
Using Visual Dictionary in Improving Students' Vocabulary Achievement

Desi Wulan Suci¹, Aisyah Pratiwi², Dina Novrieta³

¹IAIN Syaikh Abdurrahman Siddik Babel

²IAIN Syaikh Abdurrahman Siddik Babel

³IAIN Syaikh Abdurrahman Siddik Babel

ABSTRACT

Keywords:

Improve

Visual Dictionary

Vocabulary achievement

This study was focused on finding out whether using visual dictionary can improve students' vocabulary achievement or not. The sample of this study was students of a public junior high school in Belinyu, Bangka Belitung province. Based on the result analysis (Paired Sample T-Test), it shows that the mean difference of pre-test and post-test in experimental group was 23.88, while the mean difference of pre-test and post-test in control group was 20.00. In addition, the result of difference analysis in post-test of experimental and control group showed that the value of t obtained was 3.712 which exceeded the critical value of t-table 2.00 (at the significant level $p < 0.05$ in two tailed testing with degree of freedom 61. It means that the null hypothesis was rejected and the research hypothesis was accepted. The result of this study revealed that the post-test scores were better than the pre-test scores of experimental group. It could be seen by comparing their means. The mean of the pre-test scores was (59.00) while the mean of the post-test scores was (82.88). In line with the result, the writer suggests that the Visual Dictionary was one of the effective methods to improve students' enthusiasm in learning English.



This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. ©2019 by author.

Correspondence:

Desi Wulan Suci

Email: desiwulansuci102@gmail.com

Introduction

In order to communicate with others, we need a language as a mean of communication. Without language we cannot communicate. Languages bring all the expressions and feelings to be expressed. The main language used outside of Indonesia is English. It is used to exchange and a mass knowledge, technological know-how, art and culture, and build international contacts. What the fundamentals are from kindergarten through college, English is taught (Nuraeni, 2010). Many elements make low achievement in vocabulary among the students. They originated from both the internal and external elements. The term "inner" refers to qualities such as drive, interest, intelligence, and others that come from within the students themselves. The students' environment includes factors such as their financial situation, the tools they use to learn, and the performance of their teachers, including their instructional techniques (Freeman, 2000).

A various vocabulary enables us to express our ideas precisely in conversation. Language use allows for the growth of vocabulary expertise, and vice versa. Thus, language use allows for the growth of vocabulary expertise, while sector expertise allows for the growth of both. Mastering vocabulary is not easy, but different elements of language are taken into consideration such as; tone and grammar, are taken into consideration. A language's vocab is one of the most critical elements. If we do not understand the language, we cannot speak it well. Not remembering and the way nicely we study grammar, how efficaciously when the foreign language's sound is learned and there are no phrases to specify a limited amount of meanings, verbal exchange in the overseas language simply cannot manifest in any significant way. In different phrases, verbal exchange cannot be carried out without mastery of vocabulary, due to the fact vocabulary is a vital primary detail in communicating.

Teaching vocabulary needs to be very creative and prepared to keep the students away from the negative aspects that affect their ability to acquire it. The teacher should use appropriate instructional materials to prevent the students from getting bored while learning language. This media should pique students' interest in learning new language since it helps teachers achieve academic goals and learning objectives and serves as a tool for controlling students during the teaching-learning process. To conclude, teachers should be more creative in creating ways for teaching English, so the category becomes a lot of active and also the class atmosphere is more well-off as a result of students will learn with fun (Andriani, 2016).

Word Square is a set of word game arranged in a square such that they read same horizontally and vertically. Visual dictionary is a dictionary that is presented in the form of images to convey a word through the image. Vocabulary as "a set of lexemes, including single word, compound words and idiom" (Richards & Schmidt, 2010). "A lexical item, often known as a vocabulary item, can be: a single word; two or three words combined to form a single meaning; a phrase or paragraph made up of multiple words" (Hadfield & Hadfield, 2008). One of the diverse the used of obvious tools in vocabulary instruction. The kind of visible useful resource is the use of still snap shots. Mansourzadeh argues that snap shots are precious aids that convey truthful images inserted into the artificially multinational language school environment. By the use of visible media, instructors can supply statistics to the scholars extra without difficulty and the college students can recognize and get the statistics extra without difficulty too due to the fact the instructors can display what they're speaking approximately and the scholars can see at once what the instructors mean. It approach visible media aids can assist the trainer provide statistics so college students can without difficulty obtain and recognize the statistics supposed via way of means of the teacher (Mansourzadeh, 2009).

This study was focused on using Visual Dictionary in teaching students to improve their vocabulary achievement especially on word classes of noun, verb and adjective in various topics: animal, things, and building, based on the school syllabus.

