

CHAPTER IV

RESULT AND DISCUSSION

A. The Description of the Research

In this chapter, the writer will attempt to submit the data as outcomes of research that hold SMP Daar El-Qolam Jayanti. The research is only directed to the students for Tenth grades. The writer divided them into two groups. 38 students as an experimental class from first grades of class VIII c and 38 students as a control class from first grades of class VIII d.

The research compares the speaking ability of pre-test and post-test, to know whether simulation method effective in teaching speaking. The writer did an analysis of quantitative data. The data is obtained by giving pre-test and post-test to the experimental class and control class. The pre-test given before given treatment and post-test after given a different treatment both of classes.

The writer describes the result of pre-test in experimental class by the table below:

Table 4.1

The Students' Score of Pre-test at the Experimental Class

No	Name	Pre-test
1	ANK	84
2	FRG	88

3	HAS	88
4	LK	88
5	MR	80
6	MFR	84
7	MFH	88
8	MGM	84
9	MNS	88
10	MRS	76
11	MRD	84
12	MZM	72
13	RA	44
14	RR	88
15	RP	84
16	SIR	64
17	WM	64
18	APS	72
19	CS	56
20	DNR	72
21	FKS	76
22	GAZ	80
23	HMS	84
24	IH	56
25	KI	68
26	MAH	80
27	NAD	68
28	NAF	92
29	NIL	80
30	NUR	68

31	PM	80
32	SHA	88
33	SUF	84
34	SYA	84
35	ZAH	56
36	NL	60
37	MM	50
38	ABS	65
N = 38	Total Score	2896
	Average	76.2

The table above shows about the students' pre-test at the experimental class. The data the highest score of pre-test at the experimental class is 92, it is gotten by one student and the lowest score of pre-test at experimental class is 44, it is gotten by one student and the average score of pre-test is 76.2.

Table 4.2

The Students' Score of Pre-test at the Control Class

No	Name	Pre-test
1	ACH	76
2	AA	80
3	MAN	84
4	MF	68
5	MFR	72
6	MA	72
7	MF	76
8	MR	76

9	MRS	76
10	NAB	68
11	NIW	65
12	PR	48
13	REH	48
14	SHE	80
15	WIL	60
16	ZAH	68
17	ZID	48
18	AG	52
19	ALV	72
20	AZL	68
21	HEN	80
22	KAM	60
23	KAY	72
24	KHI	64
25	KIN	56
26	MARS	68
27	NAJ	60
28	NAZ	64
29	NIH	84
30	NY	56
31	PUS	84
32	SAB	60
33	SIN	64
34	SY	68
35	ZAH	84
36	SYA	58

37	NR	65
38	YY	75
N = 38	Total Score	2561
	Average	67.3

The table above shows about the students' pre-test at the control class. The data the highest score of pre-test at the control class is 84, it is gotten by four students and the lowest score of pre-test at the control class is 44, it is gotten by one student and the average score of pre-test is 67.3.

Table 4.3

The Students' Score of Post-test at the Experimental Class

No	Name	Post-test
1	ANK	88
2	FRG	92
3	HAS	92
4	LK	92
5	MR	92
6	MFR	88
7	MFH	92
8	MGM	88
9	MNS	92
10	MRS	88
11	MRD	88
12	MZM	84
13	RA	88

14	RR	92
15	RP	88
16	SIR	92
17	WM	68
18	APS	96
19	CS	84
20	DNR	88
21	FKS	84
22	GAZ	92
23	HMS	92
24	IH	64
25	KI	92
26	MAH	84
27	NAD	80
28	NAF	96
29	NIL	92
30	NUR	84
31	PM	88
32	SHA	92
33	SUF	88
34	SYA	88
35	ZAH	60
36	NL	55
37	MM	66
38	ABS	50
N = 35	Total Score	3.284
	Average	86.4

The table above shows about the students' post-test at the experiment class. The data shows that the highest score of post-test at the experiment class is 96, it is gotten by two students and the lowest score of post-test at the experiment class is 60, it is gotten by one student and the average score of post-test is 86.4.

