

CHAPTER IV

FINDING AND DISCUSSION

This chapter presents the description of data, hypothesis testing and discussion.

A. Description of Data

In this research, the researcher used the quantitative research design and researcher did pre-experimental research about the effectiveness of reciprocal teaching on students' reading comprehension of tenth grade at MAN 2 Tulungagung in academic year 2015/2016. The researcher used three steps. There are pre-test, giving some treatments by using reciprocal teaching and post-test. Before and after doing treatments, researcher done the pre-test and the post-test. Pre-test and post-test were done to get reading comprehension score. After doing pre-test and post-test, the researcher got scores from students.

Table 4.1

The scores of the pre-test and post-test students' reading comprehension before and after being taught by using reciprocal teaching

NO	NAME	PRE-TEST SCORE	POS-TEST SCORE
1.	AZU	84	87
2.	AFH	77	100
3.	AFF	84	84
4.	AS	77	87
5.	AIS	100	100
6.	ASH	70	74
7.	AQA	80	87
8.	AN	70	80
9.	AS	84	87
10.	DS	80	70
11.	DSH	60	67
12.	FK	84	87

13.	HCH	54	84
14.	IN	84	87
15.	LQ	93	87
16.	LDM	84	80
17.	MFA	80	87
18.	MFK	70	80
19.	MNS	80	87
20.	MH	80	80
21.	MIC	97	84
22.	MYB	80	84
23.	MMF	74	84
24.	MAF	70	100
25.	MAN	34	54
26.	MHS	80	87
27.	MAH	84	87
28.	MIJ	84	87
29.	MT	74	87
30.	NO	93	87
31.	NC	67	67
32.	RA	97	93
33.	RAA	97	97
34.	SD	80	100
35.	SS	87	87
36.	VHA	67	93
37.	YIA	93	87
38.	YB	57	64
39.	ZA	80	80

Based on the table 4.1, there are 39 students as sample of the research. The researcher administered the test before and after being taught by using reciprocal teaching. The test was multiple choices consist of 30 items about narrative text.

To know whether there is any significant difference achievement on the students' reading comprehension before and after being taught by using reciprocal teaching. The researcher used SPSS 16.0 version and percentage formula to measure the percentage of the scores. The percentage scores of students' reading comprehension will be divided into five criteria. They are very good, good, enough/fair, less and bad/low. The student belongs to very good if they got (80-

100) score or they can understand the meaning and can do the test well. The student belongs to good if they got (70-79) score or they just little confuse about reading comprehension test but they can do the test. The student belongs to enough/fair if they got (60-69) score or they just understand little of reading comprehension test and they just little do the test well. The students' belongs to less if they got (50-59) score or they still confused about reading and they just do the test and the last student belongs to bad/low if they got (0-49) score or they cannot understand about reading comprehension and cannot do the test well. (See table 4.2)

Table 4.2
Table of the Score's Criteria

No	Interval Class	Criteria
1.	80-100	Very Good
2.	70-79	Good
3.	60-69	Enough/Fair
4.	50-59	Less
5.	0-49	Bad/Low

1. Students' reading comprehension before being taught by using reciprocal teaching

The researcher used SPSS 16.0 and percentage formula to measure the percentage of the pre-test score and to show the score (see table 4.3 and 4.4). The researcher divided the percentage of scores into five criteria in students' reading comprehension before being taught by using reciprocal teaching. The criteria are very good, good, enough/fair and bad/low.

Table 4.3
Descriptive Statistic of Pre-test

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Pretest	39	34	100	78.72	13.014
Valid N (listwise)	39				

Based on the table 4.3, *the output of descriptive statistics* on 39 students' pre-test shows that the minimum score is (34), the maximum score is (100), the mean is (78.72) and the standard deviation is (13.014). It means that the mean of pre-test on 39 students is approximated with standard score in school.

Table 4.4
The percentage of students' reading comprehension before implementing reciprocal teaching

INTERVAL CLASS	VERY GOOD	GOOD	ENOUGH/ FAIR	LESS	BAD/LOW
	%	%	%	%	%
Very Good	64.1%	-	-	-	-
Good	-	20.5%	-	-	-
Enough/Fair	-	-	7.6%	-	-
Less	-	-	-	5.1%	-
Bad/Low	-	-	-	-	5.1%

Based on the table 4.4, the researcher got percentages of the pre-test score before being taught by using reciprocal teaching from calculated the result of output SPSS. There are; 64.1% students got very good score, 20.5% students got

good score, 7.6% students got enough/fair score, 5.1% students got less score and 5.1% students got bad/low score. It means that before being taught by using reciprocal teaching, half numbers of students have enough score; it can be said that the students understand yet about reading text, especially narrative text.

