

IV. RESULTS AND DISCUSSION

This chapter presents the results of pre test and post test in experimental class one and experimental class two. The researcher also analyzed the increase of students' reading comprehension achievement after the treatments and discussed how the treatments done.

4.1 Results of Research

4.1.1 Results of Try out Test

Before conducting the pre-test and post-test, a try out test was carried out. This test was administered in order to determine the quality of the test as instrument of the research. The try out test was administered in the class which did not belong to the experimental classes. The writer prepared multiple choices test that consisted of 35 items. After analyzing the data, the writer got that 25 items were good and 10 items were poor and should be dropped. To find out the reliability of the test, the writer used statistical formula namely *Spearman Brown's Prophecy Formula*. If the reliability tests reach 0.50 the researcher will consider that it has been reliable. The result of the reliability found through this research was 0.98 (see Appendix 6). By referring to the criteria of the reliability proposed by Hatch and Farhady (1982:268), the test had high reliability in the range 0.9000-1.00 it indicated that this instrument would produce consistent result when administered

under similar condition to the same participant and in different time (Hatch and Farhady, 1982).

Based on the computation of level of difficulty (see Appendix 5), the writer found that there were six items which were more than 0.70 which means that the items were easy and one item was below 0.30 which means difficult. Meanwhile there were 28 items which were between the ranges 0.30-0.70 or belonged to average.

Meanwhile from the computation of discrimination power (see Appendix 5) the writer got seven poor items (having less than 2.00 index), 14 items were satisfactory (having higher than 2.00 index) and 14 good items (has higher than 4.00 index). In general, it can be stated that all items tested had good discrimination power and positive value. In this research, the writer omitted 10 items that were unsatisfactory to be used in pre-test and post-test. The writer only administered 25 items that were satisfactory to be used in pre-test and post-test.

4.1.2 Results of Pre Test

The pre test was administered in order to measure the entry point of the students' ability in reading comprehension of narrative text and to know whether the two classes were equal or not in terms of their reading comprehension of narrative text achievement before the treatments were given. The tests were conducted simultaneously in the experimental class in 60 minutes. There were 25 items of objective reading test with five optional alternative answers for each (A, B, C, D,E), one was the correct answer and the rest were the distracters. The total score of the pre test in the experimental class one was 2024. The mean of pre test was

63.25; the highest score was 80; the lowest score was 48; and the median was 64 (see Appendix 8). Meanwhile, the total score of the pre test in the experimental class two was 2040. The mean of pre test was 63.75; the highest score was 80; the lowest score was 48; and the median was 66 (see Appendix 8).

After conducting the pre-test for both classes, the researcher determined whether the experimental class one and experimental class two had the same basic ability or equal knowledge by using homogeneity test. This test of equalization of variance was done by using SPSS version 15.00

The hypothesis of this test was as follow:

H_0 : there is no significant difference (equal)

H_1 : there is significant difference (not equal)

In this case, H_0 was accepted if $p > \alpha$ (p = the significant score of students, α = the significance level). Here, the researcher used the significance level 0.05. Look at the table below to know the comparison of students' pre-test score in both classes.

Table 4.1 The Homogeneity test of the Students' Pretest Scores in Both classes

		Independent Samples Test									
		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper	
Ttest	Equal variances assumed	.038	.846	.208	62	.836	.50000	2,39876	-4,29505	5,29505	
	Equal variances not assumed			.208	61,976	.836	.50000	2,39876	-4,29508	5,29508	

Based on the Table 4.1 above it can be seen that the two tailed significance of the pretest was 0.836. it means that p was higher than α or $p > \alpha$ ($p > 0.05$, $p = 0.836$). it can be determined that H_0 was accepted and H_1 was rejected. Besides that, the

different score was not too far or, in other words, the experimental class one and experimental class two had the same level of ability in reading comprehension.

4.1.3 Result of Post Test

The post test was administered in order to see the students' score whether it increases or not. The post test was exactly the same as the pre test. The tests were conducted simultaneously in experimental classes in 60 minutes. There were 25 items of objective reading test with five option alternative answers. The total scores of the post test in the experimental class one was 2552. The mean of post test was 79.75; the highest score was 92; the lowest score was 60 and the median was 80 (see Appendix 9).

Meanwhile, the total score of the post test in the experimental class two was 2300. The mean of post test was 71.87; the highest score was 84; the lowest score was 56 and the median was 72 (see Appendix 9).

