

## **CHAPTER IV**

### **RESEARCH FINDING ANG DISCUSSION**

#### **A. Description of The Research**

To find out the difference between the students who are taught by using music performance and the students who are not taught by using music performance in cardinal and ordinal number, especially in SDN 01 Manggungsari Weleri Kendal, the writer did an analysis of quantitative data. The data is obtained giving test to the experimental class and control class after giving a different learning both classes.

The subjects of this research were divided into three classes. They are experimental class (V A), control class (V B) and try out class (VI A). Before items were given to the students, the writer gave tryout test to analyze validity, reliability, difficulty level and also the discrimination power of each item. The writer prepared 25 items as the instrument of the test. Test given before and after the students follow the learning process that was provided by the writer.

Before the activities are conducted, the writer determined the materials and lesson plan of learning. Learning in the experimental class used music performance, while the control class without used music performance.

After the data were collected, the writer analyzed it. The first analysis data is from the beginning of control class and experimental class that is taken from the pre test value. It is the normality test and homogeneity test. It is used to know that two groups are normal and have same variant. Another analysis data is from the ending of control class and experimental class. It is used to prove the truth of hypothesis that has been planned.

## **B. The Activities of Experimental and Control Group**

### **1. Activities in Experimental Group and Control Group**

#### **a. Experimental Group**

##### **First Meeting:**

In opening the class, teacher greeted the students and checked the attendance list. Then, told the topic of the day followed by giving introduction about the material by asking some questions, like, “Do you know cardinal number? Have you ever counting?” And students answered these questions orally.

Because teacher used music performance as teaching medium, so teacher gave explanation about it. After that, teacher explained about cardinal number. Teacher also did not forget to give the example of cardinal number. After students understood the material, the teacher gave songs about cardinal number.

To know the students’ comprehension of the material which has been given, teacher asked students to sing cardinal number and answers some questions. After that, teacher chose some students to come forward and to sing the songs.

And the last, teacher sang together with students the songs and gave suggestions to students to study hard and memorized the new material. Finally, teacher closed the class.

##### **Second Meeting:**

Same with the first meeting, teacher opened the class by greeting the students and checking the attendance list. Teacher reminded students about the previous lesson by asking students to mention some examples of cardinal number. Students answered orally. After it the teacher asked students to make groups, each group consist of 3 students. Then the students sang cardinal number song. After it, the teacher chose some students to write the answer in front of the class.

Teacher concluded together with the students the material today and gave suggestions to students to study hard and memorized the new material. Finally, teacher closed the class.

Third meeting:

In third meeting, teacher greeted the students and checked the attendance list. Then, told the topic of the day followed by giving introduction about the material by asking some questions, like, “Do you know ordinal number? Have you ever counting?” And students answered these questions orally.

Because teacher used music performance as teaching medium, so teacher gave explanation about it. After that, teacher explained about ordinal number. Teacher also did not forget to give the example of ordinal number. After students understood the material, the teacher gives songs about ordinal number.

To know the students’ comprehension of the material which has been given, teacher asked students to sing ordinal number and answers some question. After that, teacher chose some students to come forward and to sing the songs.

And the last, teacher sang together with students the songs and gave suggestions to students to study hard and memorized the new material. Finally, teacher closed the class.

Fourth Meeting:

Same with the previous meeting, teacher opened the class by greeting the students and checking the attendance list. Teacher reminded students about the previous lesson by asking students to mention some examples of ordinal number. Students answered orally. After it the teacher asked students to make groups, each group consist of 3 students. Then the students sang ordinal number song. After it, the teacher chose some students to write the answer in front of the class.

Teacher concluded together with the students the material today and gave suggestions to students to study hard and memorized the new material. Finally, teacher closed the class.

b. Control Group

First Meeting:

At the first meeting, teacher greeted students and checked the attendance list. Teacher told the topic of that day to students and also introduced the material by asking some questions: “Do you know cardinal number? Have you ever counting?” And students answered these questions orally.

After stimulated students about the material, teacher started to explain the definition cardinal number. Then, teacher gave the example of cardinal number.

