

CHAPTER IV

RESEARCH FINDINGS AND DISCUSSIONS

A. Data Description

In this chapter, the researcher attempts to submit the data as outcomes of research that has been hold at SMP Negeri 17 Kota Serang, the researcher is only directed to the students of the second grade. Two classes were taken as the sample. Class VIII C as the control group that consist 40 students and VIII D as the experimental group that consist 40 students.

The researcher got two data. The first data is the result of pre-test and the second one is the result of post-test from both classes. The pre-test was to know the students' listening comprehension before the teaching listening by using video conversation was started. After the pre-test, the experimental group was given treatment. The experimental group (X) was taught by using video conversation method while the control group (Y) none use strategy. The result of pre-test was named variable and the result of post-test was named variable.

To know the effectiveness of using conversation video in learning listening comprehension, the researcher identify some results, they are: the score of students before treatment, the score of students after treatment and the differences between pre-test and post-test score of students. After doing the research, the researcher got the result that would be described in the following table.

Table 4.1
Data of Pre-test and post-test from Experiment Class (X)

No	Respondent	Score		Gained Score
		Pre-test	Post-test	
1	APF	25	45	20
2	ARD	80	85	5
3	BAA	45	40	-5
4	CCN	35	75	40
5	FH	30	30	0
6	FN	65	60	-5
7	FA	70	75	5
8	FL	50	35	-15
9	FHM	60	80	20
10	HN	25	80	55
11	IH	20	40	20
12	IS	75	70	-5
13	IK	50	45	-10
14	MF	25	45	20

15	MH	25	45	20
16	MR	70	85	15
17	MRM	80	85	5
18	NA	60	75	15
19	NK	25	60	35
20	NR	25	40	15
21	NS	40	75	35
22	MS	50	60	10
23	MY	40	60	20
24	NH	65	60	-5
25	NK	40	45	5
26	NR	45	55	10
27	RA	55	50	-5
28	RCH	55	70	15
29	RI	15	50	35
30	RR	80	90	10
31	SA	55	70	15

32	SAH	70	85	15
33	SH	40	70	30
34	SN	25	60	35
35	TFM	15	70	55
36	TH	55	50	-5
37	WRR	45	70	25
38	WH	40	65	25
39	ZI	30	55	25
40	ZN	35	75	40
	Total Score Σ	1835	2485	650
	Average X	45.87	62.12	16.25

The table above shows the students pre-test and the post-test score listening comprehension at experiment class. It can be stated that the high test score of the pre-test is 80, it is got by four students and the low test score is 15 it is got by one student and the total score of pre-test is 1835. While the high test score of post-test is 90 it is got by one student and the low test score is 35 it is got by two students and the total score is 2485. Therefore, from the data, it can be concluded that scores are increasing.

To find mean score, the researcher follows the formula:

$$\begin{aligned} M1 &= \frac{\sum X1}{N} \\ &= \frac{2485}{40} \\ &= 62.12 \end{aligned}$$

The average of the post-test in experiment class is 62.12 this is shows that there is the improvement from the pre-test

$$\begin{aligned} M2 &= \frac{\sum X2}{N} \\ &= \frac{1835}{40} \\ &= 45.87 \end{aligned}$$

The average of the pre-test in experiment class is 45.87 this is shows listening comprehension of the students are less

$$\begin{aligned} M &= M1 - M2 \\ &= 62.12 - 45.87 \\ &= 16.25 \end{aligned}$$

The score above shows that there is the improvement of students listening comprehension amounts 16.25 points.

- Note: M = Mean
- X1 = Students' score 1 (post-test)
- X2 = Students' score 2 (pre-test)
- N = Number of students
- M1 = Mean of post-test
- M2 = Mean of pre-test

Based on the calculation on the table 1 of pre-test and post-test assessment at experiment class, it shows that the cumulative value of assessment result before applying conversation video is 1835. The average of the pre-test is 45.87. Meanwhile, the cumulative of assessment result after applying conversation video is 2485. The average of the post test is 62.12.

From the calculation of determine mean above, we have known that the average score of pre-test and post-test at experiment class increase in amount 16.25.

Meanwhile, the data by control class differences between pre-test and post-test score of students. After doing the research, the writer got the result that would be described in the following table;

Table 4.2
Data of Pre-test and post-test from Control Class (Y)

No	Respondent	Score		Gained Score
		Pre-test	Post-test	
1	AAP	50	35	-15
2	AD	20	25	5
3	AG	10	30	20
4	AN	50	55	5
5	AR	45	45	0
6	AS	20	30	10

7	ASF	40	45	5
8	BND	70	70	0
9	BS	65	65	0
10	EAT	30	45	15
11	FA	10	5	-5
12	FR	5	10	5
13	FWL	75	70	-5
14	FZ	70	50	-20
15	GN	95	85	-10
16	HA	45	45	0
17	HN	50	40	-10
18	JH	20	30	10
19	JU	30	40	10
20	LTN	45	45	0
21	MFAR	55	40	-15
22	MI	45	55	10
23	MN	60	70	10