1. The Concept of Teaching Vocabulary

Vocabulary teaching is one part of learning English which is often discussed as a foreign language. According to Berne & Blachowicz as cited by Susanto in other hand, the result of the study revealed that vocabulary learning becomes troublesome since many teachers are unsure of the most effective method for learning vocabulary and are unsure of how to begin learning vocabulary (Susanto, 2017). Teaching vocabulary is a crucial component of learning a language because vocabulary is the foundation of language. Teachers must find and prepare appropriate techniques to be applied to students in vocabulary learning. A good teacher must prepare various vocabulary learning techniques (Hasibuan & Ansyari, 2007).

Achievement according to Hornby is something achieved or done successfully with the efforts or skills (Hornby, 1995). In line with this statement, Heaton defined Achievement in vocabulary is the consequence of what has been taught and learned in vocabulary-related classes or by people. In short, Vocabulary is the students' capacity to communicate their ideas and thoughts through words (Heaton, 1991). In light of the aforementioned concepts, it can be said that vocabulary achievement is collection of words recognized and understood with a successful effort that have been done by the students. their vocabulary achievement was measured by the vocabulary test and it was indicated by the scores of vocabulary test.

2. The Concept of Visual Dictionary

Visual is a form of non-verbal communication. a form that can attract attention to the sense of sight such as a picture or other illustration. Generally, visuals include pictures, symbols, signs, maps, charts, graphs, diagrams, photos, and models (Aisami, 2015). The sort visuals that are used every day for important communication purpose, such as emergency information card in airplanes or highway sign that warn of dangerous curves of intersection (Smaldino et al., 2007). From the explanation above, it can be concluded that the visual is a communication tools that appeal to the sense of sight through illustration.

Visual illustrations can help students understand vocabulary in students' vocabulary achievement. Visuals will help people communicate their ideas more effectively and accurately to others. Combining abilities with images, words, and sounds can generate feelings, alter attitudes, and inspire behavior. The combination has been shown to be retained by viewers significantly longer than when simply listened to or read. Students will more easily recognize, remember, and imagine objects into their minds by visualizing through a visual dictionary (Wigan, 2017). In other words, visual illustrations can more easily help students to remember the given vocabulary than just reading in the text form. Because by looking at the visual illustration they can imagine the real objects they see.

Visual dictionary is a dictionary that is presented in the form of images to convey a word through the image. Visual dictionaries are usually different from ordinary dictionaries which are arranged alphabetically, visual dictionaries are arranged by theme. Each theme is labeled to identify each component of the item in

question. That is, the visual dictionary contains definitions and explanations visually.

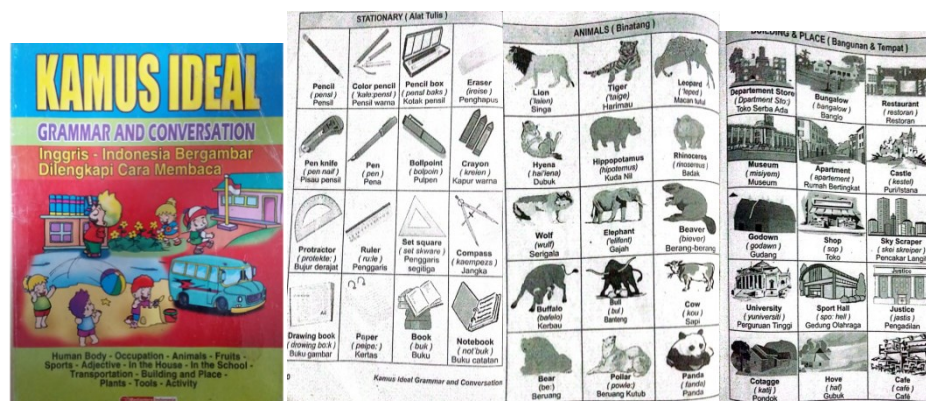


Figure 1. Examples of Visual Dictionary

Method

The researcher adopted a quantitative method for this study. It refers to something that can be expressed in quantity or countable things. Utilizing numerical approaches like statistics, percentages, and other numerical methods, this form of research involves the systematic experimental analysis of observable events (Khotari, 2004). A quasi-experimental design is an extension of a using a true-experimental design, the experimental group and control group are not chosen at random (Creswell, 2012). The study was conducted using an almost experimental layout. Specifically, an experimental group design with uneven pretest and post-control groups, and researcher were taught using a visual dictionary. According to Creswell, the design might be characterized as follows (Creswell, 2012):

$$\begin{array}{r} O1 \ X \ O2 \\ \hline O3 \ O4 \end{array}$$

Where:

- : Dash lines present the experimental and control group that have not been equated by randomization.
- O1 : the pre-test of experimental group.
- O2 : the post-test of experimental group.
- O3 : the pre-test of control group.
- O4 : the post-test of control group.
- X : the treatment for experimental group.

