

# The Effectiveness of Using Picture to Teach Vocabulary at Elementary School

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**Keywords:** Effectiveness, Picture, Teaching Vocabulary.

**Abstract:** The objective of this research was aimed to find out whether teaching vocabulary using picture better than teaching vocabulary without picture (conventional) at Students of Elementary School. The Method of this study was a quasi-experimental design. The samples were 60 students. Meanwhile, there were some instruments used by the researcher to help him to collect data such as pre-test, treatment, and post-test result. The data were described based on the planning, implementation of process standard in teaching and the assessment as planned in the lesson plan. The data analysis found out that an F-value of the effect of teaching method was 10.781 and significance value was .002 where it is less than 0.05 and the mean score of post-test for experimental group was 87.60 and for control group was 80.80. The result of the research shows that experimental method has significance value and more better than conventional method. From the findings, the researcher applied that picture be one alternative used in teaching vocabulary and it can effectively influence the students' confidence. Finally, the researcher was support and encourage students to learn English better than before.

## 1 INTRODUCTION

The objective of this research was aimed to find out whether teaching vocabulary using picture better than teaching vocabulary without picture (conventional) at Students of Elementary School. The Method of this study was a quasi-experimental design. The samples were 60 students. Meanwhile, there were some instruments used by the researcher to help him to collect data such as pre-test, treatment, and post-test result. The data were described based on the planning, implementation of process standard in teaching and the assessment as planned in the lesson plan. The data analysis found out that an F-value of the effect of teaching method was 10.781 and significance value was .002 where it is less than 0.05 and the mean score of post-test for experimental group was 87.60 and for control group was 80.80. The result of the research shows that experimental method has significance value and more better than conventional method. From the findings, the researcher applied that picture be one alternative used in teaching vocabulary and it can effectively influence the students' confidence. Finally, the researcher was support and encourage students to learn English better than before.

### 1.1 Statement of the Problem

The main problem of this study is, do the students taught using picture have better vocabulary mastery than the students taught without picture (conventional).

### 1.2 Hypothesis

Hypothesis (Hi): The students who are taught using picture have better vocabulary mastery than those who are taught using conventional method

Null Hypothesis (Ho): The students who are taught using picture have worse vocabulary than those who are taught by using conventional method.

## 2 THEORETICAL BASIC

### 2.1 The Concept of Teaching

Teaching is a profession conducted by using a combination of art, science, and skill. It is an art because it relies on the teacher's creative provision of the best possible learning environment and activities

for his/her students. It is a science since it is a system, an ordered set of ideas and methods used by the teachers in doing their main jobs: planning a lesson, implementing the plan in the classroom and evaluating the outcome of the activities. While Brown (2004) states teaching is showing or helping someone to learn how to do something, giving instructions, guiding in the study of something, providing with knowledge, causing to know or understand.

Base on the definition above, the writer can conclude that the meaning of teaching is a process of a transferring knowledge from someone to another one in order to make people know or understand about something.

## 2.2 Pictures as Media

Picture is used by teacher to stimulate student memory and it is one of strategy to attract students' attention in learning vocabulary. From experts opinion written previously, the researcher can conclude that picture has fulfill edits functions educative media, for example; it can improve students' motivation and it also provides stimulus that may upgrade students' memory and attention. Picture can be classified into visual aid and picture is also material that easy to find.

Pictures are found everywhere. They can be drawn either on the blackboard or chart paper or even cut-outs (Nagaraj, 1996). Through pictures, learners can be shown people, places, and things from areas for outsides their own experiences. Pictures can also represent images from ancient time or portray the future. We will support this statement if we realize that every time we see pictures, there must be something we want to say about the pictures.

For most people, Brown (2007) stated, pictures provide feeling that they make contacts with the real world. Perhaps, there are millions of individuals all over the world who have never seen an ocean except in some kind of pictures. The picture may be used to clarify their imagination about ocean.

## 2.3 Advantages of Using Pictures

Pictures are one kind of media that can help the teacher draw the students' interest and rise up their motivation. If the students are motivated, they will participate actively and will learn seriously during the teaching-learning process.

According to Gerlach and Ely (1980), there are advantages of the pictures as follows:

- Pictures are in expensive and widely available;

- They provide common experiences for an entire group;
- The visual detail makes it possible to study subjects which would otherwise be impossible;
- Pictures can help to prevent and correct misconceptions;
- Pictures offers stimulus to further study, reading and research. Visual evidence is a powerful tool;
- They help to focus attention and to develop critical judgment;
- They are easily manipulated.

From the explanation above that pictures have an important role and advantages in teaching learning process in order to make the students be more active in teaching learning process, especially vocabulary, so that the teaching-learning process can be reached.

