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# The Effectiveness of Using Visual Dictionary to Teach Vocabulary at the Grade Students 

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#### Abstract

This basic problem comes to the students' low vocabulary mastery, teacher's low creativity in teaching, infectivity of general dictionary to teach vocabulary, teacher's low creativity in teaching, infectivity of vocabulary teaching and learning methods currently applied, students tend to get bored in learning vocabulary because of the use of monotonous methods. This fundamental problem then lead the researchers to do research which goal is to find out in which using visual dictionary more effective in teaching vocabulary for junior high school. By applying quantitative research, the researchers did research in SMPN 36 Purworejo. Employing Class 8 A taught using visual dictionaryand Class 8 C taught using general dictionary, the researchers then give 20 questions of multiple choice test to evaluate the result of teaching vocabulary. The result of this research shows that the mean score of 8 A is 81.96 and the mean of 8 C is 74.24. Then, from the computation of inferential analysis, it shows that the result of $\mathrm{Z}_{\text {value }}(6.98)$ is lower than $\mathrm{Z}_{\text {table }}$ (1.96).From the result, it can be concluded that use of Visual Dictionary in teaching vocabulary skill at the eighth grade is effective.


Keywords: Visual dictionary; Vocabulary skill; Teaching

## 1. Introduction

Teaching English for junior high school gives its own challenge whether in material, classroom management system, and teaching strategy used. The problems can be identified such as the low vocabulary mastery, the teacher uses a general dictionary to teach vocabulary, teacher's low creativity in teaching, infectivity of vocabulary teaching and learning methods currently applied, students tend to get bored in learning vocabulary because of the use of monotonous methods.

In this research, the researchers use visual dictionary in teaching vocabulary for senior junior school. Having purpose of the research to describe the students' vocabulary achievement of the eighth grade and to find out effective or not in teaching vocabulary using visual dictionaryat the eighth grade, this research was taking place in SMPN 36 Purworejo. Having 8 A and 8 C as the subject of the research, the researchers employ 66 students as the sample.

This research was done under the theories of teaching learning, teaching media, visual dictionary and vocabulary. Related to the theories of teaching, Maswan and Muslimin state that teaching is giving lessons to someone (students) by training and giving instructions so that they gain several experiences [1].According to Ladjid in Asmadawati, a learning process can run effectively if all the components that influence each other support, namely 1) students, 2) curriculum, 3) teacher, 4) method, 5) facilities and infrastructure, 6) environment [2]2]. Aunurrahman state that learning is a process carried out by individuals to obtain a whole new change in behavior, as a result of the individual's own experience in interaction with his environment [3].According to Reber in Syah M, quoted by Herawati in terms of the learning process, the process means specific ways or steps that cause some changes to achieve certain results [4]. So, the learning process is the stage of cognitive, affective, and psychomotor behavior changes that occur in students. Shah also said that the changes that have occurred are positive in the sense that they are oriented towards being more advanced than in the previous situation.according to According DePorter in Quantum Learning, there are 3 types of learning style, namely visual, auditory and kinesthetic [5].

Learning media is a tool used to convey learning material that can stimulate the thoughts and willingness of students so that it can help create the learning process [6]-[10]. Arsyad the word media comes from the Latin medius which means "middle", "intermediary", or "introduction" [11]. According to Surantobased on the form of communication media can be grouped as follows: print media, visual media, audio media, and audio-visual media [12]. According to Anderson Ronal H in Asmadawati, 1) Step one: Determine whether the message is instructional or informational [13]. 2) Second step: Determine how to transmit the message, whether this is a medium to help an instructor or a medium that shows the occurrence of independent or group learning without an instructor. 3) Step three: Using diagrams will help define the characteristics of the lesson, and further reduce the number of media choices and guide the teacher to determine the specific media class that is suitable for the instructional purposes. 4) Step four: Determine the most suitable media in the category. 5) Step five: Going back to the media first and then studying the list of characteristics of this medium, as well as its limitations and advantages in the
presentation.Acording toLevie and Lentz in Sanaky,the functions of learning media, namely: attention function, affective function, cognitive function, and the compensatory function [14].