For the next activity, same with the experimental class teacher gave some examples of cardinal number and asked the student to write down on the black board. After that, analyzed the answer together.

After that activity, teacher wanted to know the students’ understanding about cardinal number. So, teacher gave some assignment and asked students to write down in their book. Then teacher pointed some students to write it on black board.

At the end of the lesson, teacher did not forget to review the material on that day and gave students suggestion to study hard and memorized the new material. Finally, teacher closed the class.

Second meeting:

Same with the first meeting, in opening, teacher greeted students and checked the attendance list. Next, teacher told students about the topic of that day and also reminded students about the previous lesson.

After that, teacher gave paper that contains cardinal number and asked to the student to read loudly together. After students read it, Teacher asked students to spell together the cardinal number. After that, they were asked to answer the question on the paper. For the next activity, to know students understanding on cardinal number teacher asked to students to answer other examples by themselves. Then teacher pointed some students to write it on black board. Teacher discussed the student's work clearly.

Teacher reviewed the materials and gave time to students to ask some questions. And finally, teacher closed the class.

Third Meeting:

At the third meeting, teacher greeted students and checked the attendance list. Teacher told the topic of that day to students and also introduced the material by asking some questions: "Do you know ordinal number? Have you ever counting?" And students answered these questions orally.

After stimulated students about the material, teacher started to explain the definition cardinal number. Then, teacher gave the example of ordinal number.

For the next activity, same with the experimental class teacher gave some examples of ordinal number and asked the student to write down on the black board. After that, analyzed the answer together.

After that activity, teacher wanted to know the students' understanding about ordinal number. So, teacher gave some assignment and asked students to write down in their book. Then teacher pointed some students to write it on black board.

At the end of the lesson, teacher did not forget to review the material on that day and gave students suggestion to study hard and memorized the new material. Finally, teacher closed the class.

Fourth meeting:

Same with the previous meeting, in opening, teacher greeted students and checked the attendance list. Next, teacher told students about the topic of that day and also reminded students about the previous lesson.

After that, teacher gave paper that contains ordinal number and asked to the student to read loudly together. After students read it, Teacher asked students to spell together the ordinal number. After that, they were asked to answer the question on the paper. For the next activity, to know students understanding on ordinal number teacher asked to students to answer other examples by themselves. Then teacher pointed some students to write it on black board. Teacher discussed the student's work clearly.

Teacher reviewed the materials and gave time to students to ask some questions. And finally, teacher closed the class.

### **C. The Data Analysis and Test of Hypothesis**

#### **1. First Analysis**

The first analysis represents the result of try out test that was done in the try out class. This analysis is used to make an instrument. This discussion covers validity, reability, level of difficulty and discriminating power.

##### **a. Validity of Instrument**

As mentioned in chapter III, validity refers to the precise measurement of the test. In this study, item validity is used to know the index validity of the test. To know the validity of instrument, the writer used the Pearson product moment formula to analyze each item.

It is obtained that from 25 test items; there are 21 test items which are valid and 4 test items which are invalid. They are on number 1, 4, 11,

18 . They are to invalid with the reason the computation result of their  $r_{xy}$  value (the correlation of score each item) is lower than their  $r_{table}$  value.

The following is the example of item validity computation for item number 2 and for the other items would use the same formula.

$$N = 30 \qquad \sum Y = 493$$

$$\sum XY = 385 \qquad \sum X^2 = 22$$

$$\sum X = 22 \qquad \sum Y^2 = 8655$$

$$r_{xy} = \frac{N \sum XY - \sum (X) \sum (Y)}{\sqrt{\{N \sum X^2 - (\sum X)^2\} \{N \sum Y^2 - (\sum Y)^2\}}}$$

$$r_{xy} = \frac{30 (385) - (22)(493)}{\sqrt{\{(30)(22) - 22\} \{30(8655) - (493)^2\}}}$$

$$r_{xy} = 0,412$$

From the computation above, the result of computing validity of the item number 2 is 0.412. After that, the writer consulted the result to the table of r Product moment with the number of subject (N) = 30 and significance level 5% it is 0.361. Since the result of the computation is higher than r table, the index of validity of the item number 2 is considered to be valid.

