technique has a strong point and a weak point. You may increase your vocabulary in a variety of ways. Knowing your objectives can help you pick the optimal learning strategy when trying to increase your vocabulary.

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Introducing a mnemonic, a type of memory aid, is one of the finest strategies to ensure pupils' success. Any method intended to aid students in improving their memory is referred to as a mnemonic. Mnemonic devices function by making associations between new information and past knowledge using words, images, and sounds.

Students may learn language and material more quickly and efficiently with the use of mnemonics. It entails connecting new knowledge to previously taught material by using a visual image or letter/word pairings. Mnemonics work best when they facilitate learning, clear up misunderstanding over related concepts, and improve information retention and application over time. (2010), page 160 (Shmidman, Ehri). However, in this experimental project in the second class of SMP Negeri 3 Gunungsari Lombok Barat, English vocabulary is being taught to pupils in order to improve their vocabulary.

Problem Statement

1) How well do the pupils in SMP Negeri 3 Gunungsari's second class know their vocabulary before utilising a mnemonic device?

2) How well do the pupils' language skills fare after employing mnemonic devices in SMP Negeri 3 Gunungsari's second class?

3) How has the second class of SMP Negeri 3 Gunungsari's Mnemonic Device improved the pupils' vocabulary mastery?

Benefits of the Research

By employing mnemonic devices, this study hopes to help students expand their vocabulary. It also hopes that students will constantly work to increase their vocabulary, making it easier for them to comprehend and speak English. Additionally, the researcher expects that this study will benefit educators, students, and English teachers in especially for the SMP Negeri 3 Gunungsari Lombok Barat children.

RESEARCH METHOD

Method of Research

This was a pre-experimental research aim to improve the students' vocabulary mastery by using Mnemonic Device in teaching English.

1). Method

This method uses a pre-test as pre-experimental method whit one group pre-test and post-test.

2). Design

The design of this research was one group pre-test

Table 1 Research Design

01	X	02

Where:

01 is Pre-test, X is Treatment, and 02 is Post-test (Gay, 2006:252).

Research Variable

1. Independent

Mnemonic devices are used as an independent variable in the study to increase students' vocabulary proficiency..

2. Dependent

Students' vocabulary learning using some mnemonic device techniques is the dependent variable. such as a key word or acronym system.

Population and Sample

1. Population

The second class of students at SMP Negeri 3 Gunungsari in the academic year 2022/2023 made up the population of this study. There are two each of class IIA and class

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IIB there. 27 pupils were enrolled in class IIA, while 30 were enrolled in class IIB. Thus, there were 57 pupils in all.

2. Sample

Purposive sampling will be used in this study to choose kids from SMP Negeri 3 Gunungsari's second grade. To represent the whole population in this study, the researcher simply enrolled in one class. The second class, which serves as the research's sample, had 27 pupils. With consultation from the school's English instructor, class IIA was selected as the example. The class's level of English competence was the same.

Instrument of the Research

The research tool was a vocabulary exam with 100 questions that was used as a pre-test and post-test based on the information provided for the pre-test to determine prior knowledge, and the post-test administrator observed the students' progress following the treatment.

Procedure of Data Collection

1) Pre-Test

Pre-tests are given by the students to gauge their past knowledge. The test includes a vocabulary component..

2) Treatment

In this stage, the researcher teaches the pupils words using the mnemonic device approach..

1. In the first encounter, the researcher discussed the Mnemonic Device approach before administering the pre-test..
2. Following the researcher's presentation of a collection of images bearing the names of various occupations and fruits, the students discussed words they were familiar with on the white board during the second session. After presenting the students the images, the researcher asked them how much language they could recall regarding the topics..
3. In the third meeting, the researcher offered the students a list of vocabulary words related to different types of colour, home parts, and family names, and asked them to create a sentence using those words.
4. Following that, the researcher provided a list of images that included terminology related to the names of school and tourism-related elements, and in the fourth meeting, the researcher assigned homework to the students.
5. In the fifth meeting, the researcher prepared a summary of the material and provided a visual representation of the names of bodily parts and modes of transportation..
6. In the most recent encounter, the researcher administered a post-test on vocabulary.