A dictionary is defined as a reference source in print or electronic form containing words usually alphabetically arranged along with information about their forms, pronunciations, functions, etymologies, meanings, and syntactic and idiomatic uses [15]. The differences of dictionary and visual dictionarythese dictionaries have one common thing that they are all text-based and contain only words [16]. Meanwhile, the visual dictionary does not only present vocabulary text, but includes a simple picture of the vocabulary whether it is nouns, adjectives, and verbs so that students understand the meaning of vocabulary more easily and will find it easier to remember the vocabulary because students have a description of the meaning of the vocabulary in the brain memory. The advantage of visual dictionary based on Dwimawanti a visual dictionary does not only contain text and words, but a visual dictionary also contains simple pictures that can turn on students' imagination about the meaning of a vocabulary [17], [18].

Soedjito in Febrismastates vocabulary is: 1) all words contained in one language, 2) the richness of words owned by a speaker, 3) words used in a scientific field, 4) a list of words arranged like a dictionary with brief and practical explanations [19]. According to Febrisma types of vocabulary can be categorized as follows 1) noun, 2) verb, 3) adjective, 4) adverb [20]. Mastery of vocabulary is needed by someone to understand and use the collection of words they have to express thoughts and feelings in various spheres of life such as in language activities. Tarigan states that the quality of a person's language skills depends on the quantity and quality of his vocabulary [21]. The richer the vocabulary a student has, the more likely the student is skilled at language. Vocabulary mastery is the vocabulary or wealth of words that a person controls. Mastery of vocabulary in sufficient numbers is needed to carry out activities to communicate in language.Djiwandono divides vocabulary mastery into two, namely vocabulary mastery that is passivereceptive and active-productive [22].

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In this research, the researchers use visual dictionary in teaching vocabulary for senior junior school. Having purpose of the research to describe the students' vocabulary achievement of the eighth grade and to find out effective or not in teaching vocabulary using visual dictionary at the eighth grade, this research was taking place in SMPN 36 Purworejo. Having 8 A and 8 C as the subject of the research, the researchers employ 66 students as the sample.

## 2. Method

In conducting research, the researchers used quantitative research methods with experimental research design to collect data and to obtain research results. According to Azwar, quantitative research is research that is usually carried out to test a certain hypothesis and emphasize its analysis on numerical data using statistical methods [23]. According to Winarno, the experimental research design aims to reveal the causal relationship between variables by manipulating the independent variables [24]. Furthermore, experiments are research designs that provide the most rigorous and rigorous testing of hypotheses. Although correlational and comparative causal designs can reveal relationships between variables, experimental designs are used specifically to express causal relationships. In conducting the research, the researchers employed two variables namely independent variable (students' vocabulary achievement taught using visual dictionary - X) and dependent variable (students' vocabulary achievement taught using general dictionary - Y).

From total Class 8 that is 192 students, the researchers took sample Class 8 A ( 33 students) and 8 C (33 students) as the subject of the research by using purposive sampling technique. The researchers took those two classes because they have the equal competence in pretest and it has almost the same in total students of the class. In order to get the data, the researchers use test as their instrument consists of 20 multiple choice vocabulary tests and the researchers uses pre-test and post-test (before and after being taught using visual dictionary and general dictionary) to know the students' vocabulary competencies. After getting the data, the researchers then applied descriptive and inferential analysis to test the hypothesis.

## 3. Results and Discussions

1. The students' vocabulary achievement

In the effort of recognizing the students' vocabulary achievement, the researchers has tested the students to answer 20 multiple choice questions proposes. Then, after those students being taught by using visual dictionary and general dictionary, the result can be seen below:

