CHAPTER IV

FINDING AND DISCUSSION

In this chapter the researcher reported the result of the study that held in 9th - 18th grades of SMP Muhammadiyah 17 Surabaya in academic year of 2016/2017. It describes the teaching process of experimental and control class, the result of pretest, homogeneity test, normality test,result of post test, t-test, result of students responses, and discussion.

4.1 Findings

4.1.1. Teaching Process in Experimental Class

Teaching process in experimental class hold on 17-18th of May 2017 in 8D of SMP Muhammadiyah 17 Surabaya thought by Directed Reading Thinking Activity (DRTA) through Numbered Head Together (NHT) Strategy that consist of three stages those are before reading, while reading and after reading that was mention in lesson plan (See appendix VI). Before reading teacher explain about recount text, generic structure and the feature then students make a group consist of 5 to 6 students and teacher had numbered all students in each groups then students predict the content of the text by answering the prediction worksheet related to the title, pictures and vocabularies given. Then teacher call one of number to present or write their prediction result in front of the class. After that teacher had given the text to all groups and students read together with their members, while reading students would understand and find out the right answer what have they predicted before and all member have ensured all members comprehend the text. After reading teacher and students evaluated their prediction then teacher call one of number and asked question related to the text to measure their comprehension.

4.1.2 Teaching Process in Control Class

Treatment in control class held on 16-17th of May 2017 in 8C SMP Muhammadiyah 17 Surabaya thought by conventional strategy or three phase technique that usually teacher used in classroom. The strategy was divided into opening, core activities, and closing activity. Opening activity consist of teacher gave greeting to the students and check the attendance then explained the objective of the activities and explained the recount text, generic structure and the feature of recount text. Core activities consist of teacher gave reading text to all students and one of students read the text loudly then the students asked the difficult vocabularies to the teacher or they can open the dictionary. Next the teacher gave the comprehension questions individually to check their reading comprehension. In closing activity teacher gave the feedback and ask the students difficulties in understanding recount text after that teacher said greeting for closing the learning process.

4.1.3 The Result of Pre-test

Pre-test was held on 10th and 15th of may 2017 given in control and experimental class to know the students first ability in reading comprehension of recount text before applying DRTA through NHT strategy. The test was 25 multiple choices of reading comprehension. Given in 8D and 8C SMP of Muhammadiyah 17 Surabaya.

Table 4.1. Pre-test Result of Control and Experimental Class.

Students	Control Class	Experimental Class
1	72	80
2	60	68
3	56	56
4	72	76

5	68	76
6	76	60
7	80	76
8	76	88
9	84	84
10	60	56
11	72	80
12	88	80
13	60	52
14	84	80
15	72	68
16	80	84
17	60	80
18	72	76
19	60	64
20	68	70
21	88	72
22	60	68
23	72	80
24	70	48
25	64	64
26	84	68
27	64	76
Sum	1922	1930
Mean	71,18	71,48
Max score	88	88
Min Score	56	48

Based on the table 4.1 above showed the result of pre-test of control and experimental class before received the treatment. The data showed the mean score of control and experimental class is 71.18 and 71.48 the differences mean scores of both control and experimental class was not too far it means that both of class have same knowledge and still under the standard of minimum competent (75).

4.1.4 Homogeneity Test

Test of homogeneity is to show that samples have the same variance or not (Gunawan,2013:79). The researcher counted homogeneity test using SPSS software version 21 it is from the pre-test scores of students reading comprehension of recount text from control and experimental class.

Table.4.2.Test of Homogeneity of Variance

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Pre-test	Based on Mean	.321	1	52	.574
	Based on Median	.167	1	52	.684
	Based on Median and with adjusted df	.167	1	47.925	.684
	Based on trimmed mean	.275	1	52	.602

Table 4.2 showed that the output test of homogeneity the hypotheses used for testing homogeneity are

H_0 : The variance is Homogeny

H_1 : The variance is not Homogeny

To know the homogeneity of variance the researcher had to determined the level of significance that is $\propto$ =0.05. If sig>0.05 the data is homogeny in otherwise if sig<0.05 the data is not homogeny. The table above showed that *Based on mean* obtained that sig =0.574

it is higher than 0.05 (0.574>0.05) it mean that H_0 is accepted so the data is homogeny.

