

CHAPTER IV

FINDINGS AND DISCUSSION

A. Findings

1. The Description About Students' Writing Achievement That is Taught with Cooperative Integrated Reading and Composition (CIRC) Strategy and without Cooperative Integrated Reading and Composition (CIRC) Strategy

To know students' achievement in writing, the writer conducted two writing tests to different subject. The subject of the research is the ninth grade students of SMP Negeri 23 Banjarmasin in year 2016/2017 which consist of 34 students of class IX D and 34 students of class IX F. Class IX F is chosen as experimental class which is given treatment with using CIRC and class IX D as control class which is given treatment without using CIRC in teaching learning process.

The research in experimental group was conducted on November 5th, 2016, taken by 34 students, 15 male students and 19 female students. Whereas in control group the test was held on November 8th, 2016, and taken by 34 students, 12 male students and 22 female students. The test requires the students to write down a report text in 100 words in 90 minutes, by choosing one of the topics given.

a. Students' Writing Achievement that is Taught with Cooperative Integrated Reading and Composition (CIRC) Strategy

The test result of experimental class which is taught with Cooperative Integrated Reading and Composition (CIRC) strategy can be seen in this table

Table 4.1 Students' Score of Experimental Class

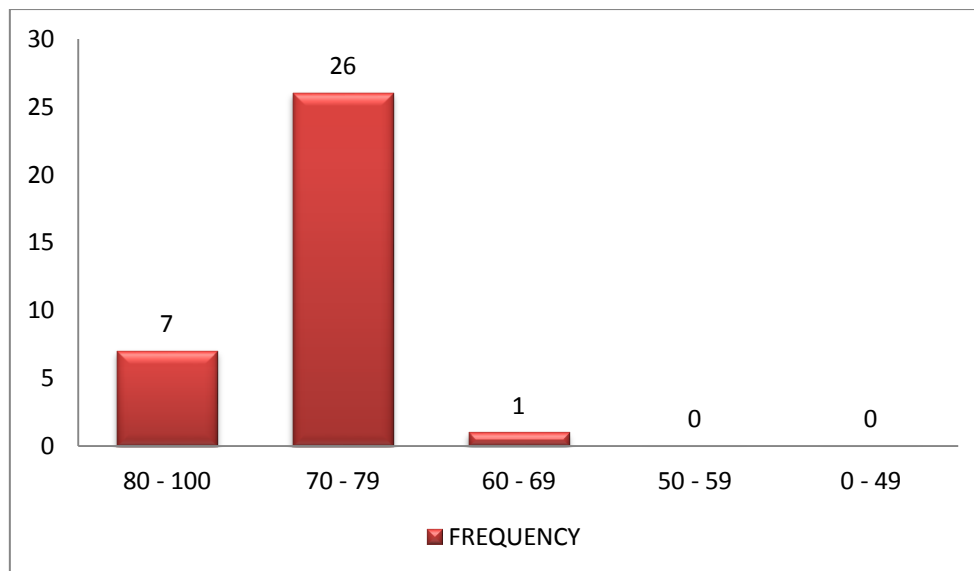
Students' number	Score	Students' number	Score
1	80	18	79
2	70	19	72
3	73	20	71
4	78	21	86
5	75	22	72
6	74	23	64
7	79	24	70
8	78	25	78
9	90	26	76
10	78	27	87
11	74	28	81
12	74	29	72
13	71	30	70
14	73	31	77
15	82	32	71
16	71	33	90
17	74	34	76

<p>Total Score = 2586</p>

Based on the result of writing achievement of experimental class, it is found the data that the highest score in the test is 90 and the lowest score is 64. Then, the accumulated score is 2586

The frequency distribution of students' score and the classification can be seen on these graphs and tables below:

Graph 4.1 Frequency of the Students' Scores of Experimental Class.



Based on this graph it is known that 26 students get score 70 – 79, meaning high category.