Table 1. The result of vocabulary post-test

| Experiment group (8 A) |  |  | Control group (8 C) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No | Sample | Score | No | Sample | Score |
| 1 | Student 1 | 80 | 1 | Student 1 | 75 |
| 2 | Student 2 | 85 | 2 | Student 2 | 75 |
| 3 | Student 3 | 85 | 3 | Student 3 | 70 |
| 4 | Student 4 | 70 | 4 | Student 4 | 70 |
| 5 | Student 5 | 85 | 5 | Student 5 | 90 |
| 6 | Student 6 | 90 | 6 | Student 6 | 75 |
| 7 | Student 7 | 90 | 7 | Student 7 | 70 |
| 8 | Student 8 | $95$ | 8 | Student 8 | 80 |
| 9 | Student 9 | 85 | 9 | Student 9 | 75 |
| 10 | Student 10 | $85$ | 10 | Student 10 | 80 |
| 11 | Student 11 | 80 | 11 | Student 11 | 50 |
| 12 | Student 12 | $90$ | 12 | Student 12 | 50 |
| 13 | Student 13 | 85 | 13 | Student 13 | 70 |
| 14 | Student 14 | $70$ | 14 | Student 14 | 75 |
| 15 | Student 15 | 90 | 15 | Student 15 | 80 |
| 16 | Student 16 | $85$ | 16 | Student 16 | 90 |
| 17 | Student 17 | 70 | 17 | Student 17 | 80 |
| 18 | Student 18 | $85$ | 18 | Student 18 | 65 |
| 19 | Student 19 | 90 | 19 | Student 19 | 50 |
| 20 | Student 20 | $60$ | 20 | Student 20 | 90 |
| 21 | Student 21 | 80 | 21 | Student 21 | 80 |
| 22 | Student 22 | $80$ | 22 | Student 22 | 80 |
| 23 | Student 23 | 90 | 23 | Student 23 | 75 |
| 24 | Student 24 | $85$ | 24 | Student 24 | 80 |
| 25 | Student 25 | 90 | 25 | Student 25 | 90 |
| 26 | Student 26 | $90$ | 26 | Student 26 | 85 |
| 27 | Student 27 | 90 | 27 | Student 27 | 80 |
| 28 | Student 28 | 85 | 28 | Student 28 | 80 |
| 29 | Student 29 | $70$ | 29 | Student 29 | 80 |
| 30 | Student 30 | $70$ | 30 | Student 30 | 70 |
| 31 | Student 31 | 80 | 31 | Student 31 | 90 |
| 32 | Student 32 | 80 | 32 | Student 32 | 50 |
| 33 | Student 33 | 60 | 33 | Student 33 | 50 |

The result of post-test of experimental and control group is distributed based on the classification of students' achievement by Arikunto [25], It is shown in the following table.

Table 2. The frequency distribution of students' score in post-test

| Interval | Interpretation | Frequency |  | Percentage |  |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  |  | 26 | 16 | $78.78 \%$ | $48.48 \%$ |
|  |  | Experimental | Control | Experimental | Control |
| $80-100$ | Excellent | 5 | 11 | $15.15 \%$ | $33.33 \%$ |
| $66-79$ | Good | 2 | 1 | $6.06 \%$ | $3.03 \%$ |
| $56-65$ | Sufficient | 0 | 5 | $0 \%$ | $15.15 \%$ |
| $40-55$ | Fairly Sufficient | 0 | 0 | $0 \%$ | $0 \%$ |
| $<39$ | Poor | 33 | 33 | $100 \%$ | $100 \%$ |
| Total |  |  |  |  |  |

Chart 1. The result of post-test in experimental and control group


From the table 1 and the chart 1 above, it can be seen that that most of students got the score included in the excellent category $(80-100)$ there are 26 students $(78.78 \%)$ of 8 A class. In the good category $(66-79)$ that are 5 students $(15.15 \%)$ of 8 A class. While, in sufficient category that are 2 students $(6.06 \%)$ of 8 A class. There is no fairly sufficient category in 8 A class. In the excellent category $(80-100)$ there are 16 students $(48.48 \%)$ of 8 C class. In the good category $(66-$ 79) that are 11 students ( $33.33 \%$ ) of 8 C class. While, in sufficient category that is 1 student ( $3.03 \%$ ) of 8 C class. In fairly sufficient category that are 5 students ( $15.15 \%$ ) of 8 C class.
2. The comparison between experiment group and control group

Then, to find out effective or not there are significant differences of students' vocabulary achivement between those taught using visual dictionary and those taught using general dictionary, the reseachers used a series of statistical computation as follows:
a. Descriptive statistic

According to Arifin descriptive statistics are statistics that provide the task of collecting, processing, and analyzing data, then presenting it well [24]. Therefore, descriptive statistics only describe a phenomenon, such as the mean, mode, and median of a particular group. The result of computation can be seen in the table below:

Table 3. The vocabulary result post-test of experimental and control group

| Source | M | Me | Mo | SD | V | R | Max | Min |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Experimental | 81.96 | 85 | 85 | 8.92 | 79 | 35 | 95 | 60 |
| Control | 74.24 | 75 | 80 | 12.25 | 150 | 40 | 90 | 50 |

From the table above, it can be seen that the mean of experimental group is 81.96 and control group is 74.24 . Then, the median and mode of experimental group is 85 . The median of control group is 75 and the mode of control group is 80 . The highest score of experimental group is 95 and control group is 90 . The minimum score of experimental group is 60 and control group is 50.
b. Inferential statistic

This analysis is implemented to find out the comparative study of students' vocabulary achievement between using visual dictionary and general dictionary. Before the researcher did computation to test the hypothesis, she did a computation of pre-requisite test at first and the test are as follows:

1) Test of Normality

The test is intended to decide the distribution of maximum and minimum values as well as the variability of research data. The formula used to do test of normality is Chi Square $\left(\mathrm{X}^{2}\right)$. The result of computation is as follows:

Table 4. The result of normality test for post-test of experimental group

| INTERVAL | $\mathbf{f}_{\mathbf{0}}$ | $\mathbf{f}_{\mathbf{h}}$ | $\mathbf{f}_{\mathbf{0}}-\mathbf{f}_{\mathbf{h}}$ | $\left(\mathbf{f}_{\mathbf{0}}-\mathbf{f}_{\mathbf{h}}\right)^{\mathbf{2}}$ | $\left(\mathbf{f}_{\mathbf{0}}-\right.$ <br> $\left.\mathbf{f}_{\mathbf{h}}\right)^{\mathbf{2}} / \mathbf{f}_{\mathbf{h}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $60-66$ | 2 | 0.89 | 1.11 | 1.23 | 1.38 |
| $67-73$ | 5 | 5 | 0 | 0 | 0 |
| $74-80$ | 6 | 11 | -5 | 25 | 2.27 |
| $81-87$ | 10 | 11 | -1 | 1 | 0.09 |


| $88-94$ | 9 | 5 | 4 | 16 | 3.2 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $95-100$ | 2 | 0.89 | 0.11 | 1.23 | 1.38 |
| SUM | 33 | 33 | 0 | 44.46 | 8.32 |

Based on the computation, the value Chi Square obtained is 8.32 . After being compared wih Chi Square table with the degree of significance $5 \%$ that is 11.07 , it is known that the Chi Square Obtained is higher than Chi Square Table ( $8.32<11.070$ ). It indicates that the data distribution of the students' vocabulary taught by using visual dictionary ( 8 A ) is normal.
By applying the same formula (Chi Square), the researchers then did computation to know the normality of the data of the students' vocabulary achievement taught using general dictionary. The result of the computation is as follows:

Table 5.The result of normality test for post-test of control group

| INTERVAL | $\mathbf{f}_{\mathbf{o}}$ | $\mathbf{f}_{\mathbf{h}}$ | $\mathbf{f}_{\mathbf{o}}-\mathbf{f}_{\mathbf{h}}$ | $\left(\mathbf{f}_{\mathbf{o}}-\mathbf{f}_{\mathbf{h}}\right)^{\mathbf{2}}$ | $\left(\mathbf{f}_{\mathbf{o}-}\right.$ <br> $\left.\mathbf{f}_{\mathbf{h}}\right)^{\mathbf{2}} / \mathbf{f}_{\mathbf{h}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $50-57$ | 5 | 0.89 | 4.11 | 16.89 | 18.97 |
| $58-65$ | 1 | 5 | -4 | 16 | 3.2 |
| $66-73$ | 5 | 11 | 11 | 36 | 3.27 |
| $74-81$ | 16 | 11 | 11 | 25 | 2.27 |
| $82-89$ | 1 | 5 | 5 | 16 | 3.2 |
| $89-96$ | 5 | 0.89 | 0.89 | 16.89 | 18.97 |
| SUM | 33 | 33 | 33 | 126.78 | 49.88 |

From the computation as shown in the table above, the value Chi Square obtained is 49.88 . Then, after being compared wih Chi Square table with the degree of significance $5 \%$ that is 11.07, it is known that the Chi Square Obtained is higher than Chi Square Table (49.88 > 11.07). It indicates that the data distribution of the students' reading achievement taught by using small group discussion (MIPA 6) is abnormal.
Because of the data distribution in the manual computation are abnormal, the researchers enclose the computation SPSS 16.0 using the Shapiro-Wilk formula. The table below will show about SPSS result.

