

## CHAPTER IV

### RESEARCH FINDINGS AND DISCUSSION

This chapter presents the result of the research findings and discussion that include data of research findings, hypothesis testing and discussion.

#### A. Research Finding

The present research is designed to find out the ability of the first graders of SMK PGRI 1 Tulungagung in academic year 2017/2018 in writing descriptive text when they were taught writing by using fishbone diagram and when they were taught writing without using fishbone diagram. The subjects of the research consist of two classes. The data were described into two tables. The table 4.1 showed students' score and achievement in control class and the table 4.4 showed the students' score and achievement in experimental class. The data of this research were the pre-test scores and post-test scores of control group and experimental group. The scores are presented as follows.

#### 1. The Data of Control Class

**Table 4.1**

**The Students' Scores of Control Class**

No	STUDENTS	PRETEST	POSTEST	GAINED (D)
1	AI	45	50	5
2	ANM	52	57	5
3	ANH	79	82	3
4	AR	44	49	5

5	AFS	49	57	8
6	ANR	70	74	4
7	AW	73	80	7
8	AFA	44	63	19
9	AEP	51	63	12
10	APL	50	65	15
11	ASPR	63	70	7
12	APB	49	60	11
13	AY	66	70	4
14	AH	59	70	11
15	ARI	64	67	3
16	AK	50	59	9
17	AKD	68	73	5
18	BLM	65	73	8
19	CAS	51	59	8
20	DAH	45	49	4
21	DMS	43	57	14
22	DW	59	68	9
23	DAH	62	70	8
24	DT	55	60	5
25	DA	59	66	7
26	DKA	45	57	12
27	DKP	49	60	11
28	DALK	61	63	2
29	DW	50	59	9
30	DDF	63	69	6
31	ELF	49	53	4
32	EM	50	63	13
33	EAP	43	54	11
34	ECN	49	57	8
35	EN	63	70	7
36	FAH	52	68	16
37	FR	50	66	16
	S Students (x)	683	805	122

Control class is a class which was taught writing descriptive text without using fishbone diagram. The subject of pre-test in control group consisted of 37 students. Based on the result in pre-test, the highest score is 79 and the lowest score is 43.

**a. Pretest of Control Class**

**Table 4.2**

**The Output of Statistic Data of Control Class' Score in Pre-test**

**Statistics**

pretest\_control

N	Valid	37
	Missing	28
Mean		55.11
Median		51.00
Mode		49 <sup>a</sup>
Sum		2039

a. Multiple modes exist. The smallest value is shown

Based on the table 4.2 above, show mean of pre-test score 55.11. It means the mean score is low.

## b. Post-test of Control Class

**Table 4.3**

**The Output of Statistic Data of Control Class' Score in Post-test**  
**Statistics**

postest\_control

N	Valid	37
	Missing	28
Mean		63.51
Median		63.00
Mode		57 <sup>a</sup>
Sum		2350

a. Multiple modes exist. The smallest value is shown

Based on the table 4.3 above, show Mean of post-test score 63.00. The gain of mean score between pretest and posttest was 7.89.

## 2. The Data of Experimental Class

**Table 4.4**

**The Students' Scores of Experimental Class**

No	STUDENTS	PRETEST	POSTTEST	GAIDED (D)
1	MNA	70	80	10
2	MS	47	66	19
3	MDMN	59	67	8
4	MM	66	79	13
5	NCE	77	86	9
6	NAP	53	79	26
7	NT	50	76	26
8	NCH	50	69	19
9	NS	44	55	11

10	PNS	46	76	30
11	PRA	55	69	14
12	PRO	62	83	21
13	PRM	73	78	5
14	RNY	51	77	26
15	RNR	48	67	19
16	RBS	61	65	4
17	RAO	36	60	24
18	RHS	44	60	16
19	RR	45	57	12
20	RN	53	64	11
21	SAA	43	63	20
22	SAAN	49	61	12
23	SDM	53	70	17
24	SW	57	66	9
25	SVI	67	73	6
26	SSW	52	66	14
27	SCK	64	77	13
28	SN	49	70	21
29	SSW	42	60	18
30	SA	49	67	18
31	SAM	44	64	20
32	SUWD	42	67	25
33	SIPS	64	77	13
34	UN	41	69	28
35	VV	39	57	18
36	WAP	63	80	17
37	WS	67	78	11
38	WR	48	64	16
39	YS	37	59	22
40	YDP	44	60	16
41	YW	44	67	23
	S Students (x)	2148	2828	680

Based on the table 4.4 above, it shows that the lowest score in pre-test was 36 and the highest score was 77. The highest score of post-test was 55 and the lowest score was 86.

**a. Pre-test Experimental group**

**Table 4.5**

**The Output of Statistic Data of Experimental Class' Score in Pre-test**

N	Valid	41
	Missing	24
Mean		52.39
Median		50.00
Mode		44
Sum		2148

Based on the table 4.5 above, show mean of pre-test score 52.39. It means the mean score is low.