Table 4.4

The Students' Score of Post-test at the Control Class

No	Name	Post-test
1	ACH	84
2	AA	92
3	MAN	88
4	MF	72
5	MFR	84
6	MA	76
7	MF	80
8	MR	80
9	MRS	80
10	NAB	72
11	NIW	80
12	PR	68
13	REH	60
14	SHE	84
15	WIL	80
16	ZAH	80
17	ZID	60
18	AG	56
19	ALV	76

20	AZL	72
21	HEN	84
22	KAM	64
23	KAY	84
24	KHI	76
25	KIN	68
26	MARS	72
27	NAJ	72
28	NAZ	68
29	NIH	88
30	NY	60
31	PUS	88
32	SAB	68
33	SIN	72
34	SY	72
35	ZAH	92
36	SYA	58
37	NR	65
38	YY	75
N = 38	Total Score	2.860
	Average	75.2

The table above shows about the students' post-test at the control class. The data shows that the highest score of post-test at the control class is 92, it is gotten by two students and the lowest score of post-test at the control class is 48, it is gotten by one student and the average score of post-test is 75.2.

Based on the data above, it shows that students speaking skill of students Daar el Qolam improved in using simulation method. It is gotten by student in experimental class that the highest score of post-test is 96 and the lowest score is 60.

B. Data Analysis

Table 4.5

The difference Score between Pre-Test and Post-Test of Experimental Class

No	Name	Pre-Test (x_1)	Post-Test (x_2)	Deviation ($X = x_2 - x_1$)	Squared Deviation (x^2)
1	ANK	84	88	4	16
2	FRG	88	92	4	16
3	HAS	88	92	4	16
4	LK	88	92	4	16
5	MR	80	92	12	144
6	MFR	84	88	4	16
7	MFH	88	92	4	16
8	MGM	84	88	4	16
9	MNS	88	92	4	16
10	MRS	76	88	12	144
11	MRD	84	88	4	16
12	MZM	72	84	12	144
13	RA	44	88	44	1936
14	RR	88	92	4	16
15	RP	84	88	4	16

16	SIR	64	92	28	784
17	WM	64	68	4	16
18	APS	72	96	24	576
19	CS	56	84	28	784
20	DNR	72	88	16	256
21	FKS	76	84	12	144
22	GAZ	80	92	12	144
23	HMS	84	92	12	144
24	IH	56	64	8	64
25	KI	68	92	24	576
26	MAH	80	84	4	16
27	NAD	68	80	12	144
28	NAF	92	96	4	16
29	NIL	80	92	12	144
30	NUR	68	84	16	256
31	PM	80	88	8	64
32	SHA	88	92	4	16
33	SUF	84	88	4	16
34	SYA	84	88	4	16
35	ZAH	56	60	4	16
36	NL	60	58	2	4
37	MM	50	65	15	150
38	ABS	65	75	10	100
				$\Sigma X = 396$	$\Sigma X^2 = 7152$

Table 4.6

The difference Score between Pre-Test and Post-Test of Control Class

No	Name	Pre-Test (x_1)	Post-Test (x_2)	Deviation ($X = x_2 - x_1$)	Squared Deviation (x^2)
1	ACH	76	84	8	64
2	AA	80	92	12	144
3	MAN	84	88	4	16
4	MF	68	72	4	16
5	MFR	72	84	12	144
6	MA	72	76	4	16
7	MF	76	80	4	16
8	MR	76	80	4	16
9	MRS	76	80	4	16
10	NAB	68	72	4	16
11	NIW	65	80	15	225
12	PR	48	68	20	400
13	REH	48	60	12	144
14	SHE	80	84	4	16
15	WIL	60	80	20	400
16	ZAH	68	80	12	144
17	ZID	48	60	12	144
18	AG	52	56	2	4
19	ALV	72	76	2	4
20	AZL	68	72	4	16
21	HEN	80	84	4	16