Table 6.Test of normality using SPSS

|  | KolmogrovSmirnova |  | Shapiro Wilk |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Statistic | df | Sig. | Statistic | df | Sig. |
| Post_exp | .117 | 33 | 0.200 | .963 | 33 | .304 |
| Post_ctrl | .212 | 33 | $<0.001$ | .898 | 33 | .005 |

The data could be said normal if the significance value is higher than 0.05 . Then, the data could be said abnormal if the significance value is lower than 0.05 . From the table above, it is known thatthe significance value of experimental group is 0.200 is higher than 0.05 . While, the significance value of control is $<0.001$ is lower than 0.05 . Therefore, it can be conclude that the distribution of the post-test experimental is normal and the post-test of control group is abnormal.
2) Test of Homogeneity

Test of homogeneity is used to measure the obtained score whether it is homogeneous or not.

$$
\begin{aligned}
& \mathrm{F}=\text { the highest variance } \\
& \text { the lowest variance } \\
& \mathrm{F}=\underline{150} \\
& 79 \\
& \mathrm{~F}=1.89
\end{aligned}
$$

From the computation above, the value of F is 1.89 . Then, it is compared to the F table with df numerator $(33-1=32)$ and df denominator $(33-1=32)$. The F table on the significant level $5 \%$ is 3.29 . Because of F obtained is lower than the value of F table $(1.89<3.29)$, it means that the variance of two sample is homogenous. The researcher also calculated the homogeneity test using SPSS as the table below:

Table 7.Test of homogeneity of variance using SPSS

|  | Levene <br> Statistic | df 1 | df 2 | Sig. |
| :--- | :---: | :---: | :---: | :---: |
| Based on Mean | 1.713 | 1 | 64 | .195 |
| Based on Median | 1.893 | 1 | 64 | .174 |
| Based on Median and <br> with adjusted df | 1.893 | 1 | 61.945 | .174 |
| Based on trimmed mean | 1.576 | 1 | 64 | .214 |

From the table above, it shows that ( Sig ) on mean are higher than 0.5 . In the table above, the value of $\operatorname{Sig}(0.195)$ is higher than 0.05 . It means that the data is homogenous.
3) Test of Hypothesis

After knowing the data has abnormal distribution, the researcher uses Mann Whitney U-test as a technique to find out effective or not the hypothesis is accepted. The manual computation is as follows:

Table 8. Getting the rank

| No | Sample | Score | Rank | No. | Sample | Score | Rank |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Student 1 | 80 | 1.5 | 1 | Student 1 | 75 | 1.5 |
| 2 | Student 2 | 85 | 1.5 | 2 | Student 2 | 75 | 1.5 |
| 3 | Student 3 | 85 | 3.5 | 3 | Student 3 | 70 | 3.5 |
| 4 | Student 4 | 70 | 3.5 | 4 | Student 4 | 70 | 3.5 |
| 5 | Student 5 | 85 | 5.5 | 5 | Student 5 | 90 | 5 |
| 6 | Student 6 | 90 | 5.5 | 6 | Student 6 | 75 | 6 |
| 7 | Student 7 | 90 | 7 | 7 | Student 7 | 70 | 7.5 |
| 8 | Student 8 | 95 | 8.5 | 8 | Student 8 | 80 | 7.5 |
| 9 | Student 9 | 85 | 8.5 | 9 | Student 9 | 75 | 9.5 |
| 10 | Student 10 | 85 | 10.5 | 10 | Student 10 | 80 | 9.5 |
| 11 | Student 11 | 80 | 10.5 | 11 | Student 11 | 50 | 11 |
| 12 | Student 12 | 90 | 12.5 | 12 | Student 12 | 50 | 12.5 |
| 13 | Student 13 | 85 | 12.5 | 13 | Student 13 | 70 | 12.5 |
| 14 | Student 14 | 70 | 14.5 | 14 | Student 14 | 75 | 14.5 |
| 15 | Student 15 | 90 | 14.5 | 15 | Student 15 | 80 | 14.5 |
| 16 | Student 16 | 85 | 16.5 | 16 | Student 16 | 90 | 16.5 |
| 17 | Student 17 | 70 | 16.5 | 17 | Student 17 | 80 | 16.5 |
| 18 | Student 18 | 85 | 18.5 | 18 | Student 18 | 65 | 18.5 |
| 19 | Student 19 | 90 | 18.5 | 19 | Student 19 | 50 | 18.5 |
| 20 | Student 20 | 60 | 20.5 | 20 | Student 20 | 90 | 20.5 |
| 21 | Student 21 | 80 | 20.5 | 21 | Student 21 | 80 | 20.5 |
| 22 | Student 22 | 80 | 22.5 | 22 | Student 22 | 80 | 22.5 |
| 23 | Student 23 | 90 | 22.5 | 23 | Student 23 | 75 | 22.5 |
| 24 | Student 24 | 85 | 24.5 | 24 | Student 24 | 80 | 24.5 |
| 25 | Student 25 | 90 | 24.5 | 25 | Student 25 | 90 | 24.5 |
| 26 | Student 26 | 90 | 26.5 | 26 | Student 26 | 85 | 26.5 |
| 27 | Student 27 | 90 | 26.5 | 27 | Student 27 | 80 | 26.5 |
| 28 | Student 28 | 85 | 28.5 | 28 | Student 28 | 80 | 28 |
| 29 | Student 29 | 70 | 28.5 | 29 | Student 29 | 80 | 29.5 |
| 30 | Student 30 | 70 | 30.5 | 30 | Student 30 | 70 | 29.5 |
| 31 | Student 31 | 80 | 30.5 | 31 | Student 31 | 90 | 31.5 |
| 32 | Student 32 | 80 | 32.5 | 32 | Student 32 | 50 | 31.5 |
| 33 | Student 33 | 60 | 32.5 | 33 | Student 33 | 50 | 33 |

Then, after calculating the rank, the next step is finding $U$ which is the process of computation is as follows:

```
\(\mathrm{U} 1=\mathrm{n} 1 \mathrm{n} 2+\frac{\mathrm{n} 1(\mathrm{n} 1+1)}{2}-\mathrm{R} 1\)
\(\mathrm{U} 1=(33) \times(33)+\frac{33(33+1)}{2}-561\)
\(\mathrm{U} 1=1089+\frac{1122}{2}-561\)
\(\mathrm{U} 1=1089+561-561\)
\(\mathrm{U} 1=1089\)
```

Then, calculating the value of z -test with the z formula is:

$$
\begin{aligned}
& \mathrm{Z}=\frac{U-\frac{n 1 . n 2}{2}}{\sqrt{\frac{n 1 . n 2 .(n 1+n 2+1)}{12}}} \\
& \mathrm{Z}=\frac{1089-\frac{33 \times 33}{2}}{\sqrt{\frac{33 \times 33 \times(33+33+1)}{12}}} \\
& \mathrm{Z}=\frac{1089-\frac{1089}{2}}{\sqrt{\frac{1089 \times 67}{12}}} \\
& \mathrm{Z}=\frac{1089-544.5}{\sqrt{\frac{72963}{12}}} \\
& \mathrm{Z}=\frac{544.5}{\sqrt{6080.25}} \\
& \mathrm{Z}=\frac{544.5}{77.97} \\
& \mathrm{Z}=6.98
\end{aligned}
$$

Absolute value $=0.576$
Considering the computation above, the research of z value is 6.98 . To calculate using $\mathrm{u}-$ test, the researcher uses absolute value 6.98 . After found the z value the researcher compares it with z table. The table value in z table, two - tailed with $\mathrm{a}=5 \%$ is 1.96 . The computation shows that z value is higher than z table ( $6.98>1.96$ ). It means that the null hypothesis (Ho) is rejected and the alternative hypothesis (Ha) is accepted. The researcher also encloses the computation of SPSS to make sure that the computation done using manual computation is correct. Below is the result of SPSS computation.

