

## CHAPTER IV

### FINDING AND DISCUSSION

This chapter consists of two sections, namely the research finding and the discussion of the research. The finding of the research covers the description of the result of data collected through a test that can be discussed in the section below.

#### 4.1 Research Finding

##### 4.1.1 Data Description

The data were collected from students' pre-test and post-test at two classes; experimental class and control class, in which VIII B as the experimental class and VIII A as the control class. As the explanation in chapter III, the experiment class was taught reading comprehension by using Collaborative Strategic Reading and the control class was not. The result of the data can be described as the following:

##### 4.1.1.1 Data of Experimental Class

###### 4.1.1.1.1 Pretest of Experiment Class

The writer gave some test to the students' as the pre-test to know the student's reading comprehension. The type of the test was multiple choices. After giving the pre-test to the students, the writer found out the result of the students' reading comprehension based on the criteria of comprehensibility before giving treatment. The result was shown in the following table:

Table 4.1 Student's Pretest Score of Experiment Class

NO	STUDENTS	SCORE	CLASSIFICATION
1	Student 1	73.3	Good
2	Student 2	53.3	Poor
3	Student 3	46.6	Poor
4	Student 4	60	Fair

5	Student 5	60	Fair
6	Student 6	60	Fair
7	Student 7	73.3	Good
8	Student 8	66.6	Good
9	Student 9	53.3	Poor
10	Student 10	73.3	Good
11	Student 11	60	Poor
12	Student 12	60	Fair
13	Student 13	73.3	Good
14	Student 14	53.3	Poor
15	Student 15	60	Fair
16	Student 16	46.6	Poor
17	Student 17	53.3	Good
18	Student 18	60	Fair
19	Student 19	53.3	Poor
20	Student 20	60	Fair
21	Student 21	60	Fair
22	Student 22	46.6	Poor
23	Student 23	53.3	Poor
$\Sigma = 23$		<b>1359.4</b>	
<b>Average</b>		<b>59.10</b>	

Table 4.2 Students' Classification score in Pretest

No	Classification	Score	Frequency	Percentage (%)
1	Very good	80 – 100	0	0
2	Good	66 – 79	6	26.09
3	Fair	56 – 65	9	39.13
4	Poor	40 – 55	8	34.78
5	Very poor	≤ 39	0	0
<b>Total</b>			<b>23</b>	<b>100</b>

As the illustrated in the table above, the average score of the students' prior reading comprehension before applying collaborative strategic reading. Only six student can reach good score. It had shown that the students reading comprehension in the pre-test was low.

#### 4.1.1.1.2 Posttest of Experiment Class

After the writer gave treatment by using Collaborative Strategic Reading to the students, the writer gave post-test. The students were given the post-test to find out the achievement and their progress, it was used to know the result treatment. The result was shown in the following table:

Table 4.3 Student's Posttest Score based on Reading Comprehension

NO	STUDENTS	SCORE	CLASSIFICATION
1	Student 1	93.3	Very Good
2	Student 2	86.6	Very good
3	Student 3	60	Fair
4	Student 4	73.3	Good

5	Student 5	66.6	Good
6	Student 6	73.3	Good
7	Student 7	80	Very good
8	Student 8	86.6	Very good
9	Student 9	80	Very Good
10	Student 10	93.3	Very good
11	Student 11	86.6	Very Good
12	Student 12	73.3	Good
13	Student 13	93.3	Very good
14	Student 14	60	Poor
15	Student 15	73.3	Good
16	Student 16	60	Fair
17	Student 17	80	Very good
18	Student 18	86.6	Very Good
19	Student 19	73.3	Good
20	Student 20	86.6	Very good
21	Student 21	80	Very Good
22	Student 22	73.3	Good
23	Student 23	60	Poor
$\Sigma = 23$		<b>1779.3</b>	
<b>Average</b>		<b>77.36</b>	

Table 4.4 Students' Classification Score in Posttest

No	Classification	Score	Frequency	Percentage (%)
1	Very good	80 – 100	12	52.17

2	Good	66 – 79	7	30.43
3	Fair	56 – 65	2	8.70
4	Poor	40 – 55	2	8.70
5	Very poor	≤ 39	0	0
<b>Total</b>			<b>23</b>	<b>100</b>

The table above, shown the result of students' improvement in reading comprehension after applying treatment using collaborative strategic reading. There were twelve students got very good score and seven students got good score and two students go fair. Although there where still student got poor score. But most of the students got high score in test. It means that the students' reading comprehension had improved by using collaborative strategic reading.