The result of the equalization of the post-test scores between the two classes was carried out by using T-Test in SPSS version 15.0, in which the hypothesis for the homogeneity variance test was:

H_0 : there is no significant difference (equal)

H_1 : there is significant difference (not equal)

In this research, H_0 was accepted if $p > \alpha$ (p = the significant score of students, α = the significance level). Here, the researcher used the significance level 0.05.

Look at the table below to know the comparison of students' pretest score in both classes.

Table 4.2 The Homogeneity test of the Students' Post-test Scores in Both classes

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Ttest	Equal variances assumed	.238	.628	4,173	62	,000	7,87500	1,88733	4,10229	11,64771
	Equal variances not assumed			4,173	61,967	,000	7,87500	1,88733	4,10225	11,64775

Based on the table above, it can be seen that the significant score of students was 0.000. It means that p was lower than α or $p < \alpha$ ($p > 0.05$, $p = 0.000$). It can be determined that H_0 was rejected and H_1 was accepted. Besides that, the different score was so far or, in other words, the experimental class and control class had significant difference level of ability in reading comprehension.

4.1.4 The Increase of Students' Reading Comprehension Achievement

In the experimental class one, there was increase 528 point for the total point after being given the treatments through collaborative strategic reading. The highest score, 80 in pretest increased into 92 in the posttest, and the lowest score in pretest improved from 48 into 60 in the posttest. Moreover, the mean of the pretest that was 63.25 increased to be 79.75 in the posttest.

The significance value (2-tailed) was $p = 0.00 < 0.05$ ($p < 0.05$). H_1 is accepted. It meant that there was a significance difference. Besides, from the table 4 below, there was an increase of students' reading comprehension mean from pretest to posttest that was 16.5. It can be stated that there was a significant increase of the

students' reading comprehension after being treated using collaborative strategic reading in experimental class one.

The table below shows the result of paired sample t-test and how the students' reading comprehension score increased significantly from pretest and posttest.

Table 4.3 The Increase of the Students' Achievement in Experimental Class One

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	PretestExperimental ClassOne - PosttestExperimental ClassOne	-16,50000	7,51772	1,32896	-19,21043	-13,78957	-12,416	31	.000

Meanwhile, the students' reading comprehension score also increased in the experimental class two though it was not as significant as in the experimental class one. These are the table of the result of the increase of the students' achievement.

Table 4.4 The Increase of the Students' Achievement in Experimental Class Two

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	PretestExperimental ClassTwo - PosttestExperimental ClassTwo	-8,12500	4,92361	,87038	-9,90015	-6,34985	-9,335	31	.000

Based on the Table 4.4 above the significant value (2tailed) was $p < 0.00 < 0.05$ ($p < 0.05$). H_1 is accepted. It meant that there was a significance difference. Then, the increase of students' reading comprehension mean from pretest to posttest was only 8.125 Comparing to experimental class 1 (16.5 $>$ 8.125 point), it is quite different point.

Thus, look at the table below for comparison.

Table 4.5 The comparison of Students' Reading Comprehension Score in Both Classes

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means							
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
								Lower	Upper	
Ttest	Equal variances assumed	.238	.628	4,173	62	.000	7,87500	1,88733	4,10229	11,64771
	Equal variances not assumed			4,173	61,967	.000	7,87500	1,88733	4,10225	11,64775

	Class	Mean	Mean Difference	Significant value	T
Posttest Scores	Experimental Class One	79.75	7.87	0.000	4.173
	Experimental Class Two	71.870			

By observing the Table 4.5 above, there are three aspects being compared. The first is the mean of both classes; 79.75 for experimental class one and 71.870 for experimental class two. The experimental class two gained the lower average score in posttest than experimental class one. The mean difference was 7.87, meaning that the experimental class one gained 7.87 score, higher than experimental class two in posttest. The second is the significant value of students, that was 0,000 ($p=0,000$). Based on the table above, it can be found that the students' significant score was lower than 0.05 ($0,000 < 0.05$). The last was t-ratio $>$ t-table ($4.13 > 2.000$) and therefore, H_0 was rejected. In simple way, H_1 is accepted that there was a significant difference of students' reading comprehension achievement between those who were taught through collaborative strategic reading and those taught through self-questioning strategy. Lastly, the increase of both classes was gained significantly different.

4.2 Results of Data Treatment

4.2.1 Random Test

This test is used to know that the data were taken is random. The data can be tested by using Statistic Formula in Descriptive Formula which was processes using SPSS 15, descriptive statistics (Runs test). From the table in appendices, all tests in both of experimental and control classes, the researcher concluded that the data were random because the result of random test is higher than 0.05 ($\text{sign} > \alpha$). In this case, the writer used 0.05, level of significance (see Appendix 10).