Table 4.2 The Result of Writing Test in Experimental Class

Score	Category	Number of Students	Percentage (%)
80-100	Excellent	7	20,58%
70-79	Good	26	76,47%
60-69	Fair	1	2,94%
50-59	Poor	-	0%
<50	Fail	-	0%
Total		34	100%
Average Score		76.06	Good

Based on the table above there are 7 students (20,58%) got the excellent score, 26 students (76,47%) got the good score, and 1 student (2,94%) got fair. The average of students' scores are 76.06 meaning good, which is known from score below

$$M = \frac{\sum X}{N}$$

$$M = \frac{2586}{34}$$

$$M = 76.06$$

Based on the data above, the total score is 76.06 of 34 students. The average score is 76.06 shows that the students' writing achievement that is taught with Cooperative Integrated Reading and Composition (CIRC) strategy in SMPN 23 Banjarmasin year 2016/2017 is categorized into good category.

b. Students' Writing Achievement that is Taught without Cooperative Integrated Reading and Composition (CIRC) strategy

The test result of control class which is taught without Cooperative Integrated Reading and Composition (CIRC) strategy can be seen in this table

Table 4.3 Students' Score of Control Class

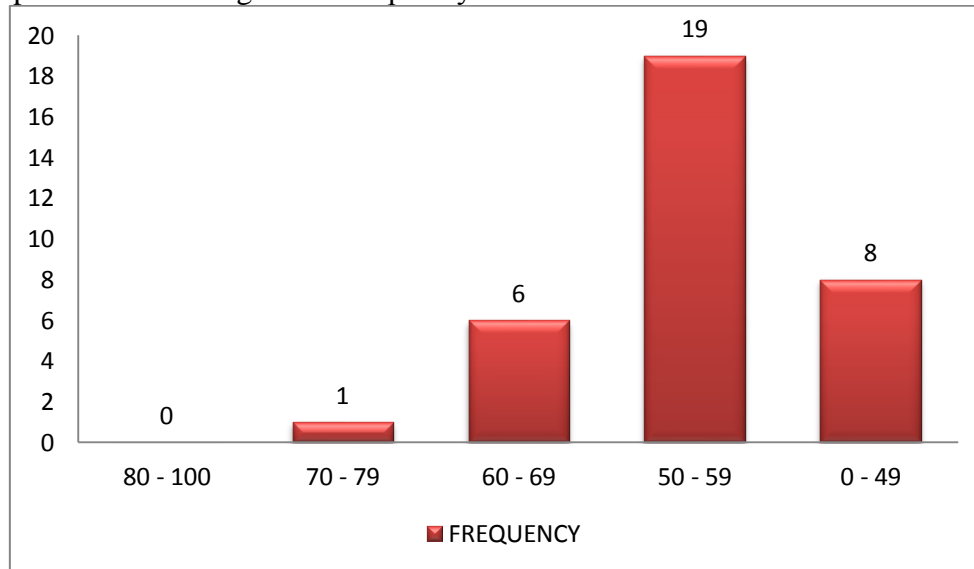
Students' number	Score	Students' number	Score
1	65	18	62
2	54	19	57
3	52	20	41
4	54	21	51
5	43	22	57
6	64	23	47
7	38	24	78
8	56	25	58
9	53	26	57
10	62	27	55
11	33	28	64
12	53	29	54
13	35	30	48
14	57	31	57
15	49	32	58

16	59	33	67
17	52	34	58
Total Score = 1848			

Based on the result of writing achievement of control class, it is found the data that the highest score in the test is 78 and the lowest score is 33, and the accumulated score is 1848

The frequency distribution of students' score and the classification can be seen on these histogram, polygon and table below:

Graph. 4.2 The Histogram of frequency of the students' scores of Control Class.



Thus, 19 students have the highest score, 50 59

Table 4.4 The Result of Writing Test in Control Class

Score	Category	Number of Students	Percentage (%)
80-100	Excellent	-	0%
70-79	Good	1	2.94%
60-69	Fair	6	17.65%
50-59	Poor	19	55.88%
<50	Fail	8	23.53%
Total		34	100%
Average Score		54.35	Poor

In the table above, there are 1 student was in good level (2,94%), 6 students were in fair level (17,65%), 19 students were in poor level (55,88%), and 8 students were in fail level (23,53%). It is known that students' total score is 1848, and the average is:

$$M = \frac{\sum X}{N}$$

$$M = \frac{1848}{34}$$

$$M = 54.35$$

Based on the data above, the total score is 1848 of 34 students. The average score is 54.35 shows that the students' writing achievement that is taught without Cooperative Integrated Reading and Composition (CIRC) strategy in SMPN 23 Banjarmasin year 2016/2017 is categorized into poor category.