3) Post Test

The researcher administered the post-test to the pupils following the treatment. The identical material is used for the pre-test and post-test. The post-test was utilised by the researcher to ascertain if the therapy was successful and whether post-test outcomes were better than pre-test outcomes.

Data Analysis

The researcher employed vocabulary testing to help students acquire language while being assessed using the Mnemonic Device approach. In this study, the methods used for data analysis were as follows.:

1. Scoring the students correct answer of pre-test and post-test.

$$\textit{Students Score} = \frac{\textit{The Number of students correct answer}}{\textit{Total students}} \textit{ X 100}$$

(Gay, 2011: 21)

2. The researcher provided a raw score that may be categorised into the following seven levels:

0-35 = Considered as very poor

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36-55 = Considered as poor
56-65 = Considered as fair
66-75 = Considered as fairly good
66-85 = Considered as good
86-95 = Considered as very good
96-100 = Considered as excellent

3. The pupils' average test score was determined using the formula.:

$$\bar{x} \frac{\sum x}{N}$$

Where:

$\bar{x}$ = Mean score
$\sum x$ = The sum of all the scores
N = The total of the students'

(Guy, 2006: 320)

4. The formula below can be used to determine the proportion of the student's vocabulary growth.:

$$\% = \frac{x_1 - x_2}{x} \times 100$$

Where:

$\%$ = The percentage of improvement
$x_2{}^N$ = The total score of post-tests
x_1 = The total of pre-test

(Gay, 1987)

5. determining the test's value to determine the significant difference between the pre- and post-test. The researcher employs the following formula::

$$D = \frac{\sum D}{N}$$

D = The mean deviation
D = The sum of the deviation
N = The total number of students

6. determining whether there is a significant difference between the students' vocabulary knowledge before and after the Mnemonic Device Method teaching

$$t = \frac{/1\bar{D}/1}{\frac{\sqrt{\sum D^2 - \left[\frac{\sum D}{N}\right]}}{N(N-1)}} 2$$

T = Test of significance
$\bar{D}$ = Mean of score
$\sum D$ = Sum of the total score difference
$\sum D^2$ = Square of the sum of total score difference
N = Total number of students
1 = A constant number

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FINDING AND DISCUSSION

Finding

The finding obtained through the vocabulary test in second class of the students of SMP Negeri 3 Gunungsari, were presented as follows:

1) The rate percentage of the students' score obtains through vocabulary test.

The pre-test and post-test result of the students for experimental group tabulated as follow:

Table 2 The rate percentage of the students' score

b NO	Classification	Range	Frequency		Percentage	
			Pre-test (X1)	Post-test (X2)	Pre-test	Post-test
1	Very poor	0 -35	16	0	59,26%	0%
2	Poor	36-55	9	3	33,33%	11,11%
3	Fair	56-65	2	6	7,41%	22,22%
4	Fairly good	66-75	0	4	0%	14,81%
5	Good	76-85	0	2	0%	7,41%
6	Very good	85-95	0	4	0%	14,81%
7	Excellent	96-100	0	8	0%	29,64%
Total	27	27	100%	100%		

The table above demonstrates that nine (33.33%) students had a bad score, while sixteen (59.26%) students received a very poor score on the pre-test. Only two (7.41%) of the pupils received a decent grade. No student received an outstanding, very good, decent, or reasonably good grade.

While no student had an extremely low score on the post-test. Three of the pupils (11.11%) received bad grades. Six (22.22%) students received a reasonable grade, while four (14.81%) students received a pretty excellent score. Eight pupils (29.64%) received an outstanding score, two (7.41%) received a good score, and four (14.81%) received a very good score.

the average pre- and post-test score for the pupils. The mean score of the post-tests is 30,52 < 77.22, which is an improvement over the means of the pre-test and post-test (the mean score of the post-tests is higher than the pre-test).

2). The students' mean score

Following computation of the pre- and post-test results for the students, the mean score and standard deviations of their use of mnemonic devices to boost vocabulary knowledge are as follows..:

Table 3. The mean score of the students' pre-test and post-test.

Test	Mean score
Pre-test (X1)	30.52
Post-test (X2)	77.22

According to the table above, the post-test students' mean score was 77.22, while the pre-test students' mean score was 30.52. As a result, the post-test's mean score for the students was greater than the pre-test's mean score. This means that employing mnemonic devices during teaching might help pupils become more fluent in their language.