4.2.2 Normality Test

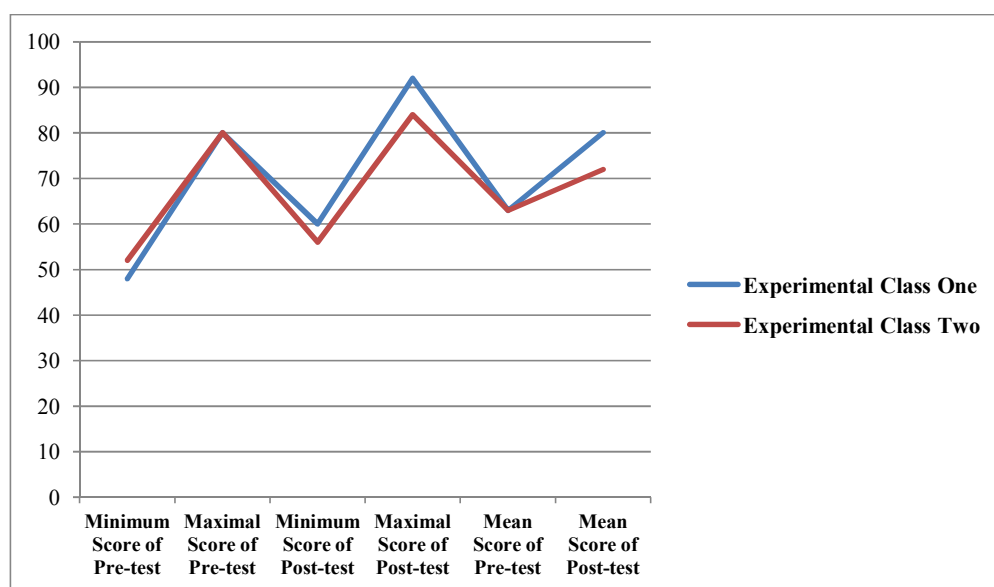
This test is used to measure whether the data in experimental and control classes were normally distributed or not. The data were tested by One-sample Kolmogorov-Smirnov Formula which was processed using SPSS 15 to test the normality of the data. From the table in appendices, the researcher concluded that data in both of two classes were normally distributed because the result of normality test is higher than 0.05 ($\text{sign} > \alpha$). In this case, the writer used 0.05, level of significance (see Appendix 11).

4.3 Discussion of Findings

In line with the result of the research previously presented, it was found that the increase or the students' reading comprehension score in the experimental class one and two after treatments were significant, that was $p < 0.05$ ($p = 0.000$), which was based on hypothesis testing. It proved that H_0 of this research was

rejected and H_1 of this research was accepted. It can be seen by comparing the increase of the students' reading comprehension scores within both groups. So it means that there is significant difference between students taught through collaborative strategic reading and taught through self-questioning strategy. For further information it can be seen in the graphic below:

The Graphic of the Effectiveness between Collaborative Strategic Reading and Self-Questioning Strategy



After conducting pre-test to find out the students' basic ability in reading comprehension before being given treatments, the researcher conducted the treatments within three times of meetings and it would be explained briefly as follow:

The first meeting in the experimental class one the students were still confused of the concept of collaborative strategic reading. They always asked every step they would do. It flustered the teacher in answering the questions that came one after

the other without stopping. This was maybe because they should apply some strategies they had never faced before in their reading comprehension lesson. The teacher got the students to make group consist of 4 to 5 students as it suggested in the procedure of teaching through collaborative strategic reading. In addition, the researcher found that as a teacher, he had limited time for instruction, and he had not ensured that the students already had knowledge and understanding of the tasks. Therefore, the students did not know the connection between the demands of the text and the use of the strategy.

In the same line of the problem above, the first meeting in the experimental class two also did not run really well. In the first treatment, the students were not fully interested in reading activity. They did not really understand about self questioning strategy. Then in the while-activity, the writer continued explaining about self questioning strategy. In the main activity, the researcher showed the students how to use self questioning. After the students were being taught about the concept of self-questioning strategy, then the teacher read the text once and the students were listening to the teacher. Then they read the text by their own self, and make 10 questions based on the text and its predictions. One of the students were asked in front of the class to read some of his questions and answered by other students, so on until the writer felt they had got the whole clues they were asked to answer 5 questions provided by the researcher. Among the whole activities done by the students, mostly they had difficulty in making questions. They were also lack of vocabulary and this made them difficult in generating questions.