2. Data Analysis

a. Teacher and Students' Performance

Observation sheet is the next instrument in this research. In the implementation, observation sheet was done by researcher. The researcher observed the process of teaching and learning in both of experiment and control class. Based on the observation, teacher performance can be explained as follows.

Before the cooperative learning type called cooperative integrated reading and composition was applied, in pre-activity the teacher greeted and checked the attendance list of the students. Then, at the beginning he showed some pictures or media that were related to the material and asked some related questions and the students answered him quite actively. After that, he told the lesson objective to the students.

The next step was while activity. In this step, the teacher gave the example of report text and explained it. He explained the material very well. The generic structures of report text were elaborated one by one. He asked the students whether they understood it or not. Then, he explained by the cooperative learning type cooperative integrated reading and composition (CIRC).

In doing the exercise on report text, cooperative learning type which is cooperative integrated reading and composition (CIRC) was applied. This activity was still in the while-activity. First, the teacher divided the students into a group consisted of 4-5 students. Second, he distributed reading text to each group. Then, he asked the group to read the text and then gave some questions to find out their

understanding about the text. In group task, they were competing one another, students' winning group got reward for their success.

Then, the teacher discussed students' group work and he gave his comments or corrections on the students' work. Finally, in the post-activity, the students' understanding is evaluated by making a composition in report text.

Meanwhile, in the control class, the teacher used traditional strategy. The material or the topic was the same with experiment class that was report text. In the pre-activity the teacher greeted and checked the attendance list of the students. At the beginning he showed an example of report text. Then, he asked the students about related material and the students answered. He also did not forget to tell the lesson objective at the time.

In the while-activity the teacher explained and told them the generic structures of report text. Then, he gave exercise and asked them to do the exercise individually. He distributed the topic and asked the students to make a report text based on the topic given. Then, he helped them in doing their exercise.

After they had finished doing the exercise, the teacher discussed students' work and gave some comments or corrections. In the post-activity, the teacher reviewed the lesson by asking some related questions, like "what is report text". Finally, he evaluated the students about report text too.

The results of the observation sheet of teacher's performance and students' performance are presented in the table 4.5

Table 4.5 The Interpretation of Teacher's and Students' Performance

	Experiment Class	Control Class
Teachers' Performance	90%	82.5%
Students' Performance	95 %	95%

Therefore, based on the percentage of the observation sheet that has been done by the researcher, it can be concluded that teaching and learning process in experiment and control class is in accordance with the lesson plans made.

b. Students' Test

To know the comparative between students' writing achievement between students who are taught with using cooperative learning type called Cooperative Integrated Reading Composition (CIRC) and those who are taught without using CIRC at the ninth grade students of SMP Negeri 23 Banjarmasin in year 2016/2017, the writer uses "t-test". After all the collected data have been learning processed, the researcher analyzed them and made conclusion by using the "t-test" formula.

1. Based on the result of the writing test, the researcher calculates the mean and standard deviation of Variable X (experimental class) and Variable Y (control class).