22	KAM	60	64	4	16
23	KAY	72	84	12	144
24	KHI	64	76	12	144
25	KIN	56	68	12	144
26	MARS	68	72	4	16
27	NAJ	60	72	12	144
28	NAZ	64	68	4	16
29	NIH	84	88	4	16
30	NY	56	60	4	16
31	PUS	84	88	4	16
32	SAB	60	68	8	64
33	SIN	64	72	8	64
34	SY	68	72	4	16
35	ZAH	84	92	8	64
36	SYA	58	50	8	64
37	NR	65	60	5	25
38	YY	75	75	0	0
				$\Sigma Y = 295$	$\Sigma Y^2 = 3289$

From the data gotten above, the writer calculated t-test using some steps, there are:

1. Determining Mean of Score Experimental Class (M_x), through formula:

$$\begin{aligned}
 M_x &= \frac{\Sigma X}{N} \\
 &= \frac{396}{35} \\
 &= 10.4
 \end{aligned}$$

2. Determining Mean of Score Control Class (M_y), through formula:

$$\begin{aligned} M_y &= \frac{\sum y}{N} \\ &= \frac{295}{35} \\ &= 7.7 \end{aligned}$$

3. Determining the Total Square of Error of Experimental Class (X), through formula:

$$\begin{aligned} \sum X^2 &= \sum X^2 - \left[\frac{\sum X}{N} \right]^2 \\ &= 7152 - \left[\frac{396}{35} \right]^2 \\ &= 7152 - \frac{156816}{35} \\ &= 7152 - 4126 \\ &= 3026 \end{aligned}$$

The result above shows about the average score (mean) at experimental class.

The writer got the data from $\sum X_1$, $\sum X_2$, $\sum X$ and $\sum X^2$. After words the writer calculated the data based on the formula above.

4. Determine the total square of error control class (Y) with formula:

$$\begin{aligned} \sum y^2 &= \sum y^2 - \left[\frac{\sum y}{N} \right]^2 \\ &= 3289 - \left[\frac{295}{38} \right]^2 \\ &= 3289 - \frac{87025}{38} \\ &= 3289 - 2290 \end{aligned}$$

43

=999

The result above shows about the average score (mean) at control class. The writer got the data from $\sum Y_1$, $\sum Y_2$, $\sum Y$ and $\sum Y^2$. After words the writer calculated the data based on the formula above.

5. Calculates T-test

Notes:

$$t = \frac{Mx - My}{\sqrt{\frac{\sum X^2 + \sum Y^2}{Nx + Ny - 2} \left[\frac{1}{Nx} + \frac{1}{Ny} \right]}}$$

T = test

M = means of each group from the deviation

X = the deviation of every X_1 and X_2

Y = the deviation of every Y_1 and Y_2

N = number of students

$$t = \frac{Mx - My}{\sqrt{\frac{\sum X^2 + \sum Y^2}{Nx + Ny - 2} \left[\frac{1}{Nx} + \frac{1}{Ny} \right]}}$$

$$t = \frac{10.4 - 7.7}{\sqrt{\frac{3026 + 999}{38 + 38 - 2} \left[\frac{1}{38} + \frac{1}{38} \right]}}$$

$$t = \frac{2.7}{\sqrt{\frac{4025 \left[\frac{2}{76} \right]}{74}}}$$

$$t = \frac{2.7}{\sqrt{54.39 \times 0.02}}$$

$$t = \frac{2.7}{\sqrt{1.0878}}$$

$$t = \frac{2.7}{1.04}$$

$$t = 2.59$$

The result above shows about the average score (mean) at experimental class. The writer got the data from \bar{M}_X , \bar{M}_Y , $\sum Y$ and $\sum X^2$. After words the writer calculated the data based on the formula above.