#### b. Reability of Instrument

A good test must be valid and reliable. Beside the index of vally, the writer calculateed the reliability of the test using Kuder Richarson formula 20(K-R 20).

Before computing the reliability, the writer had to compute Varian( $S^2$ ) with the formula bellow:

$$N = 30 \qquad \sum Y = 493$$

$$\sum Y^2 = 8655 \qquad \sum pq = 4.848$$

$$S^2 = \frac{\sum y^2 - \frac{(\sum y)^2}{N}}{N}$$

$$S^2 = \frac{8655 - \frac{243049}{30}}{30}$$

$$S^2 = 18.446$$

The computation of the Varian ( $S^2$ ) is 18.446 . After finding the Varian ( $S^2$ ) the writer computed the reliability of the test as follows:

formula:

$$r_{11} = \left( \frac{n}{n-1} \right) \left( \frac{S^2 - \sum pq}{S^2} \right)$$

$$r_{11} = \left( \frac{30}{30-1} \right) \left( \frac{18.446 - 4.848}{18.446} \right)$$

$$r_{11} = 1.034 \left( \frac{13.598}{18.446} \right)$$

$$r_{11} = 0.768$$

The result shows that 0.768 is more than 0.361, it mean that the items of instrument were reliable.

#### c. The Level of Difficulty

The following is the computation of the level difficulty for item number 2 and for the other items would use the same formula.

$$B = 22$$

$$JS = 30$$

$$P = \frac{B}{JS} \quad P = \frac{22}{30}$$

$$P = 0.733$$



It is proper to say that the index difficulty of item number 2 above can be said as the easy category, because the calculation result of the item number 2 is in the interval  $0.70 \leq p \leq 1.00$ .

After computing 25 items of the try-out test, there are 11 items are considered to be easy, 13 items are medium and 1 item is difficult. The whole computation result of difficulty level can be seen in appendix 4.

d. The Discriminating Power

The discrimination power of an item indicated the extent to which the item discriminated between the testees, separating the more able testees from the less able. The index of discriminating power told us whether those students who performed well on the whole test tended to do well or badly on each item in the test. To do this analysis, the number of try-out subjects was divided into two groups, upper and lower groups.

The following is the computation of the discriminating power for number 2, and for other items would use the same formula.

$$BA= 13 \quad BB= 9$$

$$JA= 15 \quad JB= 15$$

$$D= \frac{BA}{JA} - \frac{BB}{JB}$$

$$D= \frac{13}{15} - \frac{9}{15}$$

$$D= 0.267$$

According to the criteria, the item number 2 above is enough category, because the calculation result of the item number 2 is in the interval  $D \leq 0.40$ .

After computing 25 items of try-out test, there are 3 items are considered to be good, 18 items are enough, and 4 items are poor. The result of the discriminating power of each item could be seen appendix 4.

Based on the analysis on validity, reliability, difficulty level and discriminating power, finally 21 items are accepted. From 21 items, only 20 items are used as instrument to make the scoring easy. They are number 2, 3, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 17, 19, 20, 21, 22, 23, 24, 25.

## **2. Second Analysis**

The second analysis represents the result of pre-test and post-test that was done both in experimental and control group. This analysis will answer the research question “ How is the effectiveness of using music performance to teach cardinal and ordinal number? we can conclude music performance is effective when the result of post test of experimental class (using music performance as medium) and control class (using conventional technique) has significant differences.

Before the researcher tested the hypothesis that had been mentioned in the capter two, the researcher analyzed and tested hypothesis prerequisites which contained of normality test and homogeneity test. Second analysis dealt with normality test, homogeneity test, and t-test (test of difference two variants) in pre-test and post-test.

### **a. Analysis of Pre-test**

The experimantal group (Class V A) was given a pre- test on 15 November, 2011 and control group (Class V B) was given a pre-test on 15 November, 2011.