## 2.4 The Concept of Vocabulary

Types of vocabulary that may be encountered by readers in their reading:

### 2.4.1 General Vocabulary

Refers to the words that comprise the major portion of one's vocabulary used in everyday communication, such as table, house and chair.

### 2.4.2 Specialized Vocabulary

Refers to the words with multiple meanings that change from one content area to another, such as mass, root, and rise.

### 2.4.3 Technical Vocabulary

Refers to the words that are essential for the understanding of specific content area. These words relate to only one content area and are crucial for understanding of its concepts, such as gene (science) and embargo (social studies). In this study, the writer focused on general vocabulary because according to Suyanto (2007) states that teaching vocabulary is better one if the materials are used still in children world contexts in order to make them easier in practice for communication. Based on the statements, the writer assumes that study about the word that used in everyday communication plays an important role to make the communication be fluently.

## 2.5 The Concept of Countable and Uncountable Noun

### 2.5.1 Countable Noun

Countable nouns are individual people, animals, places, things, or ideas which can be counted. Countable nouns are for things we can count using numbers. They have a singular and a plural form. The singular form can use the determiner "a" or "an". If you want to ask about the quantity of a countable noun, you ask "How many?" combined with the plural countable noun.

Singular	Plural
One dog	two dogs
One horse	two horses

### 2.5.2 Uncountable Noun

Uncountable nouns are not individual objects, so they cannot be counted.

Uncountable nouns are for the things that we cannot count with numbers. They may be the names for abstract ideas or qualities or for physical objects that are too small or too amorphous to be counted (liquids, powders, gases, etc.). Uncountable nouns are used with a singular verb. They usually do not have a plural form. Examples: tea, sugar, water

## 2.6 Related Previous Study

The previous study which has been read by the writer and related to writers' study is written by Icuik Harjuno. He concludes that it is effective using pictures to teach vocabulary about objects around school environment of SDN Manyaran 03 Semarang. He found that picture can improve the students' vocabulary mastery based on the result analysis data in the cycle 1, there was an increase or improvement of the students English vocabulary ability in cycle 2. In the cycle 1 the students were active was 67.23% and in the cycle 2 the students were active was 85.29%. There are some similarities between Irzawati study and the writer study. The similarities related to the media of teaching and method research namely: Picture.

The differences can be found in the kind of theme which are used in the study Irzawati applies picture on the "fruits and animals theme, there is significant difference grades between students who are taught by using pictures and the student who are taught not using pictures. The difference of the development meaning that pictures was effective as teaching media in improving students' ability in vocabulary. So, it is

suggested for English teacher to teach using pictures in improving the students' ability in vocabulary.

## 3 RESEARCH DESIGN

In this research, the purpose of the study is to find out whether the using picture in teaching countable nouns and uncountable nouns is effective to the students' vocabulary achievement, the research design used in this research is a quasi-experiment design. This research carried out at Sixth Grade Students of Elementary School and the sample of this study was only 60 students. They were grouped into classes. The experimental group (Class A) consisted of 30 students while the control class (Class B) consisted of 30 students.

The techniques of collecting data were pre-test, treatment and post-test to get a clear data of the effect of learning vocabulary using pictures. In pre- test the students given a test and he test consisted 25 items in the form of fill in the blank and choices provided. The time allocated to accomplish the test was 30 minutes. This test was aimed at knowing the students' vocabulary background knowledge toward the material that they were going to learn.

After the student did the pre-test, there was a meeting for every group to get treatment. The materials were taken from some sources such as books, worksheet or internet related to the topic to be discussed. For experimental group taught by using picture but for the control group was taught by using conventional method or the researcher only explained the topic without picture as the treatment in the teaching learning process in the classroom.

The researcher just gave a text that has correlation with the topic of discussion then the students asked to read and then underlined the difficult/unfamiliar words and the last answered the questions. After giving treatment to each group, the researcher gave a post-test to the each group to know how the teaching using picture is more effective. The test consisted 25 items in the form of fill in the blank and choices provided. The time allocated to accomplish the test was 30 minutes. Moreover, the result of this test used as the data to measure that picture is more effective in teaching vocabulary.

In analyzing the data, a kind of the data analysis was applied; it is Analysis of Covariance or ANCOVA. It was used to know significant differences between the students' vocabulary achievement in the experimental group than in the control group. Test is examination or trial of something to find its quality, volume, and completion.

The objective of giving a test in this study is to see or find out whether or not it is effective to use picture in teaching countable noun and uncountable noun.

### 3.1 Validating the Test

Validity is the most important consideration in developing and evaluating measuring instruments. Historically, validity was defined as the extent to which an instrument measured what it claimed to measure (Ary et al., 2002).