From the study design described above, both the experimental and control groups received a pretest. Following the pretest, the experimental group received the treatment. The researcher also taught a control group, but did not give them treatment for teaching vocabulary. After the treatment period, the researcher gave both groups post-tests.

Researcher conducted this study for twelve sessions at a public junior high school in Belinyu. The procedures in this research are as follows; first, Pre-testing was done by the researcher in both the experimental and control groups. Next, the researcher tutored both groups for 2 x 40 minutes lasting each. The whole meetings were 12 meetings. It consists of 10 meetings for the teaching and learning process and 2 meetings for the pre- and post-test. The researcher then applied the visual dictionary for ten meetings. The study's experimental group received extra care from the researcher using visual dictionary. The control group likewise received instructions from the researcher by using non visual dictionary in teaching vocabulary. After that, the researcher then gave both groups a post-test.

Sample of Study

In this study, researchers used a non-probabilistic sampling technique. In nonprobability sampling, this

means that researchers select samples based on their abilities, characteristics, and suitability for research. Her one type of non-probabilistic sampling was intentional sampling to conduct research. Directed sampling was a method of sampling in which the sample was taken into account (Arikunto, 2014).

The researcher took into account a few factors when selecting the study's sample; the first was from the interview English teacher of class VII. The teacher said that, they had difficulty remembering the vocabulary they had learned, they also had difficulty in distinguishing part of speech. Second, from the preliminary study conducted at the beginning of this study, the researcher gave multiple choices as a preliminary test. As a result, VII A got the lowest score compared to class VII 2. Class VII A served as the experimental group for the study, while Class VII B served as the control group. Table 2 below contains an example of this research.

Tabel 1. The Sample of Study

No	Class	Class	Men	Women	Sample
1	The Experimental Group	VII A	13	19	32
2	The Control Group	VII B	15	16	31

Source: SMP Negeri 2 Belinyu

Research Instrument

In this study, researchers used pretests and posttests. After using the visual dictionary as a teaching tool, a pre-test was given to gauge the students' vocabulary ability. The study used two types of her tests: two tests: one before and one after. Before teaching the learning process, a pre-test was given, and after teaching the learning process, a post-test was given. These tests measured how well students could improve their vocabulary. Researchers used multiple-choice because it is one of the most useful of all types of objective elements that can be constructed and is easy to evaluate and manage. The test consists of 30 multiple-choice questions. The researcher used the theme of animals, objects and buildings. Then the test results were analyzed by using t-test.

Results and Discussions

Statistical Analysis

a. Statistical Analysis of the Experimental Group

Table 2
Paired Samples Statistics in Experimental Group

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Pre-Test	59.00	32	15.408	2.724
Post-Test	82.88	32	6.852	1.211

Based on the above paired-sample statistics, the experimental group had a pre-test mean of 59.00, a pre-test standard deviation of 15.408, and a mean error of 2.724. The pot test had a mean of 82.88, while the post-test had a standard deviation of 6.852 and a mean standard error of 1.211.

Table 3
Paired Samples Correlations in Experimental Group

	N	Correlation	Sig.
Pair 1 Pre-Test & Post-Test	32	.155	.396

The paired-sample correlations in Table 4.4 revealed that for the experimental group, the correlation between the pre-test and post-test was 0.155, with a significant result of 0.396, higher at a significance value of 0.05. In the experimental group, there was no discernible link between the pre-test and post-test.

Table 4
Paired Samples Test in experimental Group

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Pre-Test Post-Test	-23.875	15.862	2.804	-29.594	-18.156	-8.515	31	.000

Based on the paired-samples test table above, the paired difference is 23.875 with a mean of 23.875, a standard deviation of 15.862, a mean standard error of 2.804, a t-conserved 8.515, 31 degrees of freedom, and a significant (2-tailed) was 0.000. The significance (2-tailed) of 0.000 was lower than the calculated significance level of 0.05, so we could conclude that there was a significant difference in the vocabulary skills of the students before and after implementing the visual dictionary in the experiment.

b. The Statistical Analysis of Pre-Test and Post-Test in Control Group.

Table 5
Paired Samples Statistics in Control Group

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Pre-Test	54.32	31	16.678	2.995
Post-Test	74.32	31	10.968	1.970

Based on the above paired sample statistics, the control group had a pretest mean of 54.32, a pretest standard deviation of 16.678, and a mean pretest standard error of 2.995. The post-test mean was 74.32, but the post-test standard deviation was 10.968 and the mean standard error was 1.970.