#### **1) Test of Normality**

Test of normality was used to find out whether data of control and experimental group which had been collected from the research come from normal distribution or not. The result computation of Chi-square ( $X^2_{score}$ ) then was compared with table of Chi- square ( $X^2_{table}$ ) by using 5% alpha of significance. If  $X^2_{score} < X^2_{table}$  meant that the data spread of research result distributed normally.

Based on the result of V A students in experimental group, before they were taught cardinal and ordinal number by using music performance , was found that the maximum score was 95 and minimal score was 45. The streches of score were 40. So, there were 6 classes with lenght of classes 9. From the computation of frequency distribution, it was found ( $\sum f_i x_i$ )= 1938 and ( $\sum f_i x_i^2$ ) = 129720. So, the average score ( $\bar{X}$ ) was 64.6 and the standard deviation (S) was 12.50. After counting the average score and standard deviation, table of Frequency Distribution was needed to measure Chi-Square ( $X^2_{score}$ ).

**Table 5. Table of the Frequency Distribution of Class V A**

Class	Limited of Class	Z to limited class	Probability of Z	Wide to Z	Ei	Oi	$\frac{(O_i - E_i)^2}{E_i}$
	44.5	-1.61	-0.4462				
45 – 53				0.1333	4.0	5	0.2504
	53.5	-0.89	-0.3129				
54 – 62				0.2461	7.4	9	0.3536
	62.5	-0.17	-0.0668				
63 – 71				0.2764	8.3	8	0.0103
	71.5	0.55	0.2097				
72 – 80				0.1888	5.7	5	0.0779
	80.5	1.27	0.3985				
81 – 89				0.0784	2.4	2	0.0529
	89.5	1.99	0.4769				
90 – 98				0.0198	0.6	1	0.2782
	98.5	2.71	0.4967				
				$\chi^2_{count}$		=	1.0233

Based on the Chi-Square table ( $X^2_{table}$ ) for 5% alpha of 5% significance with df 6-1= 5, it was found  $X^2_{table} = 11.07$ . Because of  $X^2_{score} < X^2_{table}$  , so the data of control group distributed normally.

While from the research result of V B students in control group before they were taught cardinal and ordinal number without music performance they reached the maximum score and minimum score. The stretches of score were. So, there were 6 classes with length of classes 6. From the computation of frequency distribution, it was found  $(\sum f_i x_i) = 1982$ , and  $(\sum f_i x_i^2) = 136988$ . So, the average score ( $\bar{X}$ ) was 66.07 and the standard deviation (S) was 14.4. After counting the average score and standard deviation, table of Frequency Distribution was needed to measure Chi-Square ( $X^2_{score}$ ).

**Table 6. Table of the Frequency Distribution of Class V B**

Class	Limited of Class	Z to limited class	Probability of Z	Wide to Z	Ei	Oi	$\frac{(O_i - E_i)^2}{E_i}$
	24.5	-2.88	-0.4980				
25–45				0.0751	2.3	2	0.0287
	45.5	-1.42	-0.4229				
46–56				0.1766	5.3	5	0.0169
	56.5	-0.66	-0.2462				
57–67				0.2858	8.6	9	0.0212
	67.5	0.10	0.0395				
68–78				0.2659	8.0	8	0.0001
	78.5	0.86	0.3054				
79–89				0.1423	4.3	5	0.1254
	89.5	1.62	0.4477				
90–100				0.0437	1.3	1	0.0742
	100.5	2.39	0.4915				
					$\chi^2_{count}$	=	0.2665

Based on the Chi-Square table ( $X^2_{table}$ ) for 5% alpha of 5% significance with df 6-1= 5, it was found  $X^2_{table} = 11.07$ . Because of  $X^2_{score} < X^2_{table}$ , so the data of control group distributed normally.

## 2) Test of Homogeneity

Test of homogeneity was done to know whether sample in the research come from population that had same variance or not. In this study, the homogeneity of the test was measured by comparing the obtained score ( $F_{score}$ ) with  $F_{table}$ . Thus, if the obtained score ( $F_{score}$ ) was lower than the  $F_{table}$  or equal, it could be said that the  $H_0$  was accepted. It meant that the variance was homogeneous.

