



## PENERBITAN ARTIKEL ILMIAH MAHASISWA

Universitas Muhammadiyah Ponorogo

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### BASIC QUESTIONING WITH PICTURE IN WRITING CLASS: IS IT EFFECTIVE?

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#### **Abstract**

*This research was carried out to measure whether using basic questioning with picture is effective in teaching writing. The research design used in this research was experimental research which consisted of two groups, experimental and control group. The sample of this research were X IPA1 as the experimental group which consisted of 32 students and X IPA2 as the control group which consisted of 30 students. The experimental group was taught by using basic questioning with picture while the control group was not taught by using basic questioning with picture, it was taught as usual or lecturing only. The instrument used to collect data was test. The test was writing test which was given in pre test and post test both two groups. The assessment of the result of writing test was focused on the five elements of writing (content, organization, vocabulary, language use, and mechanic). The technique to analyze the data used t-test formula. Two groups were compared. The result of statistical hypothesis on significance  $\alpha=0.05$  showed  $t_{test}$  (2.91) was higher than  $t_{table}$  (2.00). It means that, there was significant difference between the students who were taught by using basic questioning with picture and the students who were not taught by using basic questioning with picture in teaching writing. From the explanation above, it can be concluded that the use of basic questioning with picture is effective in teaching writing of the tenth year students of SMA Muhammadiyah 1 Ponorogo in Academic Year 2016/2017.*

**Keywords :** basic questioning, picture, writing skill

#### **Abstrak**

*Penelitian ini dilakukan untuk mengukur apakah penggunaan pertanyaan dasar dengan gambar efektif di dalam pengajaran menulis. Desain penelitian yang digunakan di dalam penelitian ini adalah penelitian eksperimen yang terdiri dari dua grup yaitu grup eksperimen dan grup kontrol. Sampel dari penelitian ini adalah X IPA1 sebagai grup eksperimen yang terdiri dari 32 siswa dan X IPA2 sebagai grup kontrol yang terdiri dari 30 siswa. Grup eksperimen diajar dengan menggunakan pertanyaan dasar dengan gambar, sementara grup kontrol tidak diajar dengan menggunakan pertanyaan dasar dengan gambar, melainkan diajar seperti biasa atau hanya ceramah. Instrumen yang digunakan untuk mengoleksi data adalah tes. Tesnya adalah tes menulis yang diberikan di tes awal dan tes akhir. Penilaian dari hasil tes menulis difokuskan pada lima elemen dari menulis (isi, organisasi, kosa kata, penggunaan bahasa, dan mekanik). Teknik untuk mengoleksi data menggunakan rumus t-test. Dua grup dibandingkan. Hasil dari hipotesis statistik pada signifikan  $\alpha=0.05$  menunjukkan  $t_{tes}$  (2.91) lebih besar dari  $t_{tabel}$  (2.00). Itu berarti bahwa, ada perbedaan yang signifikan antara siswa yang diajar dengan menggunakan pertanyaan dasar dengan gambar dan siswa yang tidak diajar dengan pertanyaan dasar dengan gambar di dalam pengajaran menulis. Dari penjelasan diatas, dapat disimpulkan bahwa penggunaan pertanyaan dasar dengan gambar efektif di dalam pengajaran menulis siswa kelas X di SMA Muhammadiyah 1 Ponorogo Tahun Akademik 2016/2017*

**Keywords:** pertanyaan dasar, gambar, menulis

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## INTRODUCTION

Writing is one of the skills besides speaking, listening, and reading which have to be mastered by the students. According to Nunan (2003: 88) writing can be defined as the mental work of creating, thinking how to express, and arranging the ideas into expression and paragraphs, so the reader can more clear. Heaton (1989: 135) states that writing skills are complicated and difficult to teach, because not only of grammatical and rhetorical elements, but also of conceptual and judgment elements are required in writing mastery. There are some components that must be understood in writing, they are content, organization, vocabularies, language use, and mechanics. Writing is difficult since the writer does not know what the writer wants to write because the writer has not ideas.

Some problems in writing have been investigated in previous research such as study by I Gede et al., (2013) and by Meutiah&Leni, who found the cause of students' difficulties in writing are limited vocabulary, low ability in mastering grammar and spelling, difficulties to construct paragraph and generating ideas. However, the difficulty in writing can be solved by guiding the students to write that aims to support writing during the different stages of the writing process. Using media is one way

of guided writing to the students. According to Tedjasaputra (in Cahyono & Kusumaningrum, 2001: 41) there are a lot of advantages that can be gained by using media, such as media can improve the growth of psychological aspect, physical aspect, the social aspect, emotion and personality. Therefore, using basic questioning with picture as a media in teaching writing becomes an alternative that recommended by some researchers.

