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# THE EFFECTIVENESS OF USING WORD MAPPING STRATEGY IN INCREASING STUDENTS' VOCABULARY MASTERY AT SMP NEGERI 3 KAPONTORI 

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#### Abstract

Lack of vacabularies effects the learners in understanding English. The aim of this study was to find out the effectiveness of using word mapping strategy in increasing students' vocabulary mastery at SMP Negeri 3 Kapontori. This study used Pre-Experimental design. The population was students of class VIII SMP Negeri 3 Kapontori academic year 2019/2020. T-test was used for analyzing the data. Research findings showed $t_{\text {test }}$ was lower than $t_{\text {table }}(-13.248<2.079)$. In conclusion, word mapping strategy effect positively on students'vocabulary mastery at SMP Negeri 3 Kapontori.


Keywords: vocabulary, word mapping strategy

## 1. INTRODUCTION

### 1.1 Background

Teaching English in Southeast Sulawesi province of Indonesia is quite difficult due to the students do not always use it in their daily life. The teachers should give more efforts to overcome the problems in English class. The most popular problem in almost English class is lack of vocabularies. This issue is getting worst with the national new curriculum in which English is deleted in elementary level. Thus, the young English learners will meet English only when they enter junior high school. It becomes a serious issue because at this level the new curriculum also demand
the learners to start to analyze the text, whereas even knowing alphabet they still get the difficulties.

Based on short interview between researchers and English teacher in one the remote schools in this province located in Kapuntori, SMP Negeri Kapuntori, which is the subject of this study reported that their learners have been experienced this situation for long time. The teacher need newest method in their teaching. That is why the researcher really want to conduct this study by promoting word mapping strategy as the solustion. Word mapping strategy is one of the most powerful approaches to teaching vocabulary because it engages students in thinking about word relationships. The strategy promotes students' active exploration of word relationships, there by lead to a deeper understanding of word meanings by developing their conceptual knowledge related to words [1]. Sinatra [2] in their research showed word mapping strategy was successfully in increasing students'vocabularies in the junior grades. Based on this supporting research then the researchers want to conduct the study entitled the Effectiveness of using word mapping strategy in increasing students' vocabulary mastery at SMP Negeri 3 Kapontori.

In this research, the researchers only focus on vocabulary mastery with using word mapping strategy, especially material about "interpersonal interaction text, to give suggestion and to state rules and obligations". Objective of the research was to find out the effectiveness of using word mapping strategy in increasing students' vocabulary mastery at SMP Negeri 3 Kapontori.

### 1.2 Theoretical Review

### 1.2.1 Vocabulary

### 1.2.1.1 Theory of Vocabulary

In the learning English, the most important thing that should be learned is vocabulary because without vocabulary we cannot write, read, listen, and speak. Besides that, we cannot understand about the meaning of words. The choice in vocabulary selection and methods used in teaching
vocabulary are important factors. Thornbury [3] summed up that without vocabulary nothing can be conveyed. Vocabulary refers to all words in the whole language used in a particular variety. Hatch and Brown [4] said that vocabulary refers to a list or a set of words that individual speakers of language might use. Since vocabulary is a list, the only system involved is that alphabetical order. The choice in vocabulary selection and methods used in teaching vocabulary are important factors.

Vocabulary has an important role in language learning process. It will be helpful for students to mastery language skills and the can express idea. According to Thornbury [3] words are the basic unit of language to support it. Without vocabulary the person cannot communicate effectively and express idea. It will be better if the students know the meaning of vocabulary. Ur [5] states vocabulary also can be defined, roughly, as the words we teach in the foreign language. The words also can be made up of two or three words or more but express a single idea.

Based on the explanation above, it can be concluded by the researcher that vocabulary is the total number or list of words and known by everyone to make a language. It must be mastered by the students as a core component of language proficiency in their learning process.

### 1.2.1.2 Teaching Vocabulary

According to Nation at al [6] teaching vocabulary is among the least important of a teacher's job. In this case teachers teach the students to know the meaning of the words based on the context. There are several reasons of this. First, there are many words that a learner needs to know. Second, learning word is a cumulative process that requires meeting words. Third, teaching words need to be limited in scope. Finally knowing words well involves knowing a range of aspect of word, including the meaning, form and use.