Table 9. Test of hypothesis using SPSS

|  | N | Mean <br> Rank | Sum of <br> Ranks |
| :---: | :---: | :---: | :---: |
| Pre_exp | 33 | 40.24 | 1328.00 |
| Post_ctrl | 33 | 26.76 | 883.00 |
| Total | 66 |  |  |

Test Statistics ${ }^{\text {a }}$

|  | Count |
| :---: | :---: |
| Mann - Whitney U | 322.000 |
| Wilcoxon W | 883.000 |
| Z | -2.902 |
| Asymp. Sig. (2-tailed) | .004 |

From the previous analysis, it shows that with the number of samples n $1=33$ and $n 2=33$, the result of the computation of Mann-Whitney $U$ test is .004 and based on the significance level 0.05 , the value of $z$ table. It can be seen that Mann-Whitney $U$ test is lower than $z$ table $(.004<0.05)$, so the alternative hypothesis is accepted. It means that "The use of Visual Dictionary in teaching vocabulary skill at the eighth grade students at SMPN 36 Purworejo in the academic year of 2020/2021 is effective."

## 4. Conclusion

After doing a series of research from gathering information, teaching the students using visual dictionary and general dictionary, then testing the students after being taught using those two strategies, the researchers come to conclusion that first, seeing from the descriptive analysis as it has been discussed before, it can be seen that the mean score of the students are closely equal that is 81.98 for 8 A and 74.24 for 8 C . Then, as it also be seen in table 3, that maximum score of experimental group is 95 and control group is 90 . Second, from the result of inferential analysis consisting test of normality, test of homogeneity, and test of hypothesis, it can be seen that the data of the students' vocabularyachievementhave abnormal distribution (49.88>11.07) and homogeneous (0.195> 0.05). Because of the data have abnormal distribution, so that the researchers uses Mann-Whitney U Test to test the hypothesis. From the computation, it is known that the Z value is lower than Z table in which (. $004<$ 0.05 ), so the alternative hypothesis is accepted. It means that "The use of Visual Dictionary in teaching
vocabulary skill at the eighth grade students at SMPN 36 Purworejo in the academic year of 2020/2021 is effective."