3. Vocabulary development in pupils using mnemonic devices

The researcher calculated all the data after administering the therapy and test, and the results are as follows.:

Table 4. The improvement of students' vocabulary of pre-test and post-test

Improvement	**Test**	**Mean score**
153%	Pre-test (X1)	30.52

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	Post-test (X2)	77.22

The kids' improvement was estimated to be 153%. According to the table above, the students' mean score on the pre-test was 30.52, and on the post-test, it was 77.22.

Out of the 27 students who took the pre-test, one received a score of 1, one received a score of 2, one received a score of 4, one received a score of 8, two received scores of 11, two received scores of 16, one received a score of 21, one received a score of 25, two received scores of 26, one received a score of 27, one received a score of 30, one received a score of 38, one received a score of 39, one received a score of 41, one received a score of The pre-test total was 830, and the average score was 30.52.

One student out of the 27 who took the post-exam had a score of 99, according to the students' test results. There, one student scored 41, one student scored 46, one student scored 58, three students scored 60, two students scored 63, one student scored 67, one student scored 7, one student scored 75, one student scored 81, one student scored 85, one student scored 87, one student scored 89, one student scored 93, one student scored 94, three students scored 96, three students scored 97, and there, one student scored 98. Therefore, the post-test total was 2085, and the averages score was 77.22..

4. Hypothesis Testing

The t-test statical analysis for non-independent sample was used to determine whether or not there was a statistically significant difference between the pre-test and post-test results. The outcome of the t-test was 13.41.**Table 5. Hypothesis Testing**

T- test value	T-table value	Variable
13.41	2.056	Vocabulary test

In the table above, the t-test value (13.41) was higher than the t-table value (2.056). This finding led to the conclusion that the difference between the two means was statistically significant.

The alternative hypothesis (H1) was accepted and the null hypothesis (H0) was rejected when the value of the t-test was greater than the value of the t-table. Accordingly, the statement "There was a significance difference of the students' vocabulary mastery before and after teaching through Mnemonic Device Method" was accepted (p = 0.05, df = 26).

According to the results of the study above, the researcher determined that there was a substantial change between the pre-test and post-test in the students' usage of the Mnemonic Device Method to increase their vocabulary mastery.

Discussion

The percentage of the pre-test score in the students' vocabulary before delivering therapy demonstrated that the kids' vocabulary achievement was quite low. The students' mean pre-test score was 30.52, while their post-test score was 77.22, demonstrating a remarkable gain in vocabulary of 153% following the therapy.

Out of 27 pupils, the vocabulary achievement during the pre-experimental period revealed that 2 students (7.41%) were categorised as fair, 9 students (33.33%) as poor, and 16 students (59.26%) as extremely poor. The pupils' mean pre-test score was 30,52.

After six sessions of treatment, the experiment class's vocabulary improved, with 8 students (29.64%) being considered as excellent, 4 students (14.81%) being very good, 2 students (7.41%) out of 27 being categorised as good, 4 students (14.81%) being categorised as fairly good, 6 students (22.22%) being categorised as fair, and 3 students (11.11%) being categorised as poor.

Therefore, it has improved from the pre-test mean score of 30.52 to the post-test mean score of 77.22 (the post-test mean score was higher than the pre-test). Degree of freedom (df=N-1) = 26 was used to determine the level of significance (0.05), and it was 2.056.

The t-test was bigger than the t-table when the vocabulary t-test value was calculated to be 13.41 and the vocabulary t-table value to be 2.056. This demonstrates that there was a statistically significant mean score difference between the pre-test and post-test.

These results show that there was a substantial change in the students' vocabulary knowledge between before and after the Mnemonic Device Method was used to educate them.

CONCLUSSION

According on the data analysis results and the discussion from the preceding chapter, the researcher came to the following conclusions:

1) The results of the students' pre-test and post-test showed a significant difference when language was taught using mnemonic devices. The test's results, which showed a substantial difference between the two variables, backed it.

2) Based on the research's findings, the researcher believes that using mnemonic devices might help pupils increase their vocabulary.

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