According to Thornbury [3] in teaching vocabulary, there are many ways which can be used by the teacher in presenting the material. They are:
a. Translation

The easiest to where improve the meaning of difficult words.
b. Explanation

The ways where the teacher has revealed the words to the students and explain them.
c. Synonym

The teacher gives words which have same type and the same general meaning.
d. Antonym

The teacher gives words which have different meaning.
e. Showing the real object

The teacher shows picture and explains them about what happen in the pictures or things that are in the pictures.

From the explanation above the researcher tries to apply the method that can be used in teach vocabulary in easy way. Teaching English vocabulary using word mapping strategy is easy way and enjoyable to increase their vocabulary, because the students can learn more active learners.

### 1.2.1.3 The Strategy of Teaching Vocabulary

Vocabulary is the important aspect in teaching English, it is important that those working with young readers help foster their development of a large "word bank" and effective vocabulary learning strategies. Researchers have identified strategies that can be taught by teachers and used by students to significantly improve the quality of student learning. Experts in the field believe that vocabulary learning should not be left to chance. Vocabulary building techniques benefit all learners, but have been shown to be critical for learners with limited personal experience.

According to Blachowicz and Fisher [7] one way to help the students own the words as follows:

1. Develop word awareness and love of words through word play.
Several of the strategies and activities in this booklet focus on this aspect of vocabulary development. Too often, in an attempt to cover as much content as possible, we forget to give our students
the opportunity to play with words. We forget that while they play with words, students create meaning.
2. Develop explicit, rich instruction to build vocabulary.
Blachowicz and Fisher [7] suggest the STAR model because it provides explicit vocabulary instruction. This model is featured on page 5 of this booklet.
3. Build strategies for independence.

Helping students learn to understand vocabulary by using context clues, word parts, and, yes, even dictionaries can lead to word ownership. However, teachers need to explicitly teach students how to use these tools to develop the skills needed to make use of context clues, word parts, and dictionaries.
4. Engage students actively with a wide range of books.
Exposing students too many forms of literature in a variety of ways including reading aloud to and with them helps students develop broad vocabularies.

Blachowicz and Fisher [7] formulate some strategies to build student vocabulary. They are as follow:

1. Star.

Providing explicit and direct instruction is one sure way to help students increase their vocabularies. The STAR model of select, teach, activate, and revisit provide a framework for teachers as they plan vocabulary instruction.
2. Discussion Starter stimulates class discussions.
Discussion Starter stimulates class discussions about vocabulary that relate to a unit, topic, or theme. The discussion web also gives students the opportunity to consider their prior knowledge of the vocabulary terms and concepts.
3. Frontloading.

Frontloading provides rich dialogue and experiences that allow students to develop vocabulary by accessing their prior knowledge before reading content. When students have the opportunity to use their prior knowledge, they exhibit an increase in vocabulary and content
knowledge. In addition, students show their understanding as they interact with difficult content material. Frontloading have different name that is list and word wall strategy.
4. Word mapping

Word mapping strategy is a strategy to help students understand the meaning of words. Word mapping strategy is referred to by different names, such as semantic mapping, concept mapping, and word clusters, and semantic feature analysis. The strategy may be adapted to the nature of vocabulary instruction, the learning outcomes, and students' grade levels.
5. Talk fast - talk a mile a minute

Effective vocabulary instruction includes exposing students to words multiple times using various methods. Talk Fast is a game that increases vocabulary knowledge through word play.
6. Synectic Comparisons

Synectic comparisons is a strategy for comparing content to an unrelated object. It causes students to think about vocabulary words in creative ways. In a synectic comparison, the brain has to compare two things that aren't usually compared. In addition, the strategy requires the brain to create pictures as it searches for comparisons. As a result, students are more likely to retain the information.
7. Word sorts

Word sorts help students analyze words by looking for patterns. Grouping words according to similar attributes is an effective before reading strategy that activates prior knowledge of vocabulary words or phrases. It is especially useful for nonfiction material.
8. Vocabulary Notebooks/Journals

Individual vocabulary notebooks invite students to strengthen their word and internalize meaning for use throughout their lives.