#### 4.1.1.1.3 Gained Score of Experimental Class

Gained score is defined as the difference between test score obtained for an individual from a measurement instrument (the pretest and posttest scores) for each person. The students' gained score of experimental class as follows:

Tabel 4.5 Students' Gained Score of Experimental Class

No	Students	Pretest Score	Posttest Score	Gained Score
1	Student 1	73.3	93.3	20
2	Student 2	53.3	86.6	33.3
3	Student 3	46.6	60	13.4

4	Student 4	60	73.3	13.3
5	Student 5	60	66.6	6.6
6	Student 6	60	73.3	13.3
7	Student 7	73.3	80	6.7
8	Student 8	66.6	86.6	20
9	Student 9	53.3	80	26.7
10	Student 10	73.3	93.3	20
11	Student 11	60	86.6	26.6
12	Student 12	60	73.3	13.3
13	Student 13	73.3	93.3	20
14	Student 14	53.3	60	6.7
15	Student 15	60	73.3	13.3
16	Student 16	46.6	60	13.4
17	Student 17	53.3	80	26.7
18	Student 18	60	86.6	26.6
19	Student 19	53.3	73.3	20
20	Student 20	60	86.6	26.6

21	Student 21	60	80	20
22	Student 22	46.6	73.3	26.7
23	Student 23	53.3	60	6.7
$\Sigma = 23$		<b>1359.4</b>	<b>1779.3</b>	<b>419.9</b>
<b>Mean Score</b>		<b>59.10</b>	<b>77.36</b>	<b>18.26</b>
<b>Max Score</b>		<b>73.3</b>	<b>93.3</b>	
<b>Min Score</b>		<b>46.6</b>	<b>60.0</b>	

Based on Table 4.5 the lowest score and the highest score of pretest in the experimental class are 46.6 and 73.3 while the lowest score and the highest score of post-test are 60.0 and 93.3. Therefore, it can be concluded that the score of post-test at experimental class is higher than the score of its pre-test.

#### 4.1.1.2 Data of Control Class

##### 4.1.1.2.1 Pretest of Control Class

The writer gave some questions to the students as the pre-test to know the student's reading comprehension. Every student got the question and answered it. After giving the pre-test to the students, he researcher found out the result of the students' reading comprehension based on the criteria before giving treatment. The result was shown in the following table:

Table 4.6 Students' Pretest Score of Control Class

NO	STUDENTS	SCORE	CLASSIFICATION
1	Student 1	60	Fair
2	Student 2	60	Fair

3	Student 3	40	Fair
4	Student 4	60	Fair
5	Student 5	53.3	Poor
6	Student 6	40	Fair
7	Student 7	53.3	Poor
8	Student 8	66.6	Good
9	Student 9	60	Fair
10	Student 10	60	Fair
11	Student 11	60	Fair
12	Student 12	66.6	Good
13	Student 13	60	Fair
14	Student 14	66.6	Good
15	Student 15	46.6	Poor
16	Student 16	46.6	Poor
17	Student 17	66.6	Good
18	Student 18	66.6	Good
19	Student 19	40	Poor
20	Student 20	73.3	Good
21	Student 21	46.6	Poor
22	Student 22	73.3	Good
23	Student 23	40	Poor
$\Sigma = 23$		<b>1306</b>	
<b>Average</b>		<b>56.78</b>	

Table 4.7 Students' Classification Score in Pretest



No	Classification	Score	Frequency	Percentage (%)
1	Very good	80 – 100	0	0
2	Good	66 – 79	7	30.4
3	Fair	56 – 65	9	39.2
4	Poor	40 – 55	7	30.4
5	Very poor	≤ 39	0	0
<b>Total</b>			<b>23</b>	<b>100</b>

The data in the table above shows that in Pretest of control class there were still many students had low score in reading. The students were difficult to answer the test well. They did not understand the text well.