## 5. References

[1] M. Secret, M. Leisey, S. Lanning, S. Polich, and J. Schaub, "Faculty perceptions of the Scholarship of Teaching and Learning: Definition, activity level and merit considerations at one university," Journal of the Scholarship of Teaching and Learning, vol. 11, no. 3, pp. 1-20, 2011.
[2] E. Rafeedali, "Influence of self concept and emotional maturity on leadership behaviour of secondary schools heads in Kerala, India," European Journal of Education Studies, vol. 3, no. 1, pp. 295-312, 2017, doi: 10.5281/zenodo. 233008.
[3] T. Voss, M. Kunter, and J. Baumert, "[1] T. Voss, M. Kunter, and J. Baumert, "Assessing Teacher Candidates’ General Pedagogical/Psychological Knowledge," J. Educ. Psychol., 2011.Assessing Teacher Candidates’ General Pedagogical/Psychological Knowledge," Journal of Educational Psychology, 2011.
[4] E. Popescu, "Diagnosing students' learning style in an educational hypermedia system," in Cognitive and Emotional Processes in Web-Based Education: Integrating Human Factors and Personalization, 2009, pp. 187-208. doi: 10.4018/978-1-60566-392-0.ch011.
[5] R. L. Oxford, "Language Learning Styles and Strategies : an Overview," Learning, pp. 1-25, 2003.
[6] S. D Santoso and E. Sunjayanto Masykuri, "Does Sony Vegas Platinum 13 Help Students to Understand pragmatic Well?," International Seminar on Recent Language, Literature and Local Cultural Studies (BASA 2018), Nov. 2018.
[7] K. khotimah, E. S. Masykuri, and Istighfarin, "Combining New Technology in ELT to Create Innovation in Student's Learning," presented at the Seminar Nasional Bahasa, Sastra, dan Budaya, Universitas Muhammadiyah Purworejo, Indonesia, 2017.
[8] E. S. Masykuri, "Operating Android by Tapping Google Map Apps to Learn Direction In Vocational School," UNIVERSITAS MUHAMADIYAH PURWOREJO, vol. 1, no. 1, p. 112, Apr. 2013.
[9] N. Mhd Rodzi, J. Amantha Kumar, S. Osman, and E. S. Masykuri, "Exploring Lecturers' Acceptanceof Learning Management Systems in Malaysian Higher Educational Institution," EAI, no. 5, Feb. 2020, doi: dx.doi.org/10.4108/eai.28-9-2019.2291064.
[10] E. Sunjayanto Masykuri and et all, "Integrated Technology And Mutual Participation For Changing Communities Socially, Economically And Religiously," presented at the ICSTI, Indonesia, Oct. 2018. [Online]. Available: https://eudl.eu/doi/10.4108/eai.19-10-2018.2281307
[11] O. Rombot, E. Boeriswati, and M. A. Suparman, "Improving Reading Comprehension Skills of International Elementary School Students through Blended Learning," Al Ibtida: Jurnal Pendidikan Guru MI, vol. 7, no. 1, p. 56, 2020, doi: 10.24235/al.ibtida.snj.v7i1.6045.
[12] N. Anderson, "215A: Developing engaged second language readers," Teaching English as a Second or Foreign Language, 2014.
[13] Y. Basuki, "THE USE OF PEER -ASSESSMENT OF READING ALOUD TO IMPROVE THE ENGLISH DEPARTMENT STUDENTS' MOTIVATION ON PRONUNCIATION CLASS OF STKIP PGRI TRENGGALEK," JURNAL DEWANTARA, 2016, doi: http://journal.stkippgritrenggalek.ac.id/index.php/kid/article/view/52/35.
[14] L. Huang, "Reading Aloud in the Foreign Language Teaching," Asian Social Science, vol. 6, no. 4, 2010, doi: 10.5539/ass.v6n4p148.
[15] H. Zaini, "Strategi Pembelajaran Aktif," Seminar Lokakarya Nasional Pendidikan Biologi FKIP UNS, 2009.
[16] N. Annamalai, R. Manivel, and R. Palanisamy, "Small group discussion: Students perspectives," International Journal of Applied and Basic Medical Research, 2015, doi: 10.4103/2229-516x.162257.
[17] J. C. Richards, Longman Dictionary of Language Teaching and Applied Linguistics. 2013. doi: 10.4324/9781315833835.
[18] E. S. Masykuri, "Three Character Building by Using Comik Wayang," JPSE, vol. 2, no. 2, pp. 1-13.
[19] Ahmed Sanoussi Himeda Al Jawad and S. H. Abosnan, "The Impact of Using Small Group Discussion Technique on Enhancing Students' Performance in Speaking Skill: A Case Study of Benghazi University," International Journal of Linguistics, Literature and Translation (IJLLT), vol. 3, no. 7, pp. 189-198, 2020, doi: 10.32996/ijllt.
[20] Y. Lee and P. A. Ertmer, "Examining the effect of small group discussions and question prompts on vicarious learning outcomes," Journal of Research on Technology in Education, vol. 39, no. 1, pp. 6680, 2006, doi: 10.1080/15391523.2006.10782473.
[21] N. Thotakura and M. Anuradha, "Effectiveness of small group discussion over traditional lecture : a cross sectional comparative study .," IOSR Journal of Research \& Method in Education (IOSR-JRME), vol. 8, no. 4, pp. 21-26, 2018, doi: 10.9790/7388-0804032126.
[22] R. Antoni, "Teaching Speaking Skill Through Small Group Discussion," Journal of Education and Islamic Studies, 2014, doi: http://dx.doi.org/10.24014/al-manar.v5i1.4115.

\[23] C. Kothari, R. Kumar, and O. Uusitalo, Research Methodology: a step-by-step guide for beginners, third edition. 2014. http://196.29.172.66:8080/jspui/bitstream/123456789/2574/1/Research\ Methodology.pdf.
[24] Sugiyono, Metode Penelitian Kombinasi (mixed Methods). 2018.
[25] S. Arikunto, Prosedur Penelitian: Suatu Pendekatan Praktik (Edisi Revisi). 2010. doi: 10.1017/CBO9781107415324.004.