### 1.2.2 Definition of Word Mapping Strategy

The word mapping strategy is one of the most powerful approaches to teaching vocabulary because it engages students in thinking about word relationships Graves [1]. This mean the strategy promotes students' active exploration of word relationships, thereby leading too deeper understanding of word meanings by developing their conceptual knowledge related to words. Word mapping strategy is referred to by different names, such as semantic mapping, concept mapping, and word clusters. The strategy may be adapted to the nature of vocabulary instruction, the learning outcomes, and students' grade levels. For example, for learning some words, it may be more appropriate to have students explore the synonyms, antonyms, and origin of the words, whereas for other words it may be more helpful to find examples and non examples of the words.

Word mapping is a visual organizer that promotes vocabulary development. At the top or center of the organizer is the vocabulary word. Branching off from the word is additional information related to the word. This strategy also assists students in developing broader concepts and definitions, or synonyms/antonyms.

### 1.2.3 Procedure of Using Word Mapping Strategy in Teaching Vocabulary

The framework of word mapping includes: the concept of word, two category examples, and other examples. This is a very interactive process and should be modeled by the teacher first. The steps involved in word mapping are: write the concept word on the board, explain the steps involved and have students think of as many words as they can for the concept word, write the list on the board or overhead and have students copy it, and finally in groups have students put the words into categories.

According to Nation [6], below are the steps to use word mapping in teaching vocabulary:

1. The teacher writes the topic of piece of writing in a short form in the middle of the board, for example Energy.
2. The learners then suggest ideas that they have about energy and the teachers notes the most important words and phrases from these ideas on board radiating out from the topic. If ideas are slow in coming the teacher can give some guiding questions, such as what are the different kinds of energy? What energy sources do we use when we drive a car?
3. After a reasonable number of words and phrases are on the board and these covers the main ideas, the teacher and learners then suggest how these ideas could be sequence in a piece of writing.
4. If the teacher wants to make sure that the words or phrases are actually remembered, the teacher tells the learners to look at the board for a minute and then cleans the board. The learners then come up one by one to reconstruct what was on the board, or tell the teacher what to write and where.

## 2. METHOD OF THE RESEARCH

### 2.1 Design of the Research

Design of this research was PreExperimental design. Pre-Experimental Design was in one-group, pre-test and posttest.

Table 1. Design of the study

| Group | Pre-test | Treatment | Post- <br> test |
| :---: | :---: | :---: | :---: |
| Experiment | 01 | X | 02 |

01 is the result of pretest of students'achievement before being given treatment (treatment). X is treatment rendered used process skills approach science. While 02 is a post-test; students' achievement after given treatment.

### 2.2 Population and Sample

a. Population

The population in this study were students of class VIII SMP Negeri 3 Kapontori.
b. Sample

The sample of this study was 22 students of class VIII. Total sampling was used in this research.

### 2.3 Instrument of the research

## Test

The test divided into two tests, pre-test and post-test. The pre-test was given to the students before the treatment applied while the post-test after treatment applied.

### 2.4 Data Collection

The technique of collecting data used in this research were:

1. Pre-test

The researchers gave a pre-test to the students. The purpose of pre test was determining the level of understanding or initial ability of students towards material given. There were 10 items consisting of questions related describing words. This test was multiple choice.
2. Post-test

The last step was giving the post-test. It was given after the treatment finished. The post-test was purposed to know the result of students' achievement after given treatment.

### 2.5 Technique of Data Analysis

The data was analyzed in two stages. The first was descriptive statistic and the second was descriptive statistic.