4.1.5 Normality Test

The test of normality distribution is to know the sample of data distributed normal (Gunawan,2013:70) the researcher used SPSS software version 21 using *Kolmogorov-Smirnov* technique to test of normality data. It is counted from post-test scores of students reading comprehension of recount text both control and experimental class.

Table. 4.3. The Result of Normality Test

One-Sample Kolmogorov-Smirnov Test

		Experimen	Control
N		27	27
Normal Parameters[a,b]	Mean	80.74	72.37
	Std. Deviation	10.002	9.149
Most Extreme Differences	Absolute	.159	.136
	Positive	.159	.116
	Negative	-.137	-.136
Kolmogorov-Smirnov Z		.827	.705
Asymp. Sig. (2-tailed)		.501	.703

a. Test distribution is Normal.

The table 4.3 showed the result of SPSS software version 21 for normality test. The hypotheses are :

H_0 : The data is distributed normal .

H_1 :The data is not distributed normal.

The level of significance is95% (α=0.05). Determined If sig>0.05 it mean the sample is distributed normal if sig< 0.05 it mean the data is not distributed normal. It can be seen from the table 4.1.3 showed that sig. (2-tailed) of control and experimental class are 0.703 and 0.501 both are higher than 0.05 it mean that H_0 is accepted so the data is normal distribution.

4.1.6 The Result of Post-test

    Post-test was held on Mei 18th 2017. It is given after applying DRTA through NHT method for experimental class and given convesional method for control class. The test was 25 multiple choice of reading comprehension of recount text given in 8C and 8D as a control and experimental class.

Table 4.4. The result of post-test

Students	Control class	Experimental Class
1	76	84
2	64	80
3	60	76
4	68	80
5	72	84
6	76	64
7	80	80
8	76	96
9	84	88
10	60	64
11	76	88
12	84	94
13	52	64
14	80	72
15	72	96
16	84	80
17	64	80
18	76	74
19	64	64
20	72	80
21	88	96
22	60	80
23	76	96
24	76	76
25	68	80
26	84	76
27	64	88
Sum	1954	2180

Mean	72,37	80,74
Max Score	88	96
Min Score	52	64

Based on table 4.4 above showed that mean score of control class was 72.37and experimental class was 80.74.It is showed that mean score of experimental class is higher than control class it is indicate the students reading comprehension more increased the students score after applying DRTA though NHT than conventional strategy.

4.1.7 T- Test

The purpose of the research is to measures the effectiveness of Directed Reading Thinking Activity Through Numbered Head Together between control and experimental class in students reading comprehension so the researcher used independent T-test and paired sample T-test to answer the hypothesis

$H_0 : \mu_1 = \mu_2$. sig > 0.05

There is no significant different of the reading method (DRTA through NHT) in students reading comprehension.between experimental and control group.

$H_1 : \mu_1 \neq \mu_2$. sig < 0.05

There is significant different of reading method (DRTA through NHT) in students reading comprehension. between experimental and control group.

Table 4.5. The Result of Independent T- test

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
Post_test	Equal variances assumed	.007	.933	3.209	52	.002	8.370	2.609	3.136	13.605
	Equal variances not assumed			3.209	51.592	.002	8.370	2.609	3.135	13.606

Table 4.5 above is the result of analysis of SPSS software version 21 to analyze of mean score post-test of control and experimental class. From the table above there are two analysis first is test of equal variance assumed or not assumed. Second is T-test to know is there any significant different between control and experimental class. For test of equal variance assumed it can be seen from sig. of Levene's test for equality of variances is known 0.933>0.05 it mean that variances of groups are equal. For knowing the significant difference it can seen in the line sig.(2-tailed) of t-test of equality of mean 0.002<0.05.It is indicate that H_0 is discarded meanwhile H_1 is received. It can be concluded that the strategy is effective than conventional strategy.

Then the reseacher conduct the paired sample T-test to know the statistical differenece of the Directed Reading Thinking Activity (DRTA) through Numbered Head Together (NHT) before and after applying the strategy.