2. Students' reading comprehension after being taught by using reciprocal teaching

The researcher used SPSS 16.0 version and percentage formula to measure the percentage of the post-test score and to show the score (see table 4.5 and 4.6). The researcher divided the percentage of scores into five criteria in students' reading comprehension after being taught by using reciprocal teaching. The criteria are very good, good, enough/fair and bad/low.

Table 4.5
Descriptive statistics of post-test

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Posttest	39	54	100	84.38	9.930
Valid N (listwise)	39				

Based on table 4.5, *the output of descriptive statistics* on 39 students' post-test shows that the minimum score is (54), the maximum score is (100), the mean is (84.38) and the standard deviation is (9.930). It means that the mean score of students' post-test is much higher than standard score in school.

Table 4.6

The percentage of students' reading comprehension after being taught by using reciprocal teaching

INTERVAL CLASS	VERY GOOD	GOOD	ENOUGH/F AIR	LESS	BAD/LOW
	%	%	%	%	%
Very Good	84,6%	-	-	-	-
Good	-	5.1%	-	-	-
Enough/Fair	-	-	7.6%	-	-
Less	-	-	-	2.5%	-
Bad/Low	-	-	-	-	-

Based on the table 4.6, the researcher got percentages of the pre-test score after being taught by using reciprocal teaching. There are; 84.1% students got very good score, 5.1% students got good score, 7.6% students got enough/fair score, 2.5% students got less score and there is no students got bad/low score. It means that after being taught by using reciprocal teaching, half numbers of students have very good score; it can be said that the students understood about reading text well and there is no students got bad/ low score.

3. The effectiveness of teaching reading comprehension before and after being taught by using reciprocal teaching.

The researcher used SPSS 16.0 version and percentage formula to measure the percentage of the pre-test score and post test score (see table 4.8 and 4.9). The researcher divided the percentage of scores into five criteria in students' reading comprehension before and after being taught by using reciprocal teaching. The criteria are very good, good, enough/fair and bad/low.

Table 4.7
Descriptive statistics of pre-test and post-test

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Posttest	39	54	100	84.38	9.930
Pretest	39	34	100	78.72	13.014
Valid N (listwise)	39				

Based on the table 4.7, *the output of descriptive statistics* on 39 students' pre-test and post-test, shows that the minimum score were raising from (34 to 54), the mean from (78.72 to 84.38). From the raising mean itself it means that teach by using reciprocal teaching on reading comprehension has different mean score.

Table 4.8
The percentage of students' reading comprehension before and after being taught by using reciprocal teaching

INTERVAL CLASS	Before implementing reciprocal teaching	After implementing reciprocal teaching
	%	%
Very Good	64.1%	84.6%
Good	20.5%	5.1%
Enough/Fair	7.6%	7.6%
Less	5.1%	2.5%
Bad/Low	5.1%	-

Based on the table 4.8, it shows that most achievement of post-test is in very good criteria. There is 84.6% is higher than 64.1% and there is no students got bad/low criteria. It means that the students' score after being taught by using

reciprocal teaching is higher than before being taught by using reciprocal teaching.

To ensure whether the difference of pre-test and post-test scores is significant or not, researcher used SPSS 16.0 version to measure the T-test of the score to verify the effectiveness of reciprocal teaching on students' reading comprehension. The result is as follows:

Table 4.9
Paired Sample test

Paired Samples Test								
	Paired Differences					t	df	Sig. (2-tailed)
		Std.	Std.	95% Confidence Interval of the Difference				
				Mean	Lower			
Pair 1 Pretest - Posttest	-5.667	10.145	1.624	-8.955	-2.378	-3.488	38	.001

Based on the table 4.9, *output paired sample test* show that the result of comparing pre-test and post test by calculation of T-test. Output shows that mean of pre-test and pos-test is (-5.667), the standard deviation is (10.145), the standard error mean is (1.624), the lower difference is (-8.955), the upper difference is (-2.378). The result of T-test is (-3.488), df is (38) and significance (2-tailed) is 0.001.

B. Hypothesis Testing

From the data analysis it could be identified that:

1. When the value of t_{count} is higher than t_{table} in $df=38$ with the significant level 0.05, the alternative hypothesis (H_a) was accepted and the null hypothesis (H_o) was rejected. It means that there was significant difference of reading comprehension before and after being taught by using reciprocal teaching.
2. When the value of t_{count} is lower than t_{table} in $df=38$ with the significant level 0.05, the null hypothesis (H_o) was accepted and the alternative hypothesis (H_a) was rejected. It means that there was no significant difference of reading comprehension before and after being taught by using reciprocal teaching

The mean of students' reading comprehension scores before being taught by using reciprocal teaching of 39 students is (78.72) and the mean of students' reading comprehension after being taught by using reciprocal teaching of 39 students is (84.38). Using T-test analysis shows that the result of t_{count} is (-3.488)

Based on the calculation of T-test, the researcher gave interpretation to t_{count} . First, researcher considered the $df = N-1$. With the df is $(39-1=38)$. The researcher has chosen the t_{table} with significant level 0.05. Then researcher look at the t_{table} of df (38) and the critical value 0.05 is (1.685).

