

## **CHAPTER IV**

### **RESEARCH FINDING**

#### **A. Description of Data**

In this chapter, the writer would like to present the description of the data collected from the implementation of using electronic dictionary to effectiveness of students' writing skill in descriptive text at first grade of SMPN 1 Pontang in academic years 2015/2016. The data had taken from the learning activity by the writer through two test, they are pre-test and post-test. Pre-test was conducted on Monday, November 16<sup>th</sup> 2015 and post-test was conducted on Thursday, November 17<sup>th</sup> 2015.

As tested in this chapter, the writer took 50 students as the sample of this research from students of first grade. The writer divided them into two groups, 25 students of experiment class and 25 students of control class. The goal of this research is intended to find out the accurate data in accord once in accordance with the research title.\

**B. Data Analysis**

Table 1

Result of Pre-Test and Post-Test in Experiment Class

No	Name	Pre-Test	Post-Test
1	A M	70	75
2	A	70	74
3	A M	70	77
4	A A	70	75
5	A I R	70	76
6	A R	74	80
7	D M S	77	86
8	D G	71	78
9	E A	73	78
10	F N S	70	77
11	H S	70	77
12	I P	72	78
13	L S	72	78
14	L	71	78
15	M R	76	80
16	M	77	84

17	R F	70	77
18	S	70	75
19	S	70	79
20	S	70	77
21	S A	70	79
22	S F	73	80
23	S	70	77
24	U M	71	78
25	Y S	70	76
	$\Sigma$	1787	1949

Based on the table above, the lowest score in pre-test was experiment class 70 and high score was 77. It is different with post-test score. The lowest score in post-test was of experiment class74 and high score was 86.

Table 2

Result of Pre-Test and Post-Test in Control Class

No	Name	Pre-Test	Post-Test
1	A S	73	82
2	A M	70	72
3	B B	70	78
4	B J	73	75
5	E S	70	80
6	E S	71	78
7	F F	74	76
8	F H	70	78
9	G R	73	76
10	H N	72	77
11	H R	75	78
12	L	71	73
13	M	71	80
14	M R	70	72
15	M M	78	85

16	M R	77	80
17	M	75	77
18	N	74	75
19	O M	70	74
20	P M	73	74
21	S J	71	73
22	S	70	72
23	W N	70	72
24	W K	70	73
25	E E	70	72

Based on the table above, the lowest score in pre-test of control class was 70 and high score was 78. In post-test score of control class, the lowest score are 72 and high score was 85.

Table 3  
Score of Experiment Class and Control Class  
(Pre-test and Post-Test)

No	Name	Experiment Class				Name	Control Class			
		Pre-Test	Post-Test	Gain (d)	d <sup>2</sup>		Pre-Test	Post-Test	Gain (d)	d <sup>2</sup>
1	AM	70	75	5	25	AS	73	82	9	81
2	A	70	74	4	16	AM	70	72	2	4
3	AM	70	77	7	49	BB	70	78	8	64
4	AA	70	75	5	25	BJ	73	75	2	4
5	AIR	70	76	6	36	ES	70	80	10	100
6	AR	74	80	6	36	ES	71	78	7	49
7	DMS	77	86	9	81	FF	74	76	2	4
8	DG	71	78	7	49	FH	70	78	8	64
9	EA	73	78	5	25	GR	73	76	3	9
10	FNS	70	77	7	49	HN	72	77	5	25
11	HS	70	77	7	49	HR	75	78	3	9
12	IP	72	78	6	36	L	71	73	2	4
13	LS	72	78	6	36	M	71	80	9	81

14	L	71	78	7	49	MR	70	72	2	4
15	MR	76	80	4	16	MM	78	85	3	9
16	M	77	84	7	49	MR	77	80	3	9
17	RF	70	77	7	49	M	75	77	2	4
18	S	70	75	5	25	N	74	75	1	1
19	S	70	79	9	81	OM	70	74	4	16
20	S	70	77	7	49	PM	73	74	1	1
21	SA	21	79	9	81	SJ	71	73	2	4
22	SF	73	80	7	49	S	70	72	2	4
23	S	70	77	7	49	WN	70	72	2	4
24	UM	71	78	7	49	WK	70	73	3	9
25	YS	70	76	6	36	EE	70	72	2	4
$\Sigma$		1787	1949	162	1094		1801	1902	101	607
$\bar{X}$		71.48	77.96	6.48	43.76		72.04	76.08	4.04	24.28