Patsy and Spada (2006: 130) state that questions are fundamental in engaging students in interaction and in exploring how much they understand. It means that basic questioning can be used to know students' understanding. According to Wright (1989: 2) pictures contribute to interest and motivation, a sense of the context of the language, and a specific point or stimulus. Picture also enhances the students' participation and interaction during the learning activities. Basic questioning with picture is the technique that facilitates the students in writing because students can imagine the object that wants to describe through picture, while basic questioning would help for the students in investigating the question and it would direct students in order to choose, find, and create the ideas of writing and then developing students' ideas into understanding.

The process of basic questioning is very useful to help the students to generate and organize ideas into a good composition of writing. The research takes null hypothesis and the alternative hypothesis. The null hypothesis ( $H_0$ ) is there is no a significant difference between the students who are taught by using basic questioning with picture and the students who are not taught by using basic questioning with picture in teaching writing, while the alternative hypothesis ( $H_a$ ) is there is a significant difference between the students who are taught by using basic questioning with picture and the students who are not taught by using basic questioning with picture in teaching writing. Where the criterion are:

$H_0$  rejected,  $H_a$  accepted if  $t_{\text{value}} > t_{\text{table}}$

$H_0$  accepted,  $H_a$  rejected if  $t_{\text{value}} < t_{\text{table}}$

## METHODOLOGY

In this research, the design used was experimental research which consisted of two groups, experimental and control group. This research was held at SMA Muhammadiyah 1 Ponorogo in November 2016. The population of this research was all the tenth year students of SMA Muhammadiyah 1 Ponorogo in academic year 2016/2017, while the sample of this research were X IPA1 as the experimental group which consisted of 32 students and

X IPA2 as control group which consisted of 30 students where the sample was chosen by cluster random sampling based on lottery. Experimental group was taught by using basic questioning with picture, while control group was taught without basic questioning with picture. The sketch of this design can be seen as follows:

	Pre test	Treatment	Post test
Experimental group	X	X	X
Control group	X	-	X

In collecting data, the researcher used tests as instrument of the research. test is a method that used to measure person's ability or knowledge (Brown, 1994: 384). The test of this research was writing test which given in pre test and post test. Pre test was the test given to the students before the treatment and used to measure the students' pre ability, while post test was given after the treatment and its purpose was to know the students' achievement in writing. Writing test was evaluated by the teacher by using analytical scoring based on the criteria in the rubric.

The researcher used content validity to know the validity of writing test based on syllabus, standard competence, base competence and indicator which

appropriate with grade which was taught. The researcher asked to the teacher about the validity of instruments. If the test appropriate with students' ability, the test is called valid. The researcher also tested readability to know whether the text was understandable for reader or not by using Flesch-Kincaid reading ease, which was able to do it on the website.

In analyzing data, the researcher used:

#### a. Normality of Pre Test and Post Test

Normality test was test used to know whether the data that was going to be analyzed both groups had normal distribution or not. To find out the data distribution, the researcher used normality test with Chi-Square. The formula:

$$X^2 = \sum_{i=1}^K \frac{(O_i - E_i)^2}{E_i}$$

where,

$\chi^2$  = chi square

$O_i$  = frequency that was obtained from data

$E_i$  = frequency that was hoped

$k$  = the sum of interval class

If  $\chi^2_{\text{count}} > \chi^2_{\text{table}}$ , the data is not normal distribution

if  $\chi^2_{\text{count}} < \chi^2_{\text{table}}$ , the data is normal distribution. (Sudjana, 1996: 273)

#### b. Homogeneity of Pre Test and Post Test

Homogeneity test is used to know whether the data are homogeneous or not. First step was calculated variance both groups (experimental and control group), with formula:

$$F = \frac{Vb}{Vk}$$

Vb = bigger variance

Vk = smaller variance

Determine dk =  $(n_1 - 1) : (n_2 - 1)$

If  $F_{\text{count}} > F_{\text{table}}$  the data is not homogeneous

if  $F_{\text{count}} < F_{\text{table}}$  the data is homogeneous.