Table 4.6. The result of paired sample

		Paired Differences							Sig. (2-tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	Df	
Pair 1	post_test - pre_test	9,259	8,981	1,728	5,706	12,812	5,357	26	,000

Table 4.6. above showed the statistical result of post and pre-test data of experimental class. To know the statistical difference it can be seen from the sig (2-tailed) it is showed that the value is 0.000 smaller than 0.05 (0.000 < 0.05) it mean that H_0 is discarded and H_1 is received it can be concluded that there is statistical difference before and after applying DRTA through NHT strategy.

4.1.8 The result of Students Responses

To answer the second research question about students responses researcher gave the questioner to the students after post-test to confirm is the strategy appropriate and effective for their learning English reading or not. The questioner consist of 12 items with four answer that are SA(Strongly Agree) A (Agree) DS (Disagree) SD (Strongly Disagree) given in experimental class consist of 27 respondents.

Chart 4.1 The result of students Responses

Students Responses abouth applying DRTA Through NHT
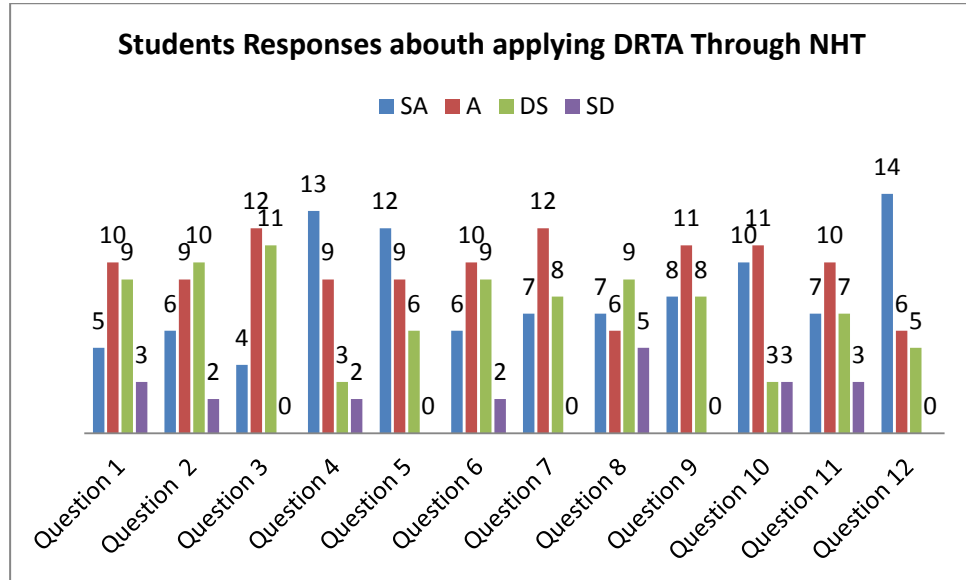
Based on the chart above there are 12 number of questions, the questions are divided into three categories first is students response about English, second is the advantages of using DRTA through NHT, and third is students responds in applying DRTA trough NHT. First is students respond about English. It measures students interest and their seriousness in learning English. The statements about students respond are in number 1, 2 and 3 that described in table below:

Table 4.7. Students Response about Learning English

No	Statements	SA	A	DS	SD
1.	I like English lesson.	5	10	9	3
2.	I like to read English text.	6	9	10	2
3.	I like learning English in the class because I involved in learning activities.	4	12	11	0

Based on the result above it can be seen from the first statement about interesting in learning English there are 15 respondents (56%) answer agree about learning English. Second statement about

interesting in reading English text, there are half of students agree that they like reading English text (55%). Third statement there are 16 (59%) respondents agree their involving in process of learning English.

   Second is students response about the advantages of applying DRTA through NHT in their reading comprehension. The statements are in number 6,7,9,10,11 as below :

Table 4.8. Students Response about the Advantages of DRTA through NHT.

No	Statements	SA	A	DS	SD
6	DRTA through NHT strategy can help me to comprehend the content of the text.	6	10	9	2
7	Through DRTA and NHT strategy can motivate me to understand the content of the text.	7	12	8	0
9	DRTA through NHT strategy can help me to answer the questions well.	8	11	8	0
10	Pictures and vocabularies can ease me to predict the content of the text.	10	11	3	3
11	Through DRTA and NHT strategy can help my critical thinking and teamwork.	7	10	7	3

   From the statement number 6 there are 16 respondents (59%) said that DRTA through NHT can help students comprehend the content of the text. Statement number 7 said that 19 respondents (70%) can be motivated to learn comprehend the text. Statement number 9 there are 19 respondents (70%) said that DRTA through NHT strategy helps the students complete their reading assignment well. statement number 10 said that 21 respondents (78%) pictures and vocabularies can ease the students to predict the content of the text. And the statement number 11 there are 17 respondents (63%) said that DRTA through NHT can helps students's critical thinking and teamwork.