Table 6
Paired Samples Correlations in Control Group

The sample

	N	Correlation	Sig.
Pair 1 Pre-Test & Post-Test	31	.328	.072

paired

correlations in Table 4.7 showed that the correlation between pre-test and post-test in the control group was 0.328, with a significant result of 0.072, higher than calculated with a significance value of 0.05. Researcher found no significant correlation between pretest and posttest in the control group.

Table 7
Paired Samples Test in Control Group

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Pre-Test - Post-Test	-20.000	16.685	2.997	-26.120	-13.880	-6.674	30	.000

Based on the paired sample table test above, the control group had a pre-test and post-test mean of 20,000, a standard deviation of 16,685, a standard error of the mean of 2,997, and a t-conserved of 6,674. The degrees of freedom were 30 and the significance (2-tailed) was 0.000. Then the significance (2-tailed) of 0.000 was lower than calculated at the significance level of 0.05, allowing researcher to conclude that there was progress between the pre-test and the post-test in vocabulary achievement who taught without Visual Dictionary.

c. The Statistical Analysis of Students' Pre-Test between Experimental and Control Group.

Table 8
Group Statistics Independent Sample t-test in Pre-test

Group		N	Mean	Std. Deviation	Std. Error Mean
Score	Pre Experimental Group	32	59.00	15.408	2.724
	Pre Control Group	31	54.32	16.678	2.995

Table 4.9 showed the difference analysis of student pretests between the control and experimental groups. In the experimental group, students had a pretest mean of 59.00, a standard deviation of 15.408, and a mean standard error of 2.724. In the control group, students had a pretest mean of 53.32, a standard deviation of 16.678, and a standard error of the mean of 2.995.

Table 9
Independent Samples t-test in Pre-test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Score	Equal variances assumed	.060	.807	1.157	61	.252	4.677	4.044	-3.408	12.763
	Equal variances not assumed			1.155	60.255	.253	4.677	4.049	-3.421	12.775

The results of an independent sample t-test were displayed in table 4.10; the degree of freedom was 61, the significant (2-tailed) value was .252, the t-obtained value was 1.157, and the mean difference in student pre-test scores between the experimental and control groups was 4.677. The computation with level significant 0.05 and t-obtained 1.155 was lower than the essential value of t-table 2.00 because the significant (2-tailed) was .253, greater. Therefore, it can be said that there were no appreciable differences between the experimental group and the control group in the students' pre-test results.

d. The Statistical Analysis of Students' Post-Test between Experimental and Control Group

Table 10
Group Statistics Independent Sample t-test in Post-test

Group	N	Mean	Std. Deviation	Std. Error Mean
Score Post Experimental Group	32	82.81	6.756	1.194
Post Control Group	31	74.32	10.968	1.970

The student post-test difference analysis for the experimental and control groups was displayed in Table 4.11. The mean for the experimental group was 82.81, with a standard deviation of 6.756 and a mean standard error of 1.194. The average for the control group was 74.32, with a standard deviation of 10.968 and a mean error of 1.970.

Table 11
Independent Samples t-test in Post-test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Score	5.988	.017	3.712	61	.000	8.490	2.287	3.917	13.063
Equal variances assumed									
Equal variances not assumed			3.685	49.619	.001	8.490	2.304	3.862	13.118

Based on the independent sample tests in Table 4.12 above, researcher found that the mean post-test difference for students between the experimental and control groups was 8.490 with a standard error difference of 2.287. Then the significance (2-tailed) was 0.000, the t-conserved was 3.712, the critical value of the t-table was 2.00, and the degrees of freedom were 61. The significance (2-tailed) is 0.000, which is lower than calculated. The r-table obtained at Level Significant 0.05 is 3.685, confirming that the experimental and control groups' post-test results for the students varied significantly. From this explanation, the study's findings revealed a considerable difference between the students it taught. with a visual dictionary and those taught without a visual dictionary. As a result, the null hypothesis (Ho) was rejected and the alternative hypothesis (Ha) was accepted.

e. The Comparison between Experimental Group and Control Group

Table 12
Comparison between Experimental Group and Control Group

Group	Highest Pre-Score	Highest Post-Score	Pre-mean	Post-Mean
Experimental	92	94	59.00	82.88
Control	84	88	54.32	74.32

Table 13 compares the two groups to highlight the differences between the experimental and control groups. The experimental group's maximum pretest score was 92 while the control group's maximum pretest score was 84. The experimental group's maximum post-test score was 94 while the control group's maximum post-test score was 88. The experimental group's pre-test mean was 59.00, while the control group's pre-test mean was 54.32. The experimental group's post-test mean was 82.88, while the control group's post-test mean was 74.32. This table proved that there was a substantial difference between the experimental group and the control group, with the mean value of the post-test of the control group.