Table 4.6 Accounting of Mean and Standard Deviation of Variable X

Score (X)	Frequency (f)	fX	Deviation $x = X - M$	x^2	fx^2
90	2	180	13.94	194.3236	388.6472
87	1	87	10.94	119.6836	119.6836

86	1	86	9.94	98.8036	98.8036
82	1	82	5.94	35.2836	35.2836
81	1	80	3.94	15.5236	15.5236
80	1	81	4.94	24.4036	24.4036
79	2	158	2.94	8.6436	17.2872
78	4	312	1.94	3.7636	15.0544
77	1	77	0.94	0.8836	0.8836
76	2	152	-0.06	0.0036	0.0072
75	1	75	-1.06	1.1236	1.1236
74	4	296	-2.06	4.2436	16.9744
73	2	146	-3.06	9.3636	18.7272
72	3	216	-4.06	16.4836	49.4508
71	4	284	-5.06	25.6036	102.4144
70	3	210	-6.06	36.7236	110.1708
64	1	64	-12.06	145.4436	145.4436
Total	N= 34	$\sum fX = 2586$			$\sum fx^2 = 1159.882$

$$M_1 = \frac{\sum X}{N}$$

$$= \frac{2586}{34}$$

$$= 76.06$$

$$\begin{aligned}
 SD_1 &= \sqrt{\frac{\sum fx^2}{N}} \\
 &= \sqrt{\frac{1159.882}{34}} \\
 &= \sqrt{34.114} \\
 &= 5.84
 \end{aligned}$$

Table 4.7 Accounting of Mean and Standard Deviation of Variable Y

Score (Y)	Frequency (f)	fY	Deviation $y = Y - M$	y^2	fy^2
78	1	78	23.65	559.322	559.322
67	1	67	12.65	160.022	160.022
65	1	65	10.65	113.422	113.422
64	2	128	9.65	93.122	186.245
62	2	124	7.65	58.522	117.045
59	1	59	4.65	21.622	21.622
58	3	174	3.65	13.322	39.967
57	5	285	2.65	7.022	35.112
56	1	56	1.65	2.722	2.722
55	1	55	0.65	0.422	0.422
54	3	162	-0.35	0.122	0.367
53	2	106	-1.35	1.822	3.645
52	2	104	-2.35	5.522	11.045
51	1	51	-3.35	11.222	11.222

49	1	49	-5.35	28.622	28.622
48	1	48	-6.35	40.322	40.322
47	1	47	-7.35	54.022	54.022
43	1	43	-11.35	128.822	128.822
41	1	41	-13.35	178.222	178.222
38	1	38	-16.35	267.322	267.322
35	1	35	-19.35	374.422	374.422
33	1	33	-21.35	455.822	455.822
Total	N= 34	$\sum fY = 1848$			$\sum fy^2 = 2789.765$

$$M_2 = \frac{\sum Y}{N}$$

$$= \frac{1848}{34}$$

$$= 54.35$$

$$SD_2 = \sqrt{\frac{\sum fy^2}{N}}$$

$$= \sqrt{\frac{2789.765}{34}}$$

$$= \sqrt{82.052}$$

$$= 9.06$$

M_1 = Calculating mean of students' scores in experimental class

M_2 = Calculating mean of students' scores in control class

SD_1 = Standard deviation of students' scores in experimental class

SD_2 = Standard deviation of students' scores in control class

2. The researcher counts standard error of each text by using formula:

$$\begin{aligned} SE_{M1} &= \frac{SD_1}{\sqrt{N_1 - 1}} \\ &= \frac{5.84}{\sqrt{34 - 1}} \\ &= \frac{5.84}{5.74} \\ &= 1.02 \end{aligned}$$

$$\begin{aligned} SE_{M2} &= \frac{SD_2}{\sqrt{N_2 - 1}} \\ &= \frac{9.06}{\sqrt{34 - 1}} \\ &= \frac{9.06}{5.74} \\ &= 1.58 \end{aligned}$$

SEM_1 = Standard error of mean in students' scores in experimental class

SEM_2 = Standard error of mean in students' scores in control class

3. The researcher counts standard error from both subject by using formula:

$$\begin{aligned} SE_{M1 - M2} &= \sqrt{SE M_1^2 + SE M_2^2} \\ &= \sqrt{SE M_1^2 + SE M_2^2} \end{aligned}$$

$$= \sqrt{1.02^2 + 1.58^2}$$

$$= \sqrt{1.04 + 2.50}$$

$$= \sqrt{3.54}$$

$$= 1.88$$

4. The researcher counts t-test by using formula:

$$T_{test} = \frac{M_1 - M_2}{SE_{M_1 - M_2}}$$

$$= \frac{76.06 - 54.35}{1.88}$$

$$= \frac{21.71}{1.88}$$

$$= 11.55$$

5. After having the t-test score, the researcher looked at the t table by counting the degree of freedom.

The result is in the following

$$T \text{ table} = (N_1 + N_2) - 2$$

$$= (34 + 34) - 2 = 66$$

Df = Degree of freedom to know every position

The researcher finds the df (degree of freedom), which is 66. The table is put in the appendix.