   Third is students responses about application of DRTA through NHT obtained by 3 statements that are number 4,5,8and 12. Here are the result of questioner.

Table 4.9. Students Response about Applying DRTA through NHT.

No	Statements	SA	A	DS	SD
4	DRTA through NHT is new strategy for me.	13	9	3	2
5	DRTA through NHT is interesting strategy.	12	9	6	0
8.	Through DRTA and NHT I can played actively in learning English.	7	6	9	5
12	Learning English process of DRTA through NHT strategy more fun and enliven the atmosphere.	14	6	5	0

According to data above statement number 4 there are 81% from 22 respondents said that DRTA through NHT is new strategy for them. Statement number 5 there are 78% from 21 respondents said that DRTA through NHT strategy is interesting. Statement number eight said that 13 (48%) respondents played actively in learning English. Statement number 12 there are 80% from 20 respondents said that process of DRTA through NHT more fun and enliven learning atmosphere.

Based on the result data of questioner above It can be said that students responses about applying DRTA through NHT for their reading comprehension is positive.

4.2 Discussion

Based on the analysis scores of applying Directed Reading Thinking Activity (DRTA) through Numbered head together (NHT) was found that the strategy was effective and appropriate in students reading comprehension in eight grades of SMP Muhammadiyah 17 Plus Surabaya. It can be seen from the average scores of pre and post-test, result of T-test and students response. The result of pre-test between control and experimental class (71.18 and 71.48) both of class have almost same knowledge before treatment given then the mean score of post-test (72.37 and 80.74) increased 1.19 points in control and 9.26 points in experimental class.Then independent sample test to measure post-test scores of both control and experimental class and the value

indicated $0.002 < 0.05$ so H_1 was received it means that there was statistically difference of post-test both experimental and control class. Paired sample test to measure the pre and post-test scores of experimental class the value was $0.000 < 0.05$ so H_1 was received it means that there was statistically difference of pre and post-test of experimental class. The SMP Muhammadiyah 17 was determined that the achievement percentage is 70% and the result of post test showed that there was 22 students (77%) was achieves the standard of minimum competence (75). Then the result of students responses indicated that more than 50% respondents said positive responses.

The significance of the strategy was influenced of teacher and students activities in classroom. Teacher has been applying lesson plan completely and help students achieved the objectives of learning in lesson plan such as identified the objectives of recount text, structure of paragraph, topic, main idea and specific information of recount text. Then effectively applying directed reading thinking activity through numbered head together in classroom well. Teacher can organized their students to make groups and motivated them to predict the content of the text by giving set of pictures and vocabularies, although there are some students make noisy but the teacher can handle it well. Students follow the teacher instruction very well and doing learning process actively so tha they can achieved the objectives of learning well such as can identified the objectives of recount text, structure of paragraph, topic, main idea and specific information of the recount text which the students did not understand about recount text before, and also they can become good teamwork to answer the questions . The effectiveness of the strategy was supported by Moreillon (2007: 76) DRTA increasing students background knowledge and further literal meaning using text and illustration and their background knowledge or experiences in process of prediction and use comprehension process actively. According to Kagan et.al (2009:4.4) by applying NHT students can get their corrective feedback from any sources (text, pictures, and their partner). From combination of both strategies the

students can predict the text effectively and the process of learning become enliven learning atmosphere.

To convince whether this strategy was effective and appropriate to measure students' reading comprehension the researcher gives 12 questions about student's responses about applying DRTA through NHT. The questioners divided into three categories that are student's responses about English subject, advantages of DRTA through NHT and their feelings about applying DRTA throughNHT. The result showed that more than 50% students said positive responses (strongly agree and agree). It can be assumed that Directed Reading Thinking Activity (DRTA) through Numbered Head Together (NHT) is effective and appropriate strategy in students reading comprehension of eight grades students in SMP Muhammadiyah 17 Surabaya.