

## **CHAPTER IV**

### **RESEARCH FINDING AND DISCUSSION**

This chapter presents the result of the findings in the fields and the achievement of the tenth graders' in comprehending news item text – based English broadcast using cooperative listening at SMA Wachid Hasjim Parengan. In this study, quantitative method measured by t-test formula that applied to calculate the result of pretest and post-test from experimental and control group. This chapter divided into three subheadings, there are: data presentation, hypothesis, and discussion. Data presentation covers the result of pretest of experimental and control group and the result of posttest of experimental and control group.

#### **A. Data Presentation**

This study was conducted to find out whether there is significant improvement of the tenth grader's achievement in comprehending news item text – based English broadcast using cooperative listening in SMA Wachid Hasjim. This study also wants to know if there are any difficulties during the processes of cooperative listening. The data collected from the students' pretest and post-test score. The post-test was administrated one day after the treatment to both experiment and control groups were done. Before that, the researcher administrated pretest for all the students. The result of pretest showed that the students of X – 1 and X – 2 have similar ability in English listening skill.

## **1. The Result of Pretest of Experimental and Control Group**

The data was collected from two groups; the experimental and control groups. The pretest was administrated before the cooperative listening was implemented in experimental group.

Pretest was conducted on the 15<sup>th</sup> of July 2013. The pretest in experimental group was given on the first meeting, while the control group was given pretest on the second meeting. Pretest was conducted by the researcher as the successor of the English teacher. The researcher asked the students to listen an audio podcast from VOA entitled “Amizade” and answer some questions (See Appendix 1 ). The pretest was conducted to determine the students’ English listening ability.

### **a. The Result of Pretest of Experimental Group**

As the test has been proven to be an instrument, pretest was administrated to the class X – 1 at SMA Wachid Hasjim Parengan as experimental group in this research. There are 20 students in class X – 1 that has been following the pretest. The test consists of 25 questions. The mean score of experimental group can be seen in the following table:

**Table 4.1**

**The Result of Pretest of Experimental Group  
( on 15<sup>th</sup> of July 2013 )**

Subject	Score
1	72
2	80
3	76
4	50
5	76
6	64
7	72
8	60
9	64
10	72
11	76
12	50
13	52
14	68
15	52
16	56
17	60
18	56
19	52
20	60
<b>Sum</b>	<b>1268</b>
<b>Mean</b>	<b>63.4</b>

The table shows that the sum of the pretest score of control group was 1268. While the mean of the pretest score of the control group was 63.4. The mean is gotten from counting the students' score of listening test which consist of 25 questions and divided by numbers of students (20).

b. The result of pretest of control group

The pretest also administrated for class X-2 in SMA Wachid Hasjim Parengan as control group where control group was not administrated by guiding question technique after pretest was given. The control group have been taught by common technique that usually used by the teacher. Pretest of control group also consists of 25 questions based on VOA podcast. The mean score of control group can be seen in the following table:

**Table 4.2**

**The Result of Pretest of Control Group**

**( On 15<sup>th</sup> of july 2013 )**

Subject	Score
1	72
2	60
3	60
4	80
5	64
6	60

7	48
8	56
9	76
10	72
11	64
12	60
13	52
14	48
15	52
16	52
17	60
18	60
19	88
20	72
<b>Sum</b>	<b>1256</b>
<b>Mean</b>	<b>62.8</b>

The table shows that the sum of the pretest score of control group was 1256. While the mean of the pretest scores of the control group was 62.8. The mean gotten from counting the students score pretest that consists of 25 questions based on VOA Podcast and divided by numbers of students (20). Most of them have difficulties in following the speaker said.

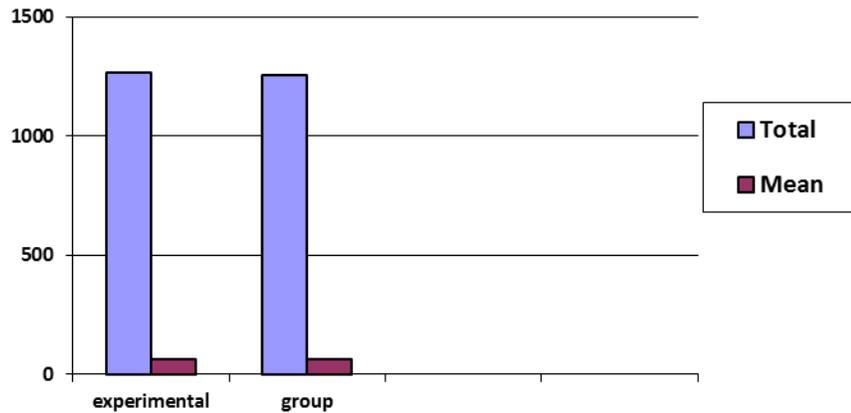
The score of experimental group and control group can be seen as following table below:

**Table 4.3**

**The Result of Pretest of Experimental and Control Group**

Group	N	Total	Mean
Experimental Group	20	1268	63.4
Control Group	20	1256	62.8

**Chart of Pretest Score and Mean in the Both Groups**



**Figure 4.1**

This table shows that the result of pretest of experimental group was 63.4 and the control group was 62.8. The score of pretest both groups did not so different, and almost the same. It is means that students in classes X – 1 and X – 2 have the same ability in

listening to the news item text. From the analysis of the pretest in experimental group and control group, it can be concluded that the students' of the two groups had equal ability before the treatments were given.

