PICTURE WORD INDUCTIVE MODEL EFFECTIVE RESEARCH AS THE MEDIA FOR INCREASING STUDENTS' WRITING AILITY IN DESCRIPTIVE TEXT

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Abstract. Tujuan penelitian ini adalah untuk mengetahui apakah siswa yang diajar dengan *picture word inductive model* memiliki keterampilan menulis teks deskriptif lebih baik dari pada siswa yang diajar dengan gambar biasa. Jenis penelitian ini adalah penelitian eks5perimen semu; nonequivalent control group pre-posttest design. Sampel penelitian adalah kelas VIII.1 dan VIII.2. Kelas VIII.1 merupakan kelas control yang diajar dengan menggunakan picture biasa sedangkan kelas VIII.2 merupakan kelas experimen yang diajar dengan menggunakan *picture word inductive model*. Instrumen yang digunakan untuk mengumpulkan data penelitian adalah tes menulis teks deskriptif. Data dianalisis dengan menggunakan independent t-test. Temuan menunjukkan bahwa siswa yang diajar dengan *picture word inductive model* mempunyai keterampilan menulis teks deskriptif lebih besar daripada siswa yang diajar dengan gambar biasa.

Kata kunci: picture word inductive model, picture, writing skill, descriptif text.

Introduction

Writing is a source of information. It is a necessity for the most of people. They seek information based on their respective fields. For example in field of education, students can get more information in education books, magazines, and articles to finish their task. The other example is in class room, students should read a text to get information and help them to answer some questions, student also be able to get information in instruction, examination test, and they also answer some questions in writing. Even they also borrow some books to get other important information about their lesson.

In reality, writing a simple descriptive text is not easy, even student think that it is more difficult subject. It may be caused by some problems, base the writer's experienced when the writer is doing observation, the result of interview to student that writing lesson has been seen as boring, tiring, and difficult subject for students. As beginner writing is difficult because they do not understanding when to start it, lack vocabularies, students feel afraid to write because they think that their written is wrong. Added written and spoken form is different. It is make students more difficult to write. In writing need idea and imagination to help it. But, it is not easy for beginner. In other words, students think that writing is not interesting lesson. Actually writing makes so many difficulties not only for students but also to the teacher. It may be happened because they have lack of writing skill.

One of several problems above, there is one trouble appear often. That is lack vocabulary. Vocabulary is basic to make sentences. Whereas sentence is consist of well ordered words and have meaning. It is real that vocabulary is basic to produce sentence,

because without sufficient vocabulary, sentences can never construct. And sentences are basic to make a simple text.

Vocabulary is as key word to construct a sentence. In this case, students are able to memorize the words in native language to foreign language. But in English have lot of vocabularies, as the result students need certain way to able improve their ability. If the students have sufficient vocabulary, they will make sentence is easier.

To face the problem above, Picture Word Inductive Model can be used to teach descriptive text. It consist of picture which is given keyword to know what to describe. The picture help the students to memorize the key word, and help them to identify what they have seen easily. So, the student write a descriptive text through see the picture, find out key words, read it, after that develop the word to be sentence. According to the problem of the research above, the purpose of this research is to know whether Picture Word Inductive Model improve on students writing ability in descriptive text at SMP N 5 Takengon

Methodology

The type of this research was quasi-experimental research with nonequivalent control group pre-post test design. According to Christensen (1988:231), nonequivalent control group pre-post test design is one of quasi experimental research types that discriminated research design between experimental and control class. It means that treatment only done in experimental class while control class is taught as usual. Meanwhile, Gay and Airasian (2000: 367) say "quasi-experimental research is one of types of research that can test hypothesis to establish relationship cause and effect". It means that quasi-experimental research is a research that aimed to investigate cause and effect of the research variable, observes effect of treatments, and measure hypothesis. To know the effect of variable, the researcher gave treatments only in experimental class using picture word inductive model animated and taught the students of control class as usual using picture.