#### 4.1.1.2.2 Posttest of Control Class

After the writer gave treatment to the students, the writer gave post-test. The students were given the post-test to find out the achievement and their progress, it was used to know the result treatment. The result was shown in the following table:

Table 4.8 Students' Posttest Score of Control Class

NO	STUDENTS	SCORE	CLASSIFICATION
1	Student 1	73.3	Good
2	Student 2	66.6	Good
3	Student 3	60	Fair
4	Student 4	80	Very Good
5	Student 5	60	Fair
6	Student 6	73.3	Good

7	Student 7	66.6	Good
8	Student 8	73.3	Good
9	Student 9	66.6	Good
10	Student 10	66.6	Good
11	Student 11	66.6	Good
12	Student 12	73.3	Good
13	Student 13	66.6	Good
14	Student 14	73.3	Good
15	Student 15	53.3	Poor
16	Student 16	60	Fair
17	Student 17	73.3	Good
18	Student 18	66.6	Good
19	Student 19	53.3	Poor
20	Student 20	80	Very good
21	Student 21	53.3	Poor
22	Student 22	80	Very good
23	Student 23	66.6	Good
$\Sigma = 23$		<b>1552.5</b>	
<b>Average</b>		<b>67.5</b>	

Table 4.9 Students' Classification Score in Posttest

No	Classification	Score	Frequency	Percentage (%)
1	Very good	80 – 100	3	13.04
2	Good	66 – 79	14	60.88

3	Fair	56 – 65	3	13.04
4	Poor	40 – 55	3	13.04
5	Very poor	$\leq 39$	0	0
<b>Total</b>			<b>23</b>	<b>100</b>

The table above, shown the result of students' improvement in reading comprehension after applying treatment using collaborative strategic reading. There were three students got very good score and fourteen students got good score and three students go fair and three got poor. some of the students got high score in test. It means that they can understand the text and answer the question well.

#### 4.1.1.2.3 Gained Score in Experiment Class and Control Class

Gained score is defined as the difference between test score obtained for an individual from a measurement instrument (the pretest and posttest scores) for each person. The students' gained score of experimental class as follows:

Table 4.10 Students' Gained Score of Control Class

NO	STUDENT	PRETEST SCORE	POSTEST SCORE	GAINED SCORE
1	Student 1	60	73.3	13.3
2	Student 2	60	66.6	6.6
3	Student 3	40	60	20
4	Student 4	60	80	20

5	Student 5	53.3	60	6.7
6	Student 6	40	73.3	33.3
7	Student 7	53.3	66.6	13.3
8	Student 8	66.6	73.3	6.7
9	Student 9	60	66.6	6.6
10	Student 10	60	66.6	6.6
11	Student 11	60	66.6	6.6
12	Student 12	66.6	73.3	6.7
13	Student 13	60	66.6	6.6
14	Student 14	66.6	73.3	6.7
15	Student 15	46.6	53.3	6.7
16	Student 16	46.6	60	13.4
17	Student 17	66.6	73.3	6.7
18	Student 18	66.6	66.6	0
19	Student 19	40	53.3	13.3
20	Student 20	73.3	80	6.7
21	Student 21	46.6	53.3	6.7

22	Student 22	73.3	80	6.7
23	Student 23	40	66.6	26.6
$\Sigma = 23$		<b>1306</b>	<b>1552.5</b>	<b>246.5</b>
<b>Mean Score</b>		<b>56.78</b>	<b>67.5</b>	<b>10.72</b>
<b>Max Score</b>		<b>73.3</b>	<b>80</b>	
<b>Min Score</b>		<b>40</b>	<b>53.3</b>	

Based on Table 4.5 the lowest score and the highest score of pretest in the control class are 40.0 and 73.3 while the lowest score and the highest score of post-test are 53.3 and 80. Therefore, it can be concluded that the score of post-test at control class is higher than the score of its pre-test. It means that Collaborative Strategic Reading can improve the students' Reading Comprehension.