In the second treatment, almost the same steps were run as in the first treatment. The teaching learning process runs better than the first treatment. Students seemed to try to pay more attention to the text. In the experimental class one the students worked in the same group with different roles. At the beginning of the second meeting, though the researcher already defined the role for each student, some still competed to choose their each role in a cooperative group. This problem could be handled by giving some advices and making role exchange in the third meeting. Students' responses in the lesson indicated that the students were more confident in doing tasks when the teacher gave them explicit instruction. Moreover, the students' attitude toward reading would become more positive if they perceived their important task. Some students enjoyed doing the task by themselves rather than in group. There was more comfortable feeling among those who did the task by themselves. This is in line with the findings stated that student has different comfort level in cooperative group (Vaughn and Klingner, 1999). Anyhow, Klingner and Vaughn (1996) originally designed CSR by combining modified reciprocal teaching with cooperative learning. Reciprocal teaching was developed with the intention of aiding students having difficulty with reading comprehension. Thus, every student had to work in group even though they preferred working by themselves.

Meanwhile the second treatment in experimental class two run better than the first treatment. But during reading activities, they still confused about how to generate questions. Actually they know what they read and what to ask. They know what questions should generate in Bahasa Indonesia, this means that they know what the text tells about. But it became difficult when they must translate their

questions in to English. Realizing those problems, the researcher then asked the students to write the questions in both Bahasa Indonesia and English in order to control what they ask. This also took time but at least the students then continued posing questions and not stopped because of language. After analyzing the questions the students generate, the researcher found that they were good in making questions about detail information explicitly stated in the text, but they were poor in implicit information.

The last treatment in experimental class one, the researcher also did the same steps to begin the class. At the time, the researcher found more improvement showed by the students. The students involved the teaching learning process. They involved all of the roles in their group. The students were able to relate their background knowledge with the text so they could comprehend well and got the gist of the text. The tasks of their discussion were to identify the problem of the text and the solution of the problem, to find specific information from the text, to conclude the moral value of the text and to rewrite the text using their own words. Finally, they were able to do the task during the process. Students responded actively to the teacher and their friends' question so teaching learning process was not dominated by the teacher. During the treatment, the teaching and learning process in the classroom ran smoothly. The student enjoyed the activities at the first and second meeting. However, at the third meeting, they seemed have mastered in reading comprehension of narrative text. It was because they were given the same activities in almost two weeks.

Whereas the third treatment in experimental class two, the researcher asked the students to be more concerned about vocabulary and reference. This could help

them in determining the specific information. The researcher still applied the same procedure from the beginning till the end of teaching learning process. At that time, more improvement was shown by students, greater and better than that in the previous treatments. The students tried to comprehend the text well enough; they also seemed very active when running the procedures of self questioning strategy. They could control their own reading and focus on the text and questions they pose. So the teaching learning process was not dominated by the teacher. In this treatment, the students had been able to determine specific information.

After finishing the treatment, the researcher conducted the posttest to both classes to find out whether there is a significant difference of students' reading comprehension achievement between those who were taught through collaborative strategic reading and those who were taught through self-questioning strategy. The two methods were concluded to have similar impacts in increasing students' reading comprehension achievement.

Since the students who were taught through collaborative strategic reading gave higher result than those who were taught through self-questioning strategy, it was considered collaborative strategic reading was better than self-questioning strategy. Besides, it was also because collaborative strategic reading was designed to teach students to be active and to refine their reading comprehension skills as they worked in structured collaborative groups with defined roles to engage in meaningful encounters with conceptual idea from the text. Although self-questioning strategy was also applied in groups, but the result was not as effective as the collaborative group. It was the group which were taught through self-

questioning strategy were not well structured. All the member of the group played the same role. The effectiveness of the group only giving feed back to the each member in constructing the questions that would be used for comprehending the text. This present research also support the theory stating that small group of student-led instruction are highly useful for comprehending content area text (Bryant et al., 1999 in Standish, 2005). In their collaborative group, the students become more active and independent readers. In the term of objective achieved on reading, collaborative strategic reading is more prior on such skills of finding spesific information, identifying reference and inference meanwhile self questioning strategy is more prior on identifying the main idea and intepreting vocabulary. After all, Collaborative strategic reading was more appropriate and possible to use to increase student's reading comprehension achievement significantly. The students' activity in collaborative work showed that spending more time on task during the reading lesson It was also found that the peer interaction that occurs as students work in collaborative group can promote interest and persistence in the reading.