By comparing the "t" that researcher has got in calculation t_{count} (-3.488) and the value of t_{table} is (1.685), it means that t_{count} is higher than t_{table} ($-3.488 > 1.685$). Because the t_{count} is higher than t_{table} , so the alternative hypothesis (H_a) is accepted. It means that there is significant difference achievement on the students' reading comprehension before and after being taught by using reciprocal teaching.

It can be concluded that reciprocal teaching is effective strategy to teach reading comprehension in Senior High School.

C. Discussion

On the teaching and learning process in this study was divided by researcher into three steps, there are pre-test, treatment and post-test. In the first step, researcher administered the pre-test at X-IIK class consisting of 39 students. These steps were conducted by researcher to know how the students' reading comprehension on the narrative text. The first step has been done by teacher and students before being taught by using reciprocal teaching.

The second step is treatment. The treatment was given by researcher after giving the pre-test. The treatment was the teaching reading using reciprocal teaching. The researcher gave the material about narrative text. The last step, researcher conducted post-test to 39 students of X-IIK class, the test was multiple choice of narrative text consist of 30 items.

After calculating the data on SPSS 16.0 version, the finding of this research can be known that the mean of students' reading comprehension scores before being taught by using reciprocal teaching is (78.72) and the mean of students' reading comprehension after being taught by using reciprocal teaching is (84.38). Using T-test analysis shows that the result of t_{count} is (-3.488) is higher than t_{table} (1.685) with significant level 0.05. Because the t_{count} is higher than t_{table} , so the alternative hypothesis (H_a) is accepted and null hypothesis (H_o) is rejected. It means that there is significant difference achievement on the students' reading comprehension before and after being taught by using reciprocal teaching.

This improvement of post-test may be predicted during taught by using reciprocal teaching, students were more motivated. They felt that working in group is easier than working by themselves. This research was in line with Defiana's finding (2012) that reciprocal teaching motivated the students. They could help and support each other in mastering the material taught by the teacher.

Besides, when answering these questions on reading text, students could directly ask to themselves when they found some questions that made them confused to answer or comprehend, this finding is in the same line with Palinscar & Browns' statement (1984) that mature learner are capable in interrogative critical role for themselves and Jbeili in Faryadi's statement (2007) that "As such, learners improve their critical thinking and intellectual skills by learning from one another".

Moreover, students were also more active when doing their role because they were demanded by their group to finish every paragraph correctly using reciprocal strategy which modeled by teacher before. In addition, they could ask some confusing words or sentences in group so they felt easy to do the task. This finding is supported by Young et al statement (2006) that when leader explain the procedure of reciprocal teaching, students are not passive but instead they encourage to engage in discussion and supported by Nugraha's statement (2011) that "By reciprocal teaching, student become more active joining and pay attention to the lesson" and according to George in Faryadi (2007) "There are five important value added principles of cooperative learning. Firstly, Interdependency

among the learners, they learn together and learning is part and parcel of each other, they work in a small group and plan to finish a product together.”

In addition, every procedure of reciprocal teaching can give some feedback to students for knowing their level of competence which they have. This finding is in line with Palinscar & Brown’s statement (1984) that “the procedure provides an opportunity for the students to make overt their level of competence”.

Then, students also could answer some questions or sentences that make them confused to be comprehended because students did it in group so they can overtly ask some questions in other peer and teacher become leader always monitor the students. This finding is in the same line with Young et al statement (2006) that reciprocal teaching is based on active socialization between student in group and student with leader, that constructed the knowledge from their negotiating or communicating.

Furthermore, students not only could answer some question but also students can understand in every lesson about reading especially reading narrative text because every student could interact naturally in group, asking and answering question for each other. This finding is in the same line with Palinscar & Brown’s statement (1984) that by studying naturally with interactive and mimic, the students become able to understand the material.

Besides, in every reading some text, students encouraged to answer the question. Spontaneously they connected their prior knowledge and the reality in addition connected with their peer in group to get the best answer of the question. This finding is in the same line with Young et al statement (2006) that reciprocal

teaching fosters meaningful learning which integrated with other texts, prior knowledge and other perspectives.

In addition, during reading process, students do their reading with reciprocal teaching and every role which they got, they should be responsible of their answer or their work to get more complete answer in one text. This finding is along with the finding of Rosenshine & Meister (1993:5) that “the amount of support provided was determined by the individual needs of students as they progressively took on more responsibility in the strategies to the reading text”.

According to explanation above, it can be concluded that reciprocal teaching is effective to teach reading comprehension because it can improve the students' achievement in reading comprehension (Defiana: 2012, Nugraha: 2011, utami: 2013). The result of this research also revealed that reciprocal teaching is effective strategy to teach reading comprehension in Senior High School.