### 2.5.1 Descriptive Statistic

Creswell [8] states that descriptive statistic is require to indicate general tendency (mean, mode, and median), the spread of score (variance, standard deviation, range). Besides that, the descriptive statistic is also used to display the minimum and maximum score). To determine the effectiveness of word mapping strategy and students'vocabulary mastery then the test were conducted. Next, the result of the test were analyzed in following steps:

The test was multiples choice and the scoring criteria as follows:

1) If the answer is wrong then the score is 0
2) If the answer is correct then the score is 1
3) Final Score $=\frac{\text { Raw Score }}{\text { Ideal Maximum Score }} \times 100$

Table 2. Classification of students' vocabulary mastery

| No | Score <br> Range | Criteria | Score on <br> Letter |
| :---: | :---: | :---: | :---: |
| 1 | $91-100$ | Exellent | A |
| 2 | $81-90$ | Very Good | B |
| 3 | $71-80$ | Good | C |
| 4 | $61-70$ | Fair | D |
| 5 | $51-60$ | Poor | E |
| 6 | $\leq 50$ | Very Poor | F |

### 2.5.2 Inferential Statistic

Inferential statistic is a technique of statistic used to analyze the simple data and the result will be apply to population.

## 3. RESULT AND DISCUSSION

### 3.1 Result

### 3.1.1 The Result of Pretest in Experiment Group

The researchers found the classification on students' vocabluary in the following table.

Table 3. The Pretest Result of Experiment Group

| Classification | Score | Pretest |  |
| :--- | :---: | :---: | :---: |
|  |  | Experimental group |  |
|  | F <br> (frequency) <br> (precentage) |  |  |
| Excellent | $91-100$ | - | $(0)$ |
| Very Good | $81-90$ | - | $(0)$ |
| Good | $71-80$ | - | $(0)$ |
| Fair | $61-70$ | - | $(0)$ |
| Poor | $51-60$ | 6 | $27,3 \%$ |
| Very Poor | $<50$ | 16 | $72,8 \%$ |
| 22 |  |  |  |

Table 3 above showed none of student got score 91-100 or excelent classification. In line with that in classification very good (81-90) and good (71-80) or fair (61-70), the data showed the same result namely none of
learner reached those classification or $0 \%$. Meanwhile, there were 6 students in poor classification or gained score 51-60 (27,3\%). Next, 16 students reached $<50$ or $72,8 \%$. In conclusion, there is no student got excellent, very good and good classification. They were in very poor and poor classification.

### 3.1.2 The Result of Posttest in Experiment Group

The researchers found the classification of students' vocabluary mastery in the following table.

Table 4. The Result of Posttest in Experiment Group

| Classification | Score | Post test |  |  |
| :--- | :--- | :---: | :---: | :---: |
|  |  | Experimental group |  |  |
|  | F <br> (frequency) | (\%) <br> (precentage) |  |  |
| Excellent | $91-100$ | - | $(0)$ |  |
| Very Good | $81-90$ | - | $(0)$ |  |
| Good | $71-80$ | 2 | $(9,1 \%)$ |  |
| Fair | $61-70$ | 3 | $(13,6)$ |  |
| Poor | $51-60$ | 13 | $(59,1 \%)$ |  |
| Very Poor | $<50$ | 4 | $(18,2 \%)$ |  |
| Total | 100 |  |  |  |

Table 4 above showed that there is no student reached interval score 91-100 (excellent) and score 81-90 (very good) or $0 \%$. Then, 2 students reached score 71-80 (good), meanwhile 3 students got score 61-70 (fair) and 13 students were in poor classification or interval score 51-60. Next, 4 students reached $<50$ score (very poor). It can be concluded that in posttest, we can see the improvement of learners after using word mapping strategy. If before treatment there is no student in good and fair classification but in posttest there were 2 learners ( $9.1 \%$ ) who reached in good classification and 3 students (13.6\%) were in fair classification.

### 3.1.3 Descriptive statistic

## a. Students' vocabulary achievement in pretest

The descriptive analysis of the students test result is presented in the following table:

Table 5. Descriptive Statistic of Students' Vocabulary achievement in Pretest Score

| No | Statistic |  |
| :---: | :--- | :---: |
| 1. | Mean | 35.45 |
| 2. | Median | 30.00 |
| 3. | Mode | 20 |
| 4. | Variance | 178.355 |
| 5. | Std.Deviation | 13.355 |
| 6. | Minimum | 20 |
| 7. | Maximum | 60 |

Table 5 showed that the mean score was 35.45 , median was 30.00 , mode was 20 , variances was 178,355 , standard deviation was 13.355 , minimum score was 20 , and maximum score was 60 . If we see the score of mean was 35.45 then it was categorized as fair.