The subjects of this research were 30 students that consisted of 15 students in experimental class and 15 students in control class. The data were gathered from writing test. The form of test was individual writing descriptive. The instrument of this research was writing test. The form of test was individual writing descriptive. The researcher gave the test in experimental and control class. She conducted pre-test and post-test for both of classes. Pre-test aimed to know students' speaking skill of narrative text generally and Post-test aimed to know students' speaking skill of narrative text after treatments. In this research, the researcher focused on content validity. It was appropriated with Bachman's Theory (1990:40). He states that the test has content validity if the test design measured what should be measured in teaching learning process reflect to syllabus or instructional program. Oshima and Hogue (2007) explained the scoring rubric for paragraph as bellow.

Table 1. Scoring rubric for paragraph

	Maximum Score	Actual Score
Format-5 points		
There is a title.	1	…
The title is centered.	1	…
The first line in indented.	1	…
There are margins on both sides	1	…
The paragraph is double-spaced	1	…
Total	5	…
Punctuation and Mecanism-5 points		
There is a period after every sentence.	1	…
Capital letters are used correctly.	1	…
The spelling is correct.	1	…
Commas are used correctly.	2	…
Total	5	…
Content-20 points		
The paragraph fits the assignment.	5	…
The paragraph is interesting to read.	5	…
The paragraph shows that the writer used care and thought.	10	…
Total	20	…
Organization-35 points		
The paragraph begins with a topic sentence that has both a topic and a controlling idea.	10	…
The paragraph contains several specific and factual supporting sentences that explain or prove the topic sentence, including at least one example.	20	…
The paragraph ends with an appropriate concluding sentence.	5	…
		…
Total	35	
Grammar and Sentence Structure-35 points		
Estimate a grammar and sentence structure score.	35	
Grand Total	100	

In other word a rubric is a measurement tool that describes the criteria against which a performance, behavior, or product is compared and measures. Rubrics list the criteria established for a particular task and the levels of achievement associated with each criterion. These are often developed in the form of a matrix. To each of criterion is needed scoring. Based on Heaton scoring a rubric of writing as follow:

Table 2. Rubric for intermediate level learners[1]

18-20	Excellent	Natural English, minimal errors, complete

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[1] JB Heaton. *Writing English Language Test.* (London: Longman Group, 1998) p.145

		realization of the task set.	
16-17	Very good	Good vocabulary and structure, above the simple sentence level. Errors non-basic.	
12-15	Good	Simple but accurate realization of task. Sufficient naturalness, not many errors.	
8-11	Pass	Reasonably correct if awkward OR Natural treatment of subject with some serious errors.	
5-7	Weak	Vocabulary and grammar inadequate for the task set.	
0-4	Very poor	Incoherent. Errors showing lack of basic knowledge of English.	

Findings and Discussions

The pretest was intended to detect the basic writing skill of the students and it was given at the beginning stage. On the other word the post test was given after the treatment was applied to the students. Both experimental class and control class asked to write descriptive text. The experimental class unlike the control class was provided with make Picture Word Inductive Model. When the classes finished the tests, the researcher processed to collect and score it. The result of pre test and post test both of experimental class and control class as follows:

Table 3. The Score of Pre Test and Post Test of Experimental Class

No	Name	Pre Test	Post Test
		(x_1)	(x_2)
1	A -1	33	51
2	A -2	30	70
3	A -3	74	83
4	A -4	67	71
5	A -5	62	81
6	A -6	28	36
7	A -7	67	75
8	A -8	47	73
9	A -9	67	89
10	A -10	64	88
11	A -11	57	52
12	A -12	63	68
13	A -13	86	92
14	A -14	37	68
15	A -15	13	54
Total		795	1051
Average		53	70.06667
Min		13	36
Max		86	92

Based on the table above, the score of pre test is 795 and post test is 1051. From the result of pre test and post test in experimental class, in the post test that almost student got very well score than in pre test. The results of pre test and post test and control class are as follows:

Table 4. The Score of Pre Test and Post Test of Control Class

No	Name	Pre- Test	Post-Test
		(y_1)	(y_2)
1	B -1	65	50
2	B -2	62	67
3	B -3	46	51
4	B -4	37	48
5	B -5	75	71
6	B -6	63	67
7	B -7	73	75
8	B -8	65	56
9	B -9	62	64
10	B -10	49	70
11	B -11	57	60
12	B -12	50	65
13	B -13	74	64
14	B -14	59	70
15	B -15	64	73
Total		901	951
Average		60.06667	63.4
Min		37	48
Max		75	75

Based on the table above, the score of pre test is 901 and post test is 951. The result of pre test and pos test was not good, because just few of student in control class got very well score than in pre test. After observing the result of pre test and post test, the researcher analyzed the data by using t-test formula. To find out the differences between the classes, the researcher used a comparative analysis technique between the two classes by applying the test formula as follow:

Table 5. The Differences Score of Pre-Test and Post-Test of Experimental Class

No	Name	Pre Test	Post Test	Deviation	Square Deviation
		(x_1)	(x_2)	(X)	(X^2)

1	A -1	33	51	18	324
2	A -2	30	70	40	1600
3	A -3	74	83	9	81
4	A -4	67	71	4	16
5	A -5	62	81	19	361
6	A -6	28	36	8	64
7	A -7	67	75	8	64
8	A -8	47	73	26	676
9	A -9	67	89	22	484
10	A -10	64	88	24	576
11	A -11	57	52	-5	25
12	A -12	63	68	5	25
13	A -13	86	92	6	36
14	A -14	37	68	31	961
15	A -15	13	54	41	1681
Total		795	1051	256	6974
Average		53	70.06667		
Min		13	36		
Max		86	92		

From the data above, the result of pre test is 795 with the mean is 53 and post test is 1051 with mean is 70,067. While for the deviation is 256 and the square deviation about 6974. This data can be analyzed in the form formula bellow to know the standard deviation score in experimental class. The deference score of pre test and post test in control class as follow:

Table 2.4 The Differences Score of Pre-Test and Post-Test of Control Class

No	Name	Pre- Test	Post-Test	Deviation	Square Deviation
		(Y_1)	(Y_2)	(Y)	(Y^2)
1	B -1	65	50	-15	225
2	B -2	62	67	5	25
3	B -3	46	51	5	25
4	B -4	37	48	11	121
5	B -5	75	71	-4	16
6	B -6	63	67	4	16
7	B -7	73	75	2	4
8	B -8	65	56	-9	81
9	B -9	62	64	2	4
10	B -10	49	70	22	484
11	B -11	57	60	3	9
12	B -12	50	65	15	225
13	B -13	74	64	-10	100

14	B -14	59	70	11	121
15	B -15	64	73	9	81
Total		901	951	51	1537
Average		60.06667	63.4		
Min		37	48		
Max		75	75		

Based on the data above, the result of pre test is 901 with the mean is 60,067 and post test is 951 with the mean is 63,4. While for deviation is 51. The amount of square deviation is 1537. The formula below was used to know the standard deviation score in experimental class. Data analyzed:

$$Mx = \frac{\sum x}{Nx} = \frac{256}{15} = 17,07$$
$$X^2 = \sum x^2 - \frac{(\sum x)^2}{Nx}$$
$$X^2 = 6974 - \frac{(256)^2}{15}$$
$$X^2 = 6974 - \frac{65536}{15}$$

$$X^2 = 6974 - 4369,07$$

$$X^2 = 2604,93$$

Whereas the formula bellow was used to know the standard deviation score in control class. Data analyzed:

$$M_Y = \frac{\sum y}{N_Y} = \frac{51}{15} = 3,4$$
$$Y^2 = \sum Y^2 - \frac{(\sum Y)^2}{N_Y}$$
$$Y^2 = 1537 - \frac{(51)^2}{15}$$
$$Y^2 = 1537 - \frac{2601}{15}$$
$$Y^2 = 1537 - 173,4$$
$$Y^2 = 1363,6$$

From t he data analyze above, it is obtained that:

Mx	(Mean of experimental class)	= 17,07
X^2	(Deviation score of experimental class)	= 2604,07
Nx	(The sample of experimental class)	= 15
My	(Mean of control class)	= 3,4
Y^2	(Deviation of control class)	= 1363,6
Ny	(The sample of control class)	= 15

In data analyzed, the researcher used t-test because this is a formula which use to testing two different mean. Meanwhile in the research there are two different classes, they are experimental class and control class and each class have different mean value. Experimental research design start with develop hypothesis in cause change in the sample.