#### c. Hypothesis Test

Hypothesis test was used to know whether there was significant difference between the students who were taught by using basic questioning with picture and the students who were not taught by using basic questioning with picture or not. The researcher calculated the data using t-test formula. Before the researcher calculated  $t_{\text{test}}$ , the researcher calculated the gained score from two groups. Two groups (experimental and control group) were compared. The experimental group was X variable and the control group was Y variable. The formula of t-test by AnasSudijono (2008:314) shown as follows:

$$t_o = \frac{M_x - M_y}{SE_{M_x - M_y}}$$

Before the calculation  $t_{\text{test}}$ , there were several procedures to be taken. They were as follow:

1. Determining mean of variable X

$$M_x = \frac{\sum X}{N_x}$$

2. Determining mean of variable Y

$$M_y = \frac{\sum Y}{N_y}$$

3. Determining standard deviation score of variable X

$$SD_x = \sqrt{\frac{\sum X^2}{N_x}}$$

4. Determining standard deviation score of variable Y

$$SD_y = \sqrt{\frac{\sum Y^2}{N_y}}$$

5. Determining standard error mean of variable X

$$SE_{Mx} = \frac{SD_x}{\sqrt{N_x - 1}}$$

6. Determining standard error mean of variable Y

$$SE_{My} = \frac{SD_y}{\sqrt{N_y - 1}}$$

7. Determining standard error of different mean of variable X and mean of variable Y, with formula:

$$SE_{Mx-My} = \sqrt{SE_{Mx}^2 + SE_{My}^2}$$

8. Determining  $t_o$  with formula:

$$t_o = \frac{M_x - M_y}{SE_{Mx-My}}$$

9. Determining  $t_{\text{table}}$  in significant 5% with degrees of freedom (df), with formula:

$$df = (N_x + N_y) - 2$$

The testing hypothesis:

$H_a$  = there is a significant difference mean between variable X and Y

$H_o$  = there is no significant difference mean between variable X and Y

## FINDINGS

This research used experimental research which consisted of experimental and control grup. An experimental group was taught by using basic questioning with picture, while a control group was not taught by using basic questioning with picture, it was taught as usual. This research was to find out the difference between the students who were taught by using basic questioning with picture and the students who were not taught by using basic questioning with picture.

Before analyzing the data, the researcher gave test, pre test and post test. The test was writing test. The writing test was evaluated by the experts by using analytical scoring based on the criteria in the rubric. The pre test of experimental group was conducted on November, 5<sup>th</sup> 2016 and the pre test of control group was conducted on November, 17<sup>th</sup> 2016. While, the post test of experimental group was

conducted on November, 19<sup>th</sup> 2016 and the post test of control group was conducted on November, 24<sup>th</sup> 2016.

**a. Data of Experimental Group**

**Table 1**  
**The Students' Score of Experimental Group**

Code	Pre test Score	Post test Score	Gain Score
X-1	83	83	0
X-2	49	63	14
X-3	37	66	29
X-4	62	75	13
X-5	68	68	0
X-6	58	84	26
X-7	70	79	9
X-8	65	55	-10
X-9	73	84	11
X-10	79	76	-3
X-11	49	65	16
X-12	50	80	30
X-13	65	73	8
X-14	57	73	16
X-15	50	72	22
X-16	46	77	31
X-17	80	77	-3
X-18	68	78	10
X-19	53	61	8
X-20	73	80	7
X-21	58	69	11
X-22	65	75	10
X-23	69	76	7
X-24	56	74	18
X-25	65	72	7
X-26	68	73	5
X-27	61	70	9
X-28	50	66	16

X-29	63	74	11
X-30	51	69	18
X-31	49	67	18
X-32	70	74	4

Based on the result of pre test and post test of the experimental group, it showed that the lowest score of pre test was 37 and the highest score was 83 . On the other side, the lowest score of post test was 55 and the highest score was 84. The average of pre test was 61.25 and the post test was 72.75.