Table 6. Descriptive Statistic of Students' Vocabulary Achievement in posttest score

| No |  | Statistic |
| :--- | :--- | :---: |
| 1. | Mean | 55.91 |
| 2. | Median | 50.00 |
| 3. | Mode | 50 |
| 4. | Std. Deviation | 12.212 |
| 5. | Variance | 149.134 |
| 6. | Minimum | 40 |
| 7. | Maximum | 80 |

Table 6 showed that the mean score was 55.91, median was 50.00 , mode was 50 , standard deviation was 12.212 , variance was 149.134, minimum was 40 , and maximum was 80 . Based on the score of mean then it was categorized as fair.

### 3.1.4 Hypothesis testing

In testing the hypothesis of this study, the researchers used $t$-test. Significance of the ttest is seen from the value of $\rho$ that compared with the value of significance level $\alpha=0.05$. if $\rho<\alpha$ then the variable is significant. The following table is the result of t-test.

Table 7. Paired Sample Test

| Paired Samples Test |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Paired Differences |  |  |  |  | t | df | $\begin{aligned} & \text { Sig. (2- } \\ & \text { tailed) } \end{aligned}$ |
|  |  | Mean | Std. <br> Devi <br> ation | Std. <br> Error <br> Mean | 95\% Confidence Interval of the Difference |  |  |  |  |
|  |  |  |  |  | Lower | Upper |  |  |  |
| $\begin{gathered} \text { Pair } \\ 1 \end{gathered}$ | Pretest- <br> Posttest | -20,455 | 7,222 | 1,540 | -23,657 | -17,252 | -13,284 | 21 | ,000 |

Table 7 showed the value of $t_{\text {count }}$ was -13.248 while $t_{\text {table }}$ was 2.079 . It means that $t_{\text {count }}$ is lower than $\mathrm{t}_{\text {table }}(\rho<\alpha)$ or $\mathrm{H}_{0}$ is rejected and $\mathrm{H}_{1}$ is accepted.

### 3.2 Discussion

In pretest, the data showed none of student student got score 91-100 or excelent classification. In line with that in classification very good (81-90) and good (71-80) or fair (61-70), the data showed the same result namely none of learner reached those classification or $0 \%$. Meanwhile, there were 6 students in poor classification or gained score 51-60 (27,3\%). Next, 16 students reached < 50 or $72,8 \%$. In conclusion, there is no student got excellent, very good and good classification. They were in very poor and poor classification. While in posttest 2 students could reach score $71-80$ or good calssification, meanwhile 3 students were able to achieve score 61-70 (fair) and 13 students were in poor classification or interval score 51-60. Unfortunately, 4 students still in score < 50 (very poor). It can be concluded that in posttest, we can see the students' vocabularies improved after using word mapping strategy.

The value of $t_{\text {count }}$ was -13.248 while $t_{\text {table }}$ was 2.079. It means $t t_{\text {count }}$ is lower than $t_{\text {table }}$ ( $\rho<\alpha$ ). So, the alternative hypothesis (Ha) was accepted and the null hypothesis (Ho) was rejected. Meaning that there was significant effectiveness of using word mapping strategy in increasing students' vocabulary mastery at SMP Negeri 3 Kapontori.

## 4. CONCLUSION

Based on research findings showed word mapping strategy effects on increasing students' vocabulary mastery at SMP Negeri 3

Kapontori. This can be seen from the result of the mean score of pre-test and before treatment was 35.45 and the result mean score of post-test after treatment was 55.91 . Besides the inferential statistic showed the value of $t_{\text {test }}(-13.248)$ was lower than $t_{\text {table }}$ (2.079). So, the alternative hypothesis (Ha) was accepted and the null hypothesis (Ho) was rejected. It means that there is significant effectiveness of using word mapping strategy in increasing students' vocabulary mastery at SMP Negeri 3 Kapontori.

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