**Table 7. Test of Homogeneity**

Variant Sources	Control G	Experimental G
Sum	1965	1955
N	30	30
$\bar{X}$	65.50	65.17
Variants ( $S^2$ )	176.47	162.90
Standard Deviation	13.28	12.76

By knowing the mean and the variance, the writer was able to test the similarity of the two variants in the pre-test between experimental and control group. The formula of the test of homogeneity as follows:

$$\begin{aligned} F &= \frac{\text{Biggest Variance}}{\text{Smallest Variance}} \\ &= 176.47 / 162.90 \\ &= 1.083 \end{aligned}$$

On a 5% with df numerator ( $nb-1$ ) =  $30-1 = 29$  and df denominator ( $nk-1$ ) =  $30-1 = 29$ , it was found  $F_{table} = 1.85$ . Because of  $F_{score} \leq F_{table}$ , so it could be concluded that both experimental and control group had no differences. The result showed both groups had similar variants (homogenous).

### 3) Test of Difference Two Variants in Pre-test Between Experimental and Control Group.

After counting standard deviation and variance, it could be concluded *that* both group have no differences in the test of similarity between two variances in pre-test score. So, to differentiate whether the students' result of cardinal and ordinal number in experimental and control group were significant or not, the writer used t-test to test the hypothesis that had been mentioned in the chapter two. The writer used formula:

$$t = \frac{\overline{X}_1 - \overline{X}_2}{S \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

Where:

$$S = \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}}$$

Based on the table IV. First the writer had to find out S by using the formula above:

$$S = \sqrt{\frac{(30-1)162.9 + (30-1)176.46}{30+30-2}}$$

$$S = 13.026$$

After S was found, the next step was to measure t-test:

$$t = \frac{65.167 - 65.50}{13.026 \sqrt{\frac{1}{30} + \frac{1}{30}}}$$

$$= -0.099$$

After getting t-test result, then it would be consulted to the critical score of  $t_{table}$  to check whether the difference is significant or not. For  $\alpha = 5\%$  with  $df = 30+30-2 = 58$ , it was found  $t_{table} = 2.0$ .

Because of  $t_{\text{score}} < t_{\text{table}}$ , so it could be concluded that there was no significance of difference between the experimental and control group. It mean that both experimental and control group had same condition before getting treatments.

## **b. Analysis of Post-test**

The experimental group was given post test on November 29, 2011 and control group was given a post test on November 29, 2011. Post-test was conducted after all treatments were done. Music performance were used as media in the teaching of cardinal and ordinal number to students in experimental group. While for students in control group, they were given treatments without music performance. Post-test was aimed to measure students' ability after they got treatments.

### **1) Test of Normality**

Test of normality was used to find out whether data of control and experimental group which had been collected from the research come from normal distribution normal or not. The result computation of Chi-square ( $X^2_{\text{score}}$ ) then was compared with table of Chi-square ( $X^2_{\text{table}}$ ) by using 5% alpha of significance. If  $X^2_{\text{score}} < X^2_{\text{table}}$  meant that the data spread of research result distributed normally.

Based on the result of VA students in experimental group, before they were taught cardinal and ordinal number by using music performance, was found that the maximum score was 100 and minimal score was 60. The streches of score were 40. So, there were 6 classes with lenght of classes 7.

From the computation of frequency distribution, it was found  $(\sum f_i x_i) = 2418$  and  $(\sum f_i x_i^2) = 198697$ . So, the average score ( $\bar{X}$ ) was 80.6 and the standard deviation (S) was 11.4556. After counting the

average score and standard deviation, table of Frequency Distribution was needed to measure Chi-Square ( $X^2_{\text{score}}$ ).