There are 3 types of validity: construct validity, content validity and criterion validity. For the purpose of this study only content validity is used as an achievement test (Ary et al., 2002). In this case, the test was justified in term of (1) the relevance of the test items of the purpose of the study, (2) the relevance of the items to the developing rubrics or scoring procedures, (3) the appropriateness of the test items to the level of the students. In this research, the researcher used the test consist of 25 multiple choices and the technique of scoring is easy so it's not consuming the time. In each item scores 4 points, so the total score is 100. The test had done 30 minutes to know the test how easy or difficult the test items, they were calculated by using difficulty index. The result of the difficulty index can be seen below:

$$I = \frac{B}{N} \quad (1)$$

Note:

I = Difficulty index

B = Students that have right answer

N = Students follow the test

The Range of Values

0 – 0.30 = Difficult

0 – 0.70 = Medium

0.71 – 1.00 = Easy

### 3.2 Developing and Constructing the Test

The researcher constructs his own test to take make it tailored to the specific research question. There are 25 items for pre-test and post-test. The researcher selected instructional material to develop and construct the test and in taking the score it is used Kuder-Ricardson procedures.

Online statistics helps you in estimating the test reliability using Kuder-Richardson Formula 21 calculator.

$$\rho_{KR21} = \frac{k}{k-1} \left[ 1 - \frac{\mu(k-\mu)}{k\sigma^2} \right] \quad (2)$$

k : Number of questions

$\mu$  : Population mean score

$\sigma^2$  : Variance of the total scores of all the people

$\rho_{KR21}$ : Reliability of the test

Here are a few explanatory notes for the commands.

- Reliability uses only cases with complete data on the item variables. ScoreA is computed here only for cases with such complete data so that the KR21 is based on the same cases as the Reliability output.
- The KR21 formula uses the population ("biased") estimate of the scale score variance, whereas Aggregate computes the sample ("unbiased") estimate. Also, Aggregate will save the standard deviation of a variable to the new data set, but does not have a function to save the variance. Therefore the standard deviation is saved by Aggregate as scoreA\_sd and this value is squared and then multiplied by (N-1)/N in the Compute command to get the population variance estimate for ScoreA in the KR21 formula.
- A Break variable does not need to be designated in current versions of SPSS Statistics when the aggregation is performed over the full data set. If the reliability analysis was performed within subgroups of the data as defined by a split file variable, then that variable would be the Break variable in the Aggregate procedure. You would not need to turn on the Split File structure when working in the KR21\_info data set.
- All of the steps in the KR21 calculation can be performed in the menu system, or graphic user interface (GUI).

The Aggregate procedure is available under Data->Aggregate.

After running Aggregate, the KR21\_info data set will be listed in the Windows menu of SPSS Statistics and can be activated by clicking that item.

The Compute command operation is available under Transform->Compute Variable. Type the resulting variable (ScoreA) into the Target Variable Box and the transformation expression into the Numeric Expression box.

The IF command operation is also available in the Transform-> Compute Variable dialog by entering the Target Variable and Numeric Expression box and then clicking the IF button. In the "If cases" dialog, click the radio button beside "Include if case satisfies condition" and enter the conditional expression ("(nmissing(item1 to item6) = 0) " in this example)

into the box below that radio button. Click Continue and OK.

Based on the techniques of collecting data above, the researcher gave a pre-test on the first meeting to know the students' vocabulary background knowledge toward the material that they were going to learn. After that the researcher gave treatment to the students on the second meeting. For the experimental group, the researcher gave picture where as the control group, they got a kinds of picture and answer the questions based on the picture given. And, in the last meeting the researcher gave a post-test to the students to know how the teaching of vocabulary using picture is more effective to the Sixth Grade Students of I Elementary School. Finally, the researcher makes analysis from the result of the test to answer the research question and validate his hypothesis.

## 4 RESEARCH RESULTS

This chapter discusses about the result of the descriptive statistics of students' vocabulary mastery. The difference in the effectiveness of picture and conventional teaching vocabulary and testing hypothesis which is considerable as:

### 4.1 Pre-test Score

Table 1: The descriptive Statistics of Students' Pre-test Score.

	N	Minimum	Maximum	Mean	Standard Deviation
Pre-test Exp	30	36	96	84.53	13.925
Pre-test Contr	30	48	100	85.73	10.221
Contr Valid N (listwise)	30				

Table 3: The description analysis of Covariance Dependent Variable: Post-test.