Based on test results, students who were taught using a visual dictionary significantly improved on their vocabulary compared to students who were not. A t-test analysis revealed a significant difference in the experimental group between before and after therapy. The experimental group's pretest mean was 59.00, while the control group's pretest mean was 54.32. The mean posttest in the control group was 72.32, whereas the mean posttest in the experimental group was 82.88. We discovered that the mean post-test values for the experimental group were greater than the mean post-test values for the control group. The researcher's hypothesis (Ha) was therefore accepted, while the null hypothesis (Ho) was rejected. The researcher came to

the conclusion that there were notable variations between the experimental and control groups in the teaching and learning of using a visual dictionary. In other words, the student's vocabulary increased when they used visual dictionaries to describe things, animals, and public spaces.

The post-test mean for the experimental group was greater than the post-test mean for the control group. As a result, in the post-test, the control group's mean was lower than the experimental group's. It occurred in the control group due to several factors:

- a. Students do not understand what is explained by the teacher because students are noisy this causes students to become unfocused.
- b. During the learning process, students pay less attention to the teacher.
- c. They find it difficult to remember vocabulary that has been taught by the teacher.

Conclusions

Based on the observation sheet, students shared what they get and know about the information from the presented images. Visual dictionaries also increase students' self-confidence and motivation in learning vocabulary achievement. Visual dictionary is an interesting learning media. It turns out that most students are interested in participating in the learning process with the help of a visual dictionary. This was manifested in their presence, attention, interaction and very good cooperation in the process of teaching and learning.

According to the independent-samples t-test analytical comparisons, the experimental group's students outperformed the control group in terms of test scores (Table 12). The experimental group's mean post-test score was 83.88, while the control group's was 74.32. As a result, it was determined that the null hypothesis was incorrect. This indicates that there was a substantial difference in student performance between these two groups of hers on the reading comprehension test. In summary, applying visual dictionaries was an effective technique to increase students' vocabulary mastery.

References

- Aisami, R. S. (2015). Learning Styles and Visual Literacy for Learning and Performance. *Procedia - Social and Behavioral Sciences*, 176, 538–545. <https://doi.org/10.1016/j.sbspro.2015.01.508>
- Andriani, R. (2016). Improving Students' Vocabulary Mastery using Interactive Multimedia. *ELT-Lectura*, 3(1), 13–18. <https://doi.org/10.31849/elt-lectura.v3i1.471>
- Arikunto, S. (2014). *Prosedur Penelitian Suatu Pendekatan Praktik*. Rineka Cipta.
- Creswell, J. W. (2012). *Educational Research*. Pearson Education Inc.
- Freeman, D. L. (2000). *Techniques and Principles in Language Teaching*. Oxford University Press.
- Hadfield, J., & Hadfield, C. (2008). *Introduction to Teaching English*. Oxford University Press.
- Hasibuan, K., & Ansyari, M. F. (2007). *Teaching English as A Foreign Language (TEFL)*. Alaf Riau Graha UNSRI Press.
- Heaton, J. (1991). *A Functional Approach to Vocabulary*. Longman.
- Hornby, A. S. (1995). *Oxford Advanced Learners Dictionary of Current English*. Oxford University Press.
- Khotari, C. . (2004). *Research Methodology Method & Techniques*. New Age International Publishers.
- Mansourzadeh, N. (2009). A Comparative Study of Teaching Vocabulary through Pictures and Audio-visual Aids to Young Iranian EFL Learners A Comparative Study of Teaching Vocabulary through Pictures and Audio-visual Aids. *Journal of Elementary Education*, 24(1), 47–59.
- Nuraeni, E. (2010). *Pintar Bahasa Indonesia*. PT Wahyu Media.
- Richards, J. C., & Schmidt, R. (2010). *Longman Dictionary Language Teaching & Applied Linguistics (Fourth*

Ed). Longman.

Smaldino, S. E., Lowther, D. L., & Russel, J. D. (2007). *Instructional Technology and Media for Learning*. Merrill Prentice Hall.

Susanto, A. (2017). The Teaching of Vocabulary: A Perspective. *Jurnal Kata*, 1(2).

Wigan, M. (2017). The Visual Dictionary of Illustration. In *The Visual Dictionary of Illustration*. AVA Publishing SA. <https://doi.org/10.5040/9781474293754>