**Table 8. Table of the Frequency Distribution of Class V A**

Class	Limited of Class	Z to limited class	Probability of Z	Wide to Z	Ei	Oi	$\frac{(O_i - E_i)^2}{E_i}$
	59.5	-1.84	-0.4673				
60 – 66				0.0764	2.3	3	0.2177
	66.5	-1.23	-0.3908				
67 – 73				0.1585	4.8	7	1.0596
	73.5	-0.62	-0.2323				
74 – 80				0.2288	6.9	8	0.1878
	80.5	-0.01	-0.0035				
81 – 87				0.2300	6.9	3	2.2044
	87.5	0.60	0.2265				
88 – 94				0.1610	4.8	3	0.6931
	94.5	1.21	0.3875				
95 – 102				0.0845	2.5	6	4.7311
	102.5	1.91	0.4720				
				$\chi^2_{\text{count}}$		=	9.0938

Based on the Chi-Square table ( $X^2_{\text{table}}$ ) for 5% alpha of significance with df  $6-1=5$ , it was found  $X^2_{\text{table}} = 11.7$ . Because of  $X^2_{\text{score}} < X^2_{\text{table}}$ , so the data of control group distributed normally.

While from the research result of V B students in control group after they got usual treatment, they reached the maximum score 95 and minimum score 25. The stretches of score were 70. So, there were 6 classes with length of classes 12. From the computation of frequency distribution, it was found  $(\sum f_i x_i) = 2195$ , and  $(\sum f_i x_i^2) = 166760$ . So, the average score ( $\bar{X}$ ) was 73.167 and the standard deviation (S) was 14.56. It mean that there was an improvement of students' score after they got treatments. After counting the average



score and standard deviation, table of Frequency Distribution was needed to measure Chi-Square ( $X^2_{score}$ ).

**Table 9. Table of the Frequency Distribution of Class V B**

Class	Limited of Class	Z to limited class	Probability of Z	Wide to Z	Ei	Oi	$\frac{(O_i - E_i)^2}{E_i}$
	24.5	-3.34	-0.4996				
25 – 46				0.0331	1.0	1	0.0000
	46.5	-1.83	-0.4665				
47 – 58				0.1234	3.7	2	0.7821
	58.5	-1.01	-0.3431				
59 – 70				0.2704	8.1	10	0.4387
	70.5	-0.18	-0.0727				
71 – 82				0.3119	9.4	7	0.5937
	82.5	0.64	0.2392				
83 – 94				0.1893	5.7	8	0.9480
	94.5	1.47	0.4286				
95 – 107				0.0623	1.9	2	0.0094
	107.5	2.36	0.4908				
				$\chi^2_{count} =$			0.0094

Based on the Chi-Square table ( $X^2_{table}$ ) for 5% alpha of significance with df  $6 - 1 = 5$ , it was found  $X^2_{table} = 11.07$ . Because of  $X^2_{score} < X^2_{table}$ , so the initial data of control group distributed normally.

## 2) Test of Homogeneity

The writer determined the mean and variance of the students' score either in experimental of control group. By knowing the mean and variance, the writer was able to test the similarity of the two variance in the post-test between experimental and control group.

**Table 10. Test of Homogeneity**

Variant Sources	Control G	Experimental G
Sum	2195	2400
N	30	30
X <sup>-</sup>	73.16	80.00
Variants (S <sup>2</sup> )	209.45	122.41
Standard Deviation	14.47	11.06

The formula of the test of homogeneity as follows:

$$\begin{aligned} F &= \frac{\text{Biggest Variance}}{\text{Smallest Variance}} \\ &= 209.45 / 122.41 \\ &= 1.71105 \end{aligned}$$

On a 5% with df numerator (nb-1)= 30-1= 29 and df denominator (nk-1) = 30-1 = 29, it was found  $F_{table} = 1.85$ . Because of  $F_{score} \leq F_{table}$ , so it could be concluded that both experimental and control group had no differences. The result showed both groups had similar variants (homogenous).