6. The researcher's conclusion

It is found out that the "*t*" table for $df = 66$, (the writer uses the nearest df in table, that is df at 70), is 2.00 for 5% significance degree and 2.65 for 1% significance degree.

$$t_{test} = 11.55$$

$$t_{table} = 2.00 \text{ \& } 2.65$$

$$t_{table} < t_{test}$$

$$2.00 < 11.55 > 2.65$$

The statistic hypothesis states:

If $t_{table} < t_{test}$ = there is significant difference and H_a is accepted but H_o is rejected

Thus, t_{table} is lower than t_{test} ($5\% = 2.00 < t_{test} (11.55) > (1\% = 2.05)$). It shows that t_{test} is higher than t_{table} 5% and 1%. H_a (Alternative Hypothesis) is accepted and H_o (Zero Hypothesis) is rejected. It means that there is significant difference between students' writing achievement in the class that is taught with Cooperative Integrated Reading and Composition (CIRC) strategy and the class that is taught without Cooperative Integrated Reading and Composition (CIRC) strategy of ninth grade of SMPN 23 Banjarmasin year 2016/2017

B. Discussion

After presenting the data of the findings, the writer analyzes all the obtained data to give some considerations on the research.

1. Students' Writing Achievement on the Class that is Taught with Cooperative Integrated Reading and Composition (CIRC) Strategy and the Class that is Taught without Cooperative Integrated Reading and Composition (CIRC) Strategy

The presented data on the previous subchapter shows that in the test of experiment class (class that is taught with CIRC) shows that there were 7 students (20,58%) got the excellent score, 26 students (76,47%) got the good score, and 1 student (2,94%) got fair. There is no student get the poor or fail. Based on students' test result on experiment class, it is known that students' total score is 2586, the average is 76.06. The mean shows that students' writing achievement on the class that is taught with Cooperative Integrated Reading and Composition (CIRC) strategy is categorized into good category.

Meanwhile, the students' result of control class shows that there was no student categorized in excellent level (0%), 1 student was in good level (2,94%), 6 students were in fair level (17,65%), 19 students were in poor level (55,88%), and 8 students were in fail level (23,53%). Based on students' test result on control class, it is known that students' total score is 1848, the average is 54.35. The average score is 54.35 shows that the students' writing achievement that is taught without Cooperative Integrated Reading and Composition (CIRC) strategy in SMPN 23 Banjarmasin in year 2016/2017 is categorized into poor category.

2. The Comparative between Students' Achievement in Writing Report Text 'with and 'without' Using Cooperative Integrated Reading And Composition on Ninth Grade Students of SMPN 23 Banjarmasin in Year 2016/2017

As formulated in previous chapter, this research was also aimed to answer the question whether there is a significant improvement in writing achievement of the ninth grade students of SMP Negeri 23 Banjarmasin in year of 2016/2017 who are taught with using cooperative learning type of cooperative integrated reading and composition (CIRC) or not. In order to find out the answer, several research procedures had been done. All the data taken from every procedure had been computed and analyzed to draw the answer. The result of data analysis as presented in findings then showed that , t table is lower than t test ($5\% = 2.00 < t_{\text{test}} (11.55) > t_{\text{table}} (1\% = 2.05)$). T-test is higher than t table 5% and 1%. Thus, H_a (Alternative Hypothesis) is accepted and H_o (Zero Hypothesis) is rejected. Therefore, cooperative learning type called cooperative integrated reading and composition (CIRC) had significantly improved the students' writing achievement. It is because the students of experiment class had some groups which helped them to discuss reading text as reference of what they were going to write.