**b. Data of Control Group**

**Table 2**  
**The Students' Score of Control Group**

Code	Pre test Score	Post test Score	Gain Score
Y-1	34	55	21
Y-2	59	66	7
Y-3	71	60	-11
Y-4	49	51	2
Y-5	50	66	16
Y-6	62	62	0
Y-7	61	61	0
Y-8	70	70	0
Y-9	62	68	6
Y-10	60	60	0
Y-11	62	68	6
Y-12	80	80	0
Y-13	60	70	10
Y-14	58	65	7
Y-15	56	56	0
Y-16	49	51	2
Y-17	69	70	1
Y-18	45	52	7
Y-19	50	61	11
Y-20	34	66	32
Y-21	70	74	4
Y-22	64	60	-4
Y-23	63	64	1
Y-24	71	73	2
Y-25	55	61	6
Y-26	64	65	1
Y-27	70	75	5

Y-28	60	61	1
Y-29	55	62	7
Y-30	67	77	10

Based on the result of pre test and post test of the control group, it showed that the lowest score of pre test was 34 and the highest score was 80 . On the other side, the lowest score of post test was 51 and the highest score was 80. The average of pre test was 59.3 and the post test was 64.3.

### c. The Result of Experimental and Control Group

Experimental : X Variable

Control : Y Variable

**Table 3**  
**The Comparison Score of Each Student in Experimental and Control Group**

No	X	Y	X	Y	X <sup>2</sup>	Y <sup>2</sup>
1.	0	21	-11.5	16	132.25	256
2.	14	7	2.5	2	6.25	4
3.	29	-11	17.5	-16	306.25	256
4.	13	2	1.5	-3	2.25	9
5.	0	16	-11.5	11	132.25	121
6.	26	0	14.5	-5	210.25	25
7.	9	0	-2.5	-5	6.25	25
8.	-10	0	-21.5	-5	462.25	25
9.	11	6	-0.5	1	0.25	1
10.	-3	0	-14.5	-5	210.25	25
11.	16	6	4.5	1	20.25	1
12.	30	0	18.5	-5	342.25	25
13.	8	10	-3.5	5	12.25	25
14.	16	7	4.5	2	20.25	4
15.	22	0	10.5	-5	110.25	25
16.	31	2	19.5	-3	380.25	9
17.	-3	1	-14.5	-4	210.25	16
18.	10	7	-1.5	2	2.25	4
19.	8	11	-3.5	6	12.25	36
20.	7	32	-4.5	27	20.25	729
21.	11	4	-0.5	-1	0.25	1
22.	10	-4	-1.5	-9	2.25	81
23.	7	1	-4.5	-4	20.25	16

24.	18	2	6.5	-3	42.25	9
25.	7	6	-4.5	1	20.25	1
26.	5	1	-6.5	-4	42.25	16
27.	9	5	-2.5	0	6.25	0
28.	16	1	4.5	-4	20.25	16
29.	11	7	-0.5	2	0.25	4
30.	18	10	6.5	5	42.25	25
31.	18		6.5		42.25	
32.	4		-7.5		56.25	

$$\Sigma x = 368 \quad \Sigma y = 150 \quad \Sigma x = 0$$

$$Mx = 11.5 \quad My = 5.0 \quad \Sigma y = 0$$

$$\Sigma x^2 = 2894 \quad \Sigma y^2 = 1790$$

$$Mx^2 = 90,44 \quad My^2 = 59,67$$

Before the researcher tested the hypothesis, the researcher analyzed phase first (pre test) and phase end (post test), which consisted of normality test and homogeneity test both two groups.

### Normality Test of Pre Test and Post Test

Normality test was test used to know the normality of the data that was going to be analyzed whether both group had normal distribution or not.

**Table 4**  
**Normality of Pre Test**

Pre test	Chi Square (X <sup>2</sup> )		
	X <sup>2</sup> <sub>count</sub>	Df	X <sup>2</sup> <sub>table</sub>
Experimental	4.403	3	7.814
Control	4.123	3	7.814

Based on table 4 above, it was found X<sup>2</sup><sub>count</sub> of experimental group was lower than X<sup>2</sup><sub>table</sub> (4.403 < 7.814), while X<sup>2</sup><sub>count</sub> of control group was lower than X<sup>2</sup><sub>table</sub> (4.123 < 7.814). It means that, data

distribution both experimental and control group in pre test were normal distribution.

**Table 5**  
**Normality of Post Test**

Post test	Chi Square ( $X^2$ )		
	$X^2_{count}$	Df	$X^2_{table}$
Experimental	1.18	3	7.814
Control	1.981	3	7.814

Based on table 5 above, it was found  $X^2_{count}$  of experimental group was lower than  $X^2_{table}$  ( $1.18 < 7.814$ ), while  $X^2_{count}$  of control group was lower than  $X^2_{table}$  ( $1.981 < 7.814$ ). It means that, data distribution both experimental and control group in post test were normal distribution.