### **3) Test of Difference Two Variants in Post-test Between Experimental and Control Group**

After counting standard deviation and variance, it could be concluded that both group have no differences in the test of similarity between two variances in pre-test score. So, to differentiate the students' result of cardinal and ordinal number in experimental and control group after getting treatments were significant or not, the writer used t-test to test the hypothesis that had been mentioned in the chapter two. The writer used formula:

$$t = \frac{\overline{X}_1 - \overline{X}_2}{S \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

Where:

$$S = \sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}}$$

Based on the table VI. First the writer had to find out S by using the formula above:

$$\begin{aligned} S &= \sqrt{\frac{(30-1)122.41 + (30-1)209.45}{30+30-2}} \\ &= 12.881 \end{aligned}$$

After S was found, the next step was to measure t-test:

$$\begin{aligned} t &= \frac{80.00 - 73.17}{12.881 \sqrt{\frac{1}{30} + \frac{1}{30}}} \\ &= 2.055 \end{aligned}$$

After getting t-test result, then it would be consulted to the critical score of  $t_{table}$  to check whether the difference is significant or not. For  $\alpha = 5\%$  with  $df = 30 + 30 - 2 = 58$ , it was found  $t_{table (0.95)(60)} = 1.67$ . Because of  $t_{score} > t_{table}$ , so it could be concluded that there was no significance of difference between the experimental and control group. It meant that both experimental and control group had same condition before getting treatments.

Since the obtained t-score was higher than the critical score on the table, the difference was statically significance. Therefore, based on the computation there was a significance difference in cardinal and ordinal number achievement score between students were taught using music performance and those taught without using music performance for the fifth grade of SDN 01 manggungsari Weleri, Kendal. So, it can be said

that using music performance is effective to teach cardinal and ordinal number, and so the action hypothesis is accepted.

#### **D. Discussion of Research Finding**

The result of the research shows that the experimental class (the students who are taught using music performance) has the mean value 80.00. Meanwhile, the control class (the students who are taught without using music performance) has the mean value 73.16. It can be said that the test score of cardinal and ordinal number of experimental class is higher than the control class.

On the other hand, the test of hypothesis using t-test formula shows the value of t-test is higher than critical value. The value of t-test is 2.055 while the critical value on  $t_{s\ 0.05}$  is 1.67. It means that there is significant difference the achievement in cardinal and ordinal number score between students taught music performance and those taught without using music performance. In this case, the use of music performance is necessary needed in teaching cardinal and ordinal number.

Music performance is an effective media to teach cardinal and ordinal number. There are some reasons why music performance is effective to teach cardinal and ordinal number. They are as follows:

1. By using music performance, the students will have encouragement and curiosity to understand of cardinal and ordinal number.
2. The teaching of cardinal and ordinal number using music performance can give motivation and interact students' enthusiasm.
3. By using music performance, the students able to remember cardinal and ordinal number easily.
4. The teaching of cardinal and ordinal number using music performance can make condition in classroom relaxes and enjoy.

In contrast, not all students have good understanding of cardinal and ordinal number. Those are caused by some factors that influence the students in learning English. They are as follows:

1. The perception that English is the difficult lesson in school.
2. A poor motivation from the students to learn English seriously.
3. There is no big willingness to learn English.
4. Students supposed that English language is not used in the daily activities.

In this research, the writer used music performance to teach cardinal and ordinal number at SDN 01 Manggungsari Weleri Kendal. So, the research findings are only representative in that school. The writer hopes that more researches will be done by the others to prove this method to teach cardinal and ordinal number. And to find out other methods in learning and teaching English.

#### **E. Limitation of the Research**

The researcher realize that this research had not been done optimally. There were obstacles faced during the reasearch process.

Some limitations of this research are:

1. The researcher's ability

The resarcher realize that the implementation of the research process was less smooth; this was more due to lack of the researcher's experience and knowledge.

2. Limitation of time

Relative short of research time makes this research could not be done maximally.

3. Limitation of application

In this research, the researcher only gave two times treatment to the experiment class, so the result of the research was not maximal.

4. Limitation of the design

In this research, the researcher used short design. So, the research can not be done maximally.

Considering all those limitations, there is a need to do more research about teaching cardinal and ordinal number by using music performance so that the more optimal result will be gained.