**b. Post-test of Experimental Class**

**Table 4.6**

**The Output of Statistic Data of Experimental Class' Score in Post-test**

N	Valid	41
	Missing	24
Mean		69.20
Median		67.00
Mode		67
Sum		2837

Based on the table 4.6 above, show Mean of post-test score 69.20. The gain of mean score between pre-test and post-test was 16.81.

## B. Hypothesis Testing

The hypothesis of this research are:

### 1. Null Hypothesis ( $H_0$ )

“There is no significant difference in students’ writing achievement of descriptive text before and after being taught by using fishbone method”.

### 2. Alternative Hypothesis ( $H_1$ )

“There is significant difference in students’ writing achievement of descriptive text before and after being taught by using fishbone method”.

To know whether there are any significant different students writing achievement between the students who are taught and the students who are no taught by using fishbone diagram, the calculating result should show whether  $H_0$  is rejected meanwhile  $H_1$  is accepted. To analyzed the data the researcher by using SPSS 16 version, the result can be seen on table as below.

**Table 4.7**  
**Group Statistic**

group	N	Mean	Std. Deviation	Std. Error Mean
score treatment	41	16.59	6.488	1.013
control	37	8.41	4.173	.686

Based on table 4.7, it shows there are two class, it was experiment class and control class. First Control class, shows N cell there are 37, Mean of score control class (8.41), Standard Deviation for control class (4.173), and standard error mean for control class (0.686). While, in Experimental class or class 2, shows cell there are 41, Mean of score experimental class (16.59), Standard Deviation for experimental class (6.488), and Standard Error Mean for experimental (1.013).

From the result above it can conclude, that there is significant different of students' score mean between those who are taught by using fishbone diagram and those who aren't.

**Table 4.8**  
**Independent Sample 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	7.605	.007	6.542	76	.000	8.180	1.250	5.690	10.670
	Equal variances not assumed			6.685	68.973	.000	8.180	1.224	5.739	10.621



From the result of t-test on above it can conclude, that significant level (two tailed) is 0.000, given that the present test is one-tailed test, so the  $p$  value (0.000) is divided by two:  $0.000/2 = 0.00$ , and it is lower than 0.05 ( $0.000 < 0.05$ ). It was found that there is significant difference of students' achievement before and after those who are taught by using fishbone diagram and those who are not. It means that teaching writing in descriptive text using picture series is effective. The null hypothesis stated there is no significant differenced who are taught by fishbone method and who are no taught by using fishbone method. Alternative hypothesis stated is accepted in other word there is an effective of using fishbone for teaching writing descriptive text.

### **C. Discussion**

The gain of the mean score of control group between pre-test to post-test was 7.89 and gain of the mean score of experimental group between pre-test and post-test was 16.81. Although the pre-test score experiment class was better of pre-test score control class, but the gain score experimental class was high.

From the research finding above the data were analyzed with the helped of SPSS program 16.0 version. The students who are taught without by using fishbone method did not make significant improvement, as seen from the mean score of pre-test was 55.11, as seen from the mean score of post-test was 63.51. The students who are taught by using fishbone method make significant improvement, as seen from the mean score of pre-test was 52.39 and the mean score of post-test was 69.20. So, the gain of the mean pre-test score experimental class better of pre-test score control class, but the

gain of score experimental class is high. The calculation of the achievement using t-test show that there is significant difference of students' achievement before and after those who are taught by using fishbone and those who are not. It means that teaching writing in descriptive text using fishbone diagram is effective. The null hypothesis stated there is no significant difference those who are taught by using fishbone method and those who are not is rejected.

The use of fishbone method in teaching writing ability was effective. It can help students to brainstorming their ideas and construct their text. Garvey (2008) argued fishbone method can help to construct some factors that associated with a particular topic and show how they can relate together. It meant, the students can brainstorm their ideas about what they will write and write their text with related arguments so their text can be arranged systematically.

The result of this research was also similar to the previous studies. The first was the research from Setiawan (2014) that using fishbone diagram could improve students' ability in writing hortatory exposition. The second is from Sidabutar (2016) that using fishbone strategy could effect the students' analytical exposition writing ability. The third is from Fara (2016) that using fishbone diagram could improve students' reading comprehension. The next from Subaedah (2011) that using fishbone diagram could improve students' writing skill. The last previous study was from Shan Li (2011) who did a classroom action research and the result was fishbone method could improve the quality of proposal.

Furthermore, this research also confirms some research theories from the experts. For the first was the theory of using fishbone method could be an effective way to make students more understand how to organize information. It supports theory from Martin (2006) said that the visual tools can help students to understand and organize information.

The second, fishbone diagram could improve the students' writing in generating ideas. According to the theory from English Language Arts: Writing Across the Curriculum (1996) that said when students use this diagram to guide development of a writing piece, ideas will be generated as a prewriting strategy. The graphic helps students organize their drafts. Through fishbone diagram, the students could brainstorm their ideas and organize them before writing them on a paper.

The last, fishbone could develop students' creative thinking in collecting ideas from brainstorming activities. Burtonshaw-Gunn (2010) said that fishbone diagram is a highly visual graphic technique which stimulates arranged ideas and develops creative ideas.

In conclusion, the fishbone method was an effective way in improving students' skill in writing hortatory exposition text and could be a good way in increasing students' awareness of their own learning process and progress.