#### 4.1.1.3 Data Analysis

In analyzing the data, t-test was used to make it easier to test the hypotheses. The formula of the t-test is as follows:

$$t = \frac{x_1 - x_2}{\sqrt{\left(\frac{SS_1 + SS_2}{n_1 + n_2 - 2}\right) \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

Before analyzing the data by using the t-test formula, there are several steps that should be done as follows.

Table 4.11 The Comparison Score between Students in Experimental Class (X) and Control Class (Y)

No	X	Y	X = x - Mx	Y = Y - My	X <sup>2</sup>	Y <sup>2</sup>
1	20	13.3	1.74	2.58	3.0276	6.6564

2	33.3	6.6	15.04	-4.11	226.2016	16.8921
3	13.4	20	-4.85	9.28	23.5225	86.1184
4	13.3	20	-4.95	9.28	24.5025	86.1184
5	6.6	6.7	-11.65	-4.01	135.7225	16.0801
6	13.3	33.3	-4.95	22.58	24.5025	509.8564
7	6.7	13.3	-11.55	2.58	133.4025	6.6564
8	20	6.7	1.74	-4.01	3.0276	16.0801
9	26.7	6.6	8.44	-4.11	71.2336	16.8921
10	20	6.6	1.74	-4.11	3.0276	16.8921
11	26.6	6.6	8.34	-4.11	69.5556	16.8921
12	13.3	6.7	-4.95	-4.01	24.5025	16.0801
13	20	6.6	1.74	-4.11	3.0276	16.8921
14	6.7	6.7	-11.55	-4.01	133.4025	16.0801
15	13.3	6.7	-4.95	-4.01	24.5025	16.0801
16	13.4	13.4	-4.85	2.68	23.5225	7.1824
17	26.7	6.7	8.44	-4.01	71.2336	16.0801
18	26.6	0	8.34	-10.71	69.5556	114.7041
19	20	13.3	1.74	2.58	3.0276	6.6564
20	26.6	6.7	8.34	-4.01	69.5556	16.0801
21	20	6.7	1.74	-4.01	3.0276	16.0801
22	26.7	6.7	8.44	-4.01	71.2336	16.0801
23	6.7	26.6	-11.55	15.8	133.4025	249.64
$\Sigma = 23$	<b>419.9</b>	<b>246.5</b>			<b>1347.72</b>	<b>1302.77</b>
<b>Mean</b>	<b>18.26</b>	<b>10.72</b>				

<b>Score</b>		
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4.1.1.3.1 Determining mean of gained score of control class:

$$\bar{x} = \left( \frac{\sum x}{Nx} \right)$$

$$\bar{x} = \left( \frac{419.9}{23} \right)$$

$$\bar{x} = 18.26$$

4.1.1.3.2 Determining mean of gained score of Control class:

$$\bar{x} = \left( \frac{\sum y}{Ny} \right)$$

$$\bar{x} = \left( \frac{246.5}{23} \right)$$

$$\bar{x} = 10.72$$

4.1.1.3.3 Determining standard deviation of experiment class:

$$SS = \sum X^2 - \frac{(\sum x)^2}{N}$$

$$SS = 1347.72 - \frac{(419.9)^2}{23}$$

$$SS = 1347.72 - \frac{176316.01}{23}$$

$$SS = 1347.72 - 7665.91$$

$$SS = -6318.19$$

4.1.1.3.4 Determining deviation of control class:

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

$$SS = 1302.77 - \frac{(246.5)^2}{23}$$

$$SS = 1302.77 - \frac{60762.25}{23}$$

$$SS = 1302.77 - 2641.25$$

$$SS = -1339.06$$

4.1.1.3.5 Determining value of hypotheses testing by using t-test formula:

$$t = \frac{x_1 - x_2}{\sqrt{\left(\frac{SS_1 + SS_2}{n_1 + n_2 - 2}\right) \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