Based on the table, got the data:

$$\Sigma dx = 162$$

$$\Sigma dx^2 = 1094$$

$$\Sigma dy = 101$$

$$\Sigma dy^2 = 607$$

- a. Determine mean of variable X with formula:

$$\begin{aligned} MX &= \frac{\sum dx}{N} \\ &= \frac{162}{25} \\ &= 6.48 \end{aligned}$$

- b. Determine mean of variable Y with formula:

$$\begin{aligned} MY &= \frac{\sum dy}{N} \\ &= \frac{101}{25} \\ &= 4.04 \end{aligned}$$

- c. Determine how big percentage of the average score increase variable X by formula:

$$\begin{aligned} \% &= \frac{MX}{MX+MY} \times 100\% \\ &= \frac{6.48}{6.48+4.04} \times 100\% \\ &= 61\% \end{aligned}$$

- d. Determine how big percentage of the average score increase variable Y by formula:

$$\begin{aligned} \% &= \frac{MY}{MX+MY} \times 100\% \\ &= \frac{4.04}{6.48+4.04} \times 100\% \\ &= 38\% \end{aligned}$$



e. Determine standard deviation X with formula:

$$\begin{aligned}\sum X^2 &= \sum X^2 - \frac{(\sum X)^2}{N} \\ &= 1094 - \frac{(162)^2}{25} \\ &= 44.24\end{aligned}$$

f. Determine standard deviation Y with formula;

$$\begin{aligned}\sum Y^2 &= \sum Y^2 - \frac{(\sum Y)^2}{N} \\ &= 607 - \frac{(101)^2}{25} \\ &= 198.96\end{aligned}$$

g. Analyze the result by using the calculation:

$$\begin{aligned}t_0 &= \frac{Mx - My}{\sqrt{\left(\frac{\sum x^2 + \sum y^2}{Nx + Ny - 2}\right)\left(\frac{1}{Nx} + \frac{1}{Ny}\right)}} \\ &= \frac{6.48 - 4.04}{\sqrt{\left(\frac{44.24 + 198.96}{25 + 25 - 2}\right)\left(\frac{1}{25} + \frac{1}{25}\right)}} \\ &= \frac{2.44}{\sqrt{(5.07)(0.08)}} \\ &= 3.857\end{aligned}$$

$$\begin{aligned}df &= Nx + Ny - 2 \\ &= 25 + 25 - 2 \\ &= 48\end{aligned}$$

df = 48 with signification 5%, t table is 1.677 and signification 1%, t table is 2.407.

### **C. Hypothesis Testing**

To verify the authentication, the data obtained from the experiment and control class is calculated with assumption as follow:

1. If  $H_0 : t_0 < t_t$  : Null hypothesis is rejected. It means there is no effectiveness of electronic dictionary in descriptive text toward students' writing skill.
2. If  $H_0 : t_0 > t_t$  : Alternative hypothesis is receive. It means there is effectiveness of electronic dictionary in descriptive text toward students' writing skill.

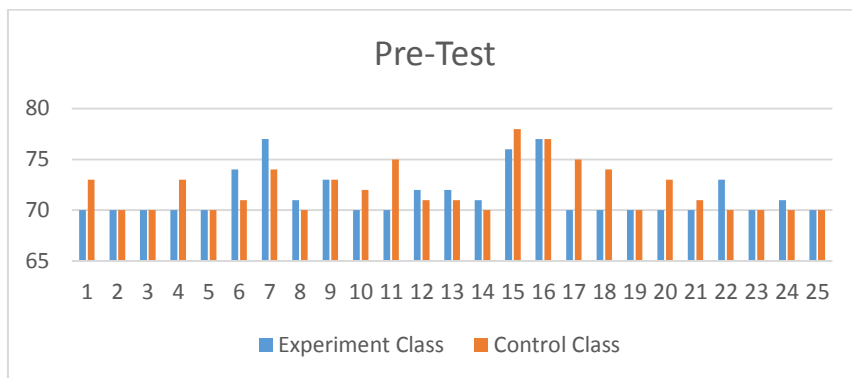
### **D. Interpretation of Data**

This analysis is aimed to know the effectiveness of electronic dictionary in descriptive text toward students' writing skill.