Source	Type III Sum of Square	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power <sup>b</sup>
Corrected Model	4334.223 <sup>a</sup>	2	2167.111	27.188	.000	.488	54.376	1.000
Intercept	983.164	1	983.164	12.335	.001	.178	12.335	.932
Pre-test	3640.623	1	3640.623	45.674	.000	.445	45.674	1.000
Method	859.327	1	859.327	10.781	.002	.159	10.781	.898
Error	4543.377	57	79.708					
Total	434256.000	60						
Corrected Total	8877.600	59						

a. R Squared = .488 (Adjusted R Squared = .470)

b. Computed using alpha = .05

The table of descriptive statistics shows that mean score of experimental group (in this case using picture) is 84.53 (s.d = 13.925) and the control group (in this case without picture) is 85.73 (s.d = 10.221). It mean that, the control group is actually higher than experimental group.

### 4.2 Pre-test Score

There are some points of the description analysis of post-test score.

Table 2: The Descriptive Statistics of Students' Post-test Score.

	N	Minimum	Maximum	Mean	Standard Deviation
Pre-test Exp	30	52	100	87.60	10.627
Pre-test Contr	30	48	100	80.80	13.010
Contr Valid N (listwise)	30				

The table of descriptive statistics of post-test shows that mean score of experimental group (in this case using picture) is 87.60 (s.d = 10.627) and the increase of mean score from pre-test mean score is 3.07 while the mean of control group (in this case without picture) is 82.80 (s.d = 13.010) and the mean score from the pre-test was decreasing 1.93. It means that, the mean of experimental group is actually higher than control group.

### 4.3 The Difference in the Effectiveness of picture and Conventional Teaching in Teaching Vocabulary

Here, some points of the description analysis of covariance.

Based on the table of tests of Between-Subject effects we can see that line the independent variable (in this case teaching method finds an F-value of the effect of teaching method 10.781 and column labeled Sig the value is .002 where it is less than 0.05 (an alternative alpha level). It means that two groups, experimental and control groups differ significantly.

In pre-test line found an F-value of the effect of pre-test 45.674 and column sig, the value is 0.000. This is less than 0.01, therefore the covariate is significant. This value also indicates 44.5% of variance in the dependent variable (partial eta squared of 0.445 multiplied by 100).

The result of students' vocabulary progress could be seen from pre-test and post-test from each group. The computation of control group pre-test and post test scores using test of Between-Subjects Effect showed that there is significant difference between two groups in the post test scores. Meanwhile, the result showed that the students in the experimental group achieve better result in the post test. The improvement was statistical significant if it was compared their pre-test scores. The statistical computation results exhibited a significant fact that picture is effective in improving students' vocabulary mastery.

The computation of mean scores in the experimental showed that the pre-test score was 84.53 and after treatment using picture with 50 vocabulary was given the post test score was 87.60, the improvement reached 3.07. while in the control group the mean of pre-test was 84.73 and after treatment using conventional method (read a text) was given, the post test score was 82.80, it means that the post-test score was decreasing 1.93 from the pre-test.

#### 4.4 Testing Hypothesis

For testing hypothesis, the writer want to know whether  $H_0$  was accepted or rejected. To meet the hypothesis above, the statistical analysis of ancova was applied in this research to decide how far the mean of pre-test score is different from the post test score; both in group itself and between groups with the level of significance of 0.05. The significance of the test was analyzed by using computer program

In table of tests of between-subject effects line teaching method shows that the value of F-value is 10.781 and the significant value is 0.002. Thus, it can be concluded that both of experimental group and control group different significantly. It means that the researcher hypothesis ( $H_1$ ) is accepted and the ( $H_0$ ) is rejected. Thus, it is concluded that using picture is

more effective than conventional method in teaching vocabulary at elementary school.

## 5 CONCLUSIONS

After the researcher gave the pre-test, treatment and post-test to the students, it is concluded that the students who taught using picture have better vocabulary than the students who taught without picture (conventional teaching). But, to reach the purpose of this research, we must give all the vocabularies (the words about countable and uncountable noun) to the students, because it will give influence in students' post-test. So it made the teaching is more effective in teaching vocabulary. They teaching vocabulary using picture will be success if the researcher is required to follow the general specific procedures, such as: specifying the topic, defining the students' group and pairs and the rules to treatment.

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## REFERENCES

- Ary, D., Jacobs, L. C., Sorensen, C., Razavich, A., 2002. *Introduction to Research in Education*, Wadsworth Group. United States of America.
- Brown, H. D., 2004. *Language assessment Principles and Classroom activities*, Pearson Education. Inc. U.S.A.
- Brown, H. D., 2007. *Teaching by principles: an interactive Approach to Language Pedagogy*, San Fransisco State University. U. S. A.
- Gerlach, V. S., Ely, P., 1980. *Teaching and Media: A Systematic Approach*, Prentice Hall. New Jersey.
- Nagaraj, G., 1996. *English Lanuage Teaching: Approaches, Methods, and Technique*, Orient Longman, Ltd. London.
- Suyanto, K. K. E., 2007. *English for Young Learners*, Bumi Aksara. Jakarta.