Determine the Degree of Freedom, with formula:

$$Df = N_X + N_Y - 2$$

$$Df = 38 + 38 - 2$$

$$Df = 74$$

The result above shows about the score of samples both experimental and control class. The writer used 74 for research 38 students from VIII c as experimental class and 38 students from VIII d 4 as a control class.

Comparing “t” has tested in calculating ($t_o = 2.59$) and $df = 74$. There is no df (degree of freedom for 68, so the writer used the closer “ df ” from 74, which has been tested on t-table ($t_{5\%} = 1.68$ and $t_{1\%} = 2.42$). it can be known that $t_o > t_{5\%}$ and $t_o > 1\%$, it means $1.68 < 2.59 > 2.42$.

C. Interpretation of Data

The data show that the mean of pre-test scores obtained by students of VIII c as an experimental class = 76.2 and pre-test scores obtained by students of VIII d as a control class = 67.3. The highest score in two classes is different that is class VIIIa as an experimental class got 92 and as a control class got 84. The lowest score of pre-test in both classes was 44 for experimental class and 44 also for control class.

The mean of post-test, score of VIII c as an experimental class = 86.4 was greater than VIII d as a control class = 75.2. The highest score of post-test of VIII c as an experimental class got 96, and VIII d as a control class got 92. The lowest post-test of experimental class 60 and the lowest post-test of control class 48.

From the interpretation data above $t\text{-count} > t\text{-table}$ means there is significance effect of using simulation method.

Testing hypothesis is to know the significant of both variables, and tested as follow:

$$H_a = t_o > t_t$$

$$H_o = t_o < t_t$$

H_a : Alternative Hypothesis

H_o : Null Hypothesis

T_o : The value of t- count

T_t : The value of t- table

To prove the data hypothesis, the data obtained from an experimental class and control class are calculated by using t-test formula with assumption as follows:

If $t_o > t_t$: The alternative hypothesis is accepted. It means there is significant effect by using simulation method on students' speaking skill.

If $t_o < t_t$: The alternative hypothesis is rejected. It means there is no significant by using simulation method on students' speaking skill.

From the result calculation above, the of $t_o = 2.59$ the degree of freedom (df) = 76. The writer used the degree of significant 5% = 1.68 and 1% = 2.42. It means that H_a (Alternative Hypothesis) of the writer is accepted and H_o (Null Hypothesis) is rejected.

After getting the data, the writer compared it t_t both degree of significant 5% and 1% $t_o > t_t$ 5% and $t_o > t_t$ 1%, it means $2.42 < 2.59 > 1.68$. It means (Alternative Hypothesis) of the research is accepted.

Based on the criteria above, the writer inferred that her alternative hypothesis (H_a) teaching speaking using simulation method is accepted. On the other hand, null hypothesis (H_o) teaching speaking without simulation method doesn't effective students' speaking is rejected.

The writer has already known that the average score of pre-test in experimental class is 76.2 and the average score of post-test in experimental class is 86.4 but the average score of pre-test in control class is 67.3 and the average score of post-test in control class is 75.2.

All of the students gave positive response toward the application of the technique. They like to learn English speaking skill through the use of simulation method, no one of them did not like the activity. Besides, all of the students also said that this technique could motivate them in learning and made them easier to learn English speaking in SMP Daar El-Qolam Jayanti

Moreover, from the result of the writer's view it showed that the students' motivation was good after given a treatment. It could be seen from the students' participation during the teaching-learning process and doing the tasks. All of the students looked enjoying the activities in the class. Their attention to the teaching

learning activities became more serious and they did the instructions enthusiastically. It also happened when the students were working in the groups. It was observed their activeness in working group and in the following the tournament in every teaching learning activity. As the result, the teaching and learning process ran well in which all of the students got involved in the activity. Besides, during class was conducted, all of them were present that made the teaching learning process could be followed by all students.