## Graphic 1

## Frequency of Pre-Test Score

(Experiment Class and Control Class)



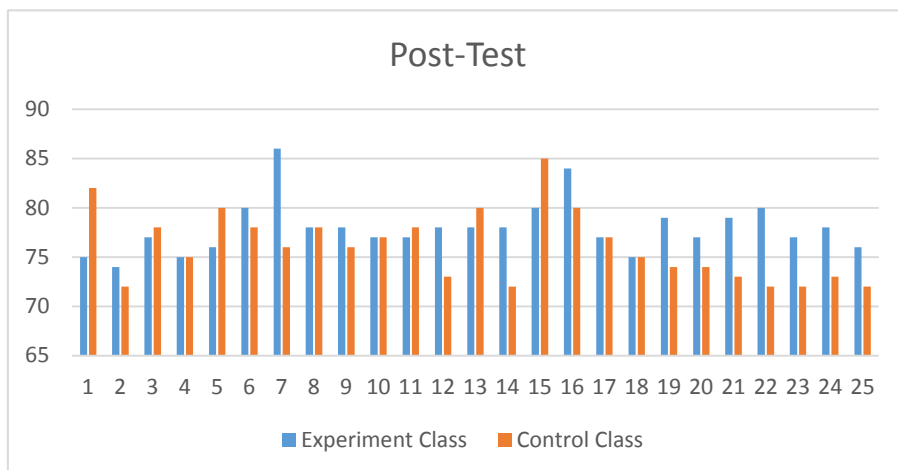
Based on the graphic above, the lowest score both is 70 and high score is 76 in experiment class and 78 in control class.

## Graphic 2

## Frequency of Post-Test

(Experiment Class and Control Class)

Based on the graphic above, the lowest score in experiment class is 72 and 74 in control class. High score in experiment class is 86 and 85 in control class.



The wrchart area have already to know that the average score of experiment class is 71.48 in pre-test and 77.96 in post-test. While, the average score of control class is 72.04 in pre-test and 76.08 in post-test. Seeing the last calculation. The calculation mean score of experiment class higher than control class, there are 6.48 in experiment class and 4.04 in control class.

Before deciding the result of hypothesis, the writer proposed the interpretation towards  $t_0$  (t observation) which procedure as follow:

$\mu_1 \neq \mu_2$  There is effectiveness of electronic dictionary in descriptive text toward students' writing skill.

$\mu_1 = \mu_2$  There is no effectiveness electronic dictionary in descriptive text toward students' writing skill.

Furthermore the writer followed some assumption such bellow:

- a. If the result of calculation  $t_0$  (t observation) is bigger than  $t_t$  (t table) :  $t_0 > t_t$  so the null hypothesis ( $\mu_1 = \mu_2$ ) is rejected and alternative hypothesis ( $\mu_1 \neq \mu_2$ ) is accepted.
- b. If the result of calculation  $t_0$  (t observation) is smaller than  $t_t$  (t table) :  $t_0 < t_t$  so the null hypothesis ( $\mu_1 = \mu_2$ ) is accepted and the alternative hypothesis ( $\mu_1 \neq \mu_2$ ) is rejected.

According to the data,  $t_0$  is 3.86, at degree of significance 5% is 1.677 and at degree of significance 1% is 2.407. The value of  $t_0$  (t observation) is bigger than  $t_t$  (t table)  $1.677 < 3.857 > 2.407$ . So, the null hypothesis ( $\mu_1 = \mu_2$ ) is rejected and the alternative hypothesis ( $\mu_1 \neq \mu_2$ ) is accepted. Based on the data analysis and discussion above, the writer can interpret that electronic dictionary is effective to be used in the classroom in teaching and learning writing skill.