$$t = \frac{18.26 - 10.72}{\sqrt{\left(\frac{-6318.19 + (-1339.06)}{23 + 23 - 2}\right) \left(\frac{1}{23} + \frac{1}{23}\right)}}$$

$$t = \frac{7.54}{\sqrt{\left(\frac{-7657.25}{40}\right) \left(\frac{1}{23} + \frac{1}{23}\right)}}$$

$$t = \frac{7.54}{\sqrt{(-191.43) \cdot (0.08)}}$$

$$t = \frac{7.54}{\sqrt{-15.31}}$$

$$t = \frac{7.54}{-3.91}$$

$$t = 1.92$$

4.1.1.3.6 Determining degrees of freedom:

$$df = N_x + N_y - 2$$

$$df = 23 + 23 - 2$$

$$df = 44$$

After obtaining the degrees of freedom, looking at t-table (tt) at the degree of freedom 40 in significant degrees of 0.05 (5%), the t-table (tt) is 1.92.

## 4.2 Discussion



#### 4.2.1 Data Interpretation

Based on data analysis, if  $t_o$  (*t-observation*) is higher than  $t_t$  (*t-table*), ( $1.92 > 1.68$ ), the null hypothesis ( $H_0$ ) is rejected and the alternative hypothesis ( $H_a$ ) is accepted. It should be concluded that the using of collaborative strategic reading is there any significant different of the students' reading comprehension at the eighth grade students' of MTs Al-badar. But, both of control class and experimental class get improvement in each posttest. Furthermore, the students in the experimental class achieve higher score in their posttest than the score of students in control class

#### 4.2.2 Students' Reading Comprehension Before and After Being Taught by Collaborative Strategic Reading

Measuring the students' comprehension in reading before and after being taught by using Collaborative strategic Reading can be seen at students' score in pretest and posttest. It can be said that the implementation of Collaborative strategic Reading able to encourage reading comprehension if the posttest score of the experimental class is higher than pretest score of the experimental class. By looking at the research finding, found that the mean score of the experimental class in pretest is 59.10 and the mean score of the experimental class in posttest is 77.36.

From that finding, it can be interpreted that students' reading comprehension before being taught by using Collaborative strategic Reading is lower if it compares with the students' reading comprehension after being taught by Collaborative strategic Reading. It is implicated that using Collaborative strategic Reading able to encourage students' reading comprehension. Furthermore, to make a conclusion about the effectiveness of Collaborative strategic Reading to encourage reading comprehension at the eighth grade students of MTs Al-Badar, it can be done by analyzing the data using  $t_o$  and compare it with the  $t$ -table. The result of the data

analyses showed that  $t_o (1.92) > t_t (1.68)$ . It means that the Collaborative strategic reading is effective to encourage reading comprehension the eighth grade students of MTs Al-Badar

#### 4.2.3 The Result of the Test

Based on data analysis, if  $t_o$  (*t-observation*) is higher than  $t_t$  (*t-table*), ( $1.92 > 1.68$ ), the null hypothesis ( $H_0$ ) is rejected and the alternative hypothesis ( $H_a$ ) is accepted. It should be concluded that the implementation of Collaborative Strategic Reading is able to encourage reading comprehension at the eighth grade students' of MTs Al-Badar. But, both control class and experimental class get improvement in each posttest. Furthermore, the students in the experimental class achieve higher score in their post-test than the score of students in control class.

The data is found that the mean score of the pretest score of the experimental class was 59.10 the mean score of pretest score of control class was 57.78. The mean score of posttest score of experimental class was 77.36 the mean score of posttest score of control class was 67.5. It can be seen that the students' learning outcomes of experimental class is higher than the students' learning outcomes of the control class. So according to the theory the Collaborative Strategic Reading is effective to encourage reading comprehension at the eighth grade students of MTs Al-Badar.