24	MSN	90	95	5
25	MY	55	60	5
26	NA	40	30	-10
27	ND	60	50	-10
28	NM	75	60	-15
29	OA	20	60	-40
30	RH	45	40	-5
31	RK	55	45	-10
32	RS	25	50	-25
33	SFR	5	30	-25
34	SLM	55	55	0
35	SLY	75	70	-5
36	UM	35	15	-20
37	UU	35	35	0
38	WA	55	60	-5
39	AN	30	30	0
40	ZM	85	55	-30

Score Σ	1845	1870	25
X	46.12	46.75	0.63

The table above shows the students pre-test and the post-test score listening comprehension at controlled class. It can be stated that the high test score of the pre-test is 95, it is got by one students and the low test score is 5 it is got by two students and the total score of pre-test is 1845. While the high test score of post-test is 95 it is got by one student and the low test score is 5 it is got by one student and the total score is 1870. Therefore, from the data, it can be concluded that scores are increasing.

To find mean score, the researcher follows the formula:

$$\begin{aligned}
 M1 &= \frac{\Sigma Y2}{N} \\
 &= \frac{1870}{40} \\
 &= 46.75
 \end{aligned}$$

The average of the post-test in control class is 46.75 this is shows that there is the improvement from the pre-test

$$\begin{aligned}
 M2 &= \frac{\Sigma Y1}{N} \\
 &= \frac{1845}{40} \\
 &= 46.12
 \end{aligned}$$

The average of the pre-test in control class is 46.12 this is shows that listening comprehension of the students are less

$$\begin{aligned}
 M &= M1-M2 \\
 &= 46.75-46.12 \\
 &= 0.63
 \end{aligned}$$

From the data above, the improvement in control class are 0.63 points, it shows that the improvement of control class little.

Based on the calculation on the table 2 of pre-test and post-test assessment at control class, it shows that the cumulative value of assessment result before applying listening conversation is 1845. The average of the pre-test is 46.12. Meanwhile, the cumulative of assessment result after applying listening conversation is 1870. The average of the post test is 46.75.

From the calculation of determine mean above, we have known that the average score of pre-test and post-test at control class increase in amount 0.63.

B. Analysis of the Data

After getting the data, the researcher analyzed it by using statistic calculation of the determine data. The result of determine can be seen as follow:

Table 4.3

**Statistical Calculation on Gained Score of Experimental Class (X)
and Controlled Class (Y)**

NO	X	Y	x	Y	X ²	Y ²
1	20	-15	3.75	-15.625	14.0625	244.1406
2	5	5	-11.25	4.375	126.5625	19.14063

3	-5	20	-21.25	19.375	451.5625	375.3906
4	40	5	23.75	4.375	564.0625	19.14063
5	0	0	-16.25	-0.625	264.0625	0.390625
6	-5	10	-21.25	9.375	451.5625	87.89063
7	5	5	-11.25	4.375	126.5625	19.14063
8	-15	0	-31.25	-0.625	976.5625	0.390625
9	20	0	3.75	-0.625	14.0625	0.390625
10	55	15	38.75	14.375	1501.563	206.6406
11	20	-5	3.75	-5.625	14.0625	31.64063
12	-5	5	-21.25	4.375	451.5625	19.14063
13	-10	-5	-21.25	-5.625	451.5625	31.64063
14	20	-20	3.75	-20.625	14.0625	425.3906
15	20	-10	3.75	-10.625	14.0625	112.8906
16	15	0	-1.25	-0.625	1.5625	0.390625
17	5	-10	-11.25	-10.625	126.5625	112.8906
18	15	10	-1.25	9.375	1.5625	87.89063
19	35	10	18.75	9.375	351.5625	87.89063

20	15	0	-1.25	0.625	1.5625	0.390625
21	35	-15	18.75	-15.625	351.5625	244.1406
22	10	10	-6,25	9,375	39,0625	87,89063
23	20	10	3.75	9.375	14.0625	87.89063
24	-5	5	-21.25	4.375	451.5625	19.14063
25	5	5	-11.25	4.375	126.5625	19.14063
26	10	-10	-6.25	-10.625	39.0625	112.8906
27	-5	-10	-21.25	-10.625	451.625	112.8906
28	15	-15	-1.25	-15.625	1.5625	244.1406
29	35	-40	18.75	39.375	351.5625	1550.391
30	10	-5	-21.25	-5.625	39.0625	31.64063
31	20	-10	3.75	-10.625	14.0625	112.8906
32	15	25	-1.25	24.375	1.5625	594.1406
33	30	25	13.75	24.375	189.0625	594.1406
34	35	0	18.75	-0.625	351.5625	0.390625
35	55	-5	18.75	-5.625	1501.563	31.64063
36	-5	-20	-21.25	-20.625	451.5625	425.3906

37	25	0	8.75	-0.625	76.5625	0.390625
38	25	5	8.75	4.375	76.5625	0.390625
39	25	0	8.75	-0.625	76.5625	937.8906
40	40	-30	23.75	-30.625	564.0625	937.8906
Total	650	25			11087.5	7109.375
Average	16.25	0.625			277.1875	177.7344

The procedure of calculation as follows:

1. Determining mean of variable X (Experiment Class):

$$M_x = \frac{\sum fx}{N_x} = \frac{650}{40} = 16.25$$

2. Determining mean of variable Y (Control Class):

$$M_y = \frac{\sum fy}{y} = \frac{25}{40} = 0.625$$

3. Determining standard deviation of variable X:

$$SD_x = \sqrt{\frac{\sum fx^2}{N_x}} = \sqrt{\frac{11087.5}{40}} = \sqrt{277.1875} = 16.65$$

4. Determining standard deviation of variable Y:

$$SD_x = \sqrt{\frac{\sum fy^2}{N_y}} = \sqrt{\frac{7109.375}{40}} = \sqrt{177.7344} = 13.33$$

5. Determining standard error of mean variable X:

$$\begin{aligned} SE_{M_x} &= \frac{SD_x}{\sqrt{N-1}} = \frac{16.65}{\sqrt{40-1}} \\ &= \frac{16.65}{\sqrt{39}} = \frac{16.65}{6.24} = 2.67 \end{aligned}$$

6. Determining standard error of mean variable Y:

$$\begin{aligned} SE_{M_y} &= \frac{SD_y}{\sqrt{N-1}} = \frac{13.33}{\sqrt{40-1}} \\ &= \frac{13.33}{\sqrt{39}} = \frac{13.33}{6.24} = 2.14 \end{aligned}$$

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

$$\begin{aligned} SE_{M_x-M_y} &= \sqrt{SE_{M_x}^2 + SE_{M_y}^2} \\ &= \sqrt{2.67^2 + 2.14^2} \\ &= \sqrt{7.1289 + 4.5796} \\ &= \sqrt{11.707} \\ &= 3.42 \end{aligned}$$

8. Statistical t-test formula:

$$\begin{aligned} t_o &= \frac{M_x - M_y}{SE_{M_x - M_y}} \\ &= \frac{16.25 - 0.625}{2.045} \\ &= \frac{15.625}{2.045} \\ &= 7.640 \end{aligned}$$

9. Determining t_{table} in significance level 0.05, with df (degree of freedom)

$$df = (N_x + N_y) - 2 = (40 + 40) - 2 = 78$$

From the calculation above df value is 78 and from degree of significant value 0.05 or t is 1.66.

10. Effect Size measurement

$$d = \frac{(M_x - M_y)}{Pooled\ SD} = \frac{(16.25 - 0.625)}{14.99} = \frac{(15.625)}{14.99} = 1.045$$

*calculation of pooled:

$$\text{Pooled SD} = \frac{(SDx+SDy)}{2} = \frac{(16.65+13.33)}{2} = 14.99$$

Based on the calculation above, the result of d was 1.045 and compared by Cohen's guideline became $1.045 > 1.00$. it means that the effect of the independent variable was having strong effect.

Hypothesis Testing

From the calculation above, the calculated t-test of t_0 was 7.64 and the degree significance that was used for this research is 5% or 0.05, therefore from t_{table} it was 1.66.

By comparing the value of $t_0 = 4.56$ and t-table on degree significance 1.66 the writer sum up that t_0 is accepted and the null hypothesis (H_0) is rejected. It means that there positive effect on using video conversation in learning listening comprehension at the eighth grade students SMP N 17 Kota Serang.

C. Interpretation of the Data

In this research, the writer described the interpretation of the research finding and summarized the hypothesis. The research was held to answer the question how is students' listening comprehension before and after using conversation video in learning listening? Based on the data, the researcher analyze before using conversation video to know the students' listening comprehension, the researcher ask students to fill the listening comprehension to see the knowledge before given treatment. The average of student score was 45.87. After given treatment and using conversation video the students has improved

better, can be seen from the increase from the average of the student score was 62.12 are the description the student teaching listening consist of consistent write in vocabulary and language use errors, but the organization and mechanic understandable. From the result it can be concluded that using conversation video is effective on improving students in learning listening comprehension text at the second grade of SMPN 17 Kota Serang.

And the last, how is the effectiveness of using conversation video in learning listening comprehension at the 8th grade of SMPN 17 Kota Serang? In order to answer the question the writer formulated the Null hypothesis (H_0) and the Alternative Hypothesis (H_a) as follow:

H_a (Alternative Hypothesis) : There is a significant difference of students teaching listening between students who are taught using conversation video. and students who are taught without using conversation video.

H_0 (Null Hypothesis) : There is not significant difference of students teaching listening between students who are taught using conversation video and students who are taught without using conversation video.

The assumption of this hypothesis as follow:

If $t_o \geq t_{table}$ the Null Hypothesis is rejected and Alternative Hypothesis is Accepted.

The writer summarized that $t_o \geq t_{table}$ it means that the Null Hypothesis is rejected and the Alternative Hypothesis is Accepted. The

writer analyzed the result of calculation that H_o rejected and H_a is accepted.

Based on the data obtained from experimental class and control class the writer can be inferred that use conversation video has effect on students teaching listening comprehension.

Based on the data above, it has found that the increasing of teaching listening caused by using conversation video. to solve the problem that has thought in the statement of problem. So that, the writer used conversation video to teach listening comprehension by content area in which the students can interpret the text based on the context.