The formula for computing the t-test is as follows:

$$t = \frac{M_X - M_Y}{\sqrt{\left[\frac{X^2 + Y^2}{N_X + N_Y - 2}\right]\left[\frac{1}{N_X} + \frac{1}{N_Y}\right]}}$$

$$t = \frac{17,07 - 3,4}{\sqrt{\left[\frac{2604,93 + 1363,6}{15 + 15 - 2}\right]\left[\frac{1}{15} + \frac{1}{15}\right]}}$$

$$t = \frac{13,67}{\sqrt{\left[\frac{3968,53}{28}\right]\left[\frac{2}{15}\right]}}$$

$$t = \frac{13,67}{\sqrt{[141,73][0,13]}}$$

$$t = \frac{13,67}{\sqrt{18,42}}$$

$$t = \frac{13,67}{4,3}$$

$$t = 3,17$$

Based on the researcher observation during the process of teaching to improve students' writing descriptive text using Picture Word Inductive Model, from the result of the research, the researcher found that by applying Picture Word Inductive Model to the student can give effect students' writing descriptive text. It can be seen from the result of pre test and post test in experimental and control class. Furthermore the result of t-test is 3,17. It can be concluded that there was any significant different in the achievement between the students who were taught using Picture Word Inductive Model and without using it.

Testing Hypothesis

Hypothesis is temporary of statement about something that useful in research to find the true statement that still feebly of truth. The researcher formulated hypothesis of this research as follow:

Ha　　　　　: Picture Word Inductive Model can improve Students' Writing ability in descriptive text At SMP N 5 Takengon.

Ho　　　　　: Picture Word Inductive Model do not improve Students' Writing ability in descriptive text at SMP N 5 Takengon.

Testing criteria:
If $t_{obs} > t_{tab}$ so H_0 rejected or H_a received, with $\alpha = 0,05$
If $t_{obs} \leq t_{tab}$ so H_0 received or H_a rejected, with $\alpha = 0,05$

The proving of hypothesis, it is important to finding degree of freedom (df) by the following formula.

$df = n_1 + n_2 - 2$
$df = 15 + 15 - 2$
$df = 30 - 2$
$df = 28$

Degree of freedom from 28 in significant level 0,05 is 1,701. It can be seen from the table of value degree of significance of 0,05. Based on the formula above, the result of statistic calculating indicated that value of t_{obs} was 3,17 and value of *df* was 28 on the of significant of 0,05 was 1,701. Comparing the t_{tab} with value of the degree of freedom, the result was 3,17 > 1,701. So it can be concluded that "Picture Word Inductive Model can improve students' writing ability in descriptive text At SMP N 5 Takengon".

Conclusion

Based on the result of observation, the researcher found out the use of Picture Word Inductive Model could improve students' writing descriptive text ability. By using Picture Word Inductive Model, the students can improve their writing in choosing the correct vocabularies and the organization of the text. The picture helped them to collect more vocabularies and determine the suitable words to describe the picture on realty. Furthermore t_{obs} was higher than t_{tab} (3,17 > 1,701). It means that H_a is received.

In conclusion, Picture Word Inductive Model could improve students' ability in writing descriptive text. It is also encourage the students to be more interested in teaching learning process. The students actively and motivated in doing the lesson. Finally, the researched concluded that using Picture Word Inductive Model can improve students' writing ability in descriptive text at SMPN 5 Takengon.

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