**Homogeneity of Pre Test and Post Test**

Homogeneity test was test used to know whether the data were homogeneous or not.

**Table 6**  
**Homogeneity of Pre Test**

Variance source	Experimental group	Control group
Sum	1960	1780
N	32	30
Average ( $\bar{x}$ )	61.25	59.3
Variance ( $s^2$ )	119.161	96.8
Standard deviaton (s)	10.91	9.84

$$F = \frac{Vb}{Vk} = \frac{119.161}{96.8} = 1.23$$

Based on the calculation above for 5% alpha of significance with df numerator ( $n_1-1$ )= 31 and df denominatore  $dk= (n_2-1)= 29$ , it was found  $F_{table} = 1.85$ . Because of  $F_{count} < F_{table}$  , so the data of pre test both

experimental and control group had the same variance or homogeneous.

**Table 7**  
**Homogeneity of Post Test**

Variance source	Experimental group	Control group
Sum	2328	1930
N	32	30
Average ( $\bar{x}$ )	72.75	64.3
Variance ( $s^2$ )	41.53	50.26
Standard deviaton (s)	6.4	7.09

$$F = \frac{Vb}{Vk} = \frac{50.26}{41.53} = 1.210$$

Based on the calculation above for 5% alpha of significance with df numerator ( $n_1-1$ )= 31 and df denominatore  $dk= (n_2-1)= 29$ , it was found  $F_{table} = 1.85$  and Because of  $F_{count} < F_{table}$  , so the data of post test both experimental and control group had the same variance or homogeneous.

**Hypothesis Test**

Hypothesis test was used to know whether there was significant difference between the students who were taught by using basic questioning with picture and the students who were not taught by using basic questioning with picture. The experimental group was X variable and the control group was Y variable. Before the calculation  $t_{test}$ , there were several procedures to be taken. They were as follow:

$$1. M_x = \frac{\sum X}{N_x} = \frac{368}{32} = 11.5$$

$$2. M_y = \frac{\sum Y}{N_y} = \frac{150}{30} = 5.0$$

$$3. SD_x = \sqrt{\frac{\sum X^2}{N_x}} = \sqrt{\frac{2894}{32}}$$

$$= \sqrt{90.44} = 9.51$$

$$4. SD_y = \sqrt{\frac{\sum Y^2}{N_y}} = \sqrt{\frac{1790}{30}}$$

$$= \sqrt{59.67} = 7.72$$

$$5. SE_{M_x} = \frac{SD_x}{\sqrt{N_x-1}} = \frac{9.51}{\sqrt{32-1}} = \frac{9.51}{\sqrt{31}}$$

$$= \frac{9.51}{5.57} = 1.71$$

$$6. SE_{M_y} = \frac{SD_y}{\sqrt{N_y-1}} = \frac{7.72}{\sqrt{30-1}} = \frac{7.72}{\sqrt{29}}$$

$$= \frac{7.72}{5.39} = 1.43$$

$$7. SE_{M_x-M_y} = \sqrt{SE_{M_x}^2 + SE_{M_y}^2}$$

$$= \sqrt{1.71^2 + 1.43^2}$$

$$= \sqrt{2.92 + 2.04}$$

$$= \sqrt{4.96} = 2.23$$

$$t_o = \frac{M_x - M_y}{SE_{M_x-M_y}}$$

$$= \frac{11.5 - 5.0}{2.23} = \frac{6.5}{2.23} = 2.91$$

$$df = (N_x + N_y) - 2$$

$$= (32 + 30) - 2 = 60$$

The value of df 60 at the degrees of significance 5% or  $t_{table}$  5% of df 60 was 2.00.

## CONCLUSION

Based on the findings, it showed that the average score for pre test of experimental was 61.25 and average score for post test was 72.625. While the average score for pre test of control group was 59.3 and average score for post test was 64.5. It means that the experimental group was better than control group.

The result of statistical hypothesis on significance level  $\alpha=0.05$  that showed  $t_{test}$  (2.91) was higher than  $t_{table}$  (2.00), thus the  $H_o$  (null hypothesis) was rejected and  $H_a$  (alternative hypothesis) was accepted. It means that, there was significant difference between the students who were taught by using basic questioning with picture and the students who were not taught by using basic questioning with picture or lecturing only in teaching writing.

From the explanations above, it can be concluded that the use of basic questioning with picture is effective in teaching writing of the tenth year students of SMA Muhammadiyah 1 Ponorogo in academic year 2016/2017.

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