## **2. The Treatment Processes of Experimental and Control Group**

After giving pretest, the researcher taught listening to experimental and control groups. The experimental group was taught use cooperative listening technique and the control group does not taught by cooperative listening. Regarding to the treatment given, experimental group will work in pairs while the control group works individually.

On the first meeting of the experimental class, the student responses were good even they still confused with the purpose of this technique. For the first time, they listen to the audio in groups but they do not share their opinion in their groups.

Then, after the direction was repeated the students understand that they need to share their opinion with their partner. For the first meeting the researcher used a VOA broadcast "Herbs and Spices May Improve Your Health" for the listening material. This material was used for both experimental and control class. The first meeting for experimental group was on 17<sup>th</sup> of July 2013 on the third and fourth class while the control group was fifth and sixth. Then, on the second meeting the researcher used a VOA broadcast "Investigating the Crash of Asiana Airlines Flight

214“for listening material in both class. The second meeting for the experimental class was on 18<sup>th</sup> of July 2013 on the first and second class and for the control class was on sixth and seventh class.

In each meeting of the experimental group, the researcher gave students some games to make them concentrate to the topic. After done the games, the researcher divide the students into 5 groups and play the audio track once. After the first played, the researcher gave the students opportunity to have discussion with their groups for about 15 minutes. Then, the researcher let the students to listen to the audio for two times more. After that the students asked to make the final discussion with their groups and share their opinion in front of the class. And for the control group, the researcher gave students the materials like the teachers do, by giving them an audio make them listen to each words.

### **3. The Result of Post-test of Experimental and Control Group**

After giving treatment to the both classes, the researcher held a post-test. The post-test was attended by 40 students. There were 20 students from experimental group and 20 students from control group. The post-test was conducted on July 22, 2013. Post-test in experimental group was conducted on the third and fourth meeting, while the control group was given pretest on the first and second meeting. Post-test was conducted to know the students' achievement in comprehending news item text – based English broadcast after the implementation of cooperative listening.

a. The Result of Post-test of Experimental Group

The data was gotten by giving post-test after the implementation of cooperative listening to the experimental group. Post-test on the experimental group was held on the third and fourth meeting on July 22, 2013. Before posttest was given, the treatments were done twice on July 17, 2013 and July 19, 2013. The first treatment used “ Herbs and Spices May Improve your Health” as the topic and the topic of second meeting was “Investigating the Crash of Asiana Airlines Flight 214”.

The score of post-test of experimental group was gotten from give the same type of test with the pretest. The mean score of post-test of experimental group can be seen in the following table :

**Table 4.4**

**The Result of Post-test of Experimental Group**

**( On 22<sup>nd</sup> of july 2013 )**

Subject	Score
1	54
2	68
3	72
4	72
5	72
6	68
7	74

8	80
9	76
10	74
11	80
12	74
13	82
14	86
15	86
16	86
17	84
18	88
19	96
20	92
<b>Sum</b>	<b>1564</b>
<b>Mean</b>	<b>78.2</b>

Based on the table above, it can be concluded that scores of post-test in experimental group increased. The mean of post-test of experimental group was 78.2. It means that the mean score of experimental group increased about 14.8 points, from 63.4 to 78.2. It was gotten from the total of 25 questions that given based on the VOA Podcast then divided by the numbers of the students (20). In the test, the question consists of vocabulary question and comprehending questions. Based on those result, it can be concluded that the students had improvement in understanding the content of the news item.

b. The Result of Post-test of Control Group

Post-test was also given to the class X-2 at SMA Wachid Hasjim Parengan as a control group. The control group was not given the treatment by cooperative listening but taught by common technique. The students asked to listens the audio and answer the question individually. The post-test was attended by 40 students at the third and the fourth meeting on July 22, 2013. The data of post-test of control group was analyzed by the numbers of the true answers of the questions based on the VOA Podcast. The result of post-test of control group can be seen in the following table:

**Table 4.5**

**The Result of Post-test of Control Group**

**( On 22<sup>nd</sup> of july 2013 )**

Subject	Score
1	64
2	54
3	60
4	60
5	60
6	60
7	60
8	50
9	68
10	64

11	72
12	64
13	50
14	92
15	60
16	80
17	60
18	56
19	64
20	60
<b>Sum</b>	<b>1258</b>
<b>Mean</b>	<b>62.9</b>

On the contrary, the post-test of control group had not improved significantly as the experimental group. From the table above it can be seen that the students' English listening ability mean score of post-test of control group was 62.9. It means that the students' ability of control group was poor. Their ability in understanding the news item also poor and they have no significant improvement. The scores were improved but only one or two score.

From the data above, it can be concluded that class X – 2 as a control group did not get some improvement. The differences between pretest and post-test mean score were about 0.1 point, from 62.8 to 62.9. It is lower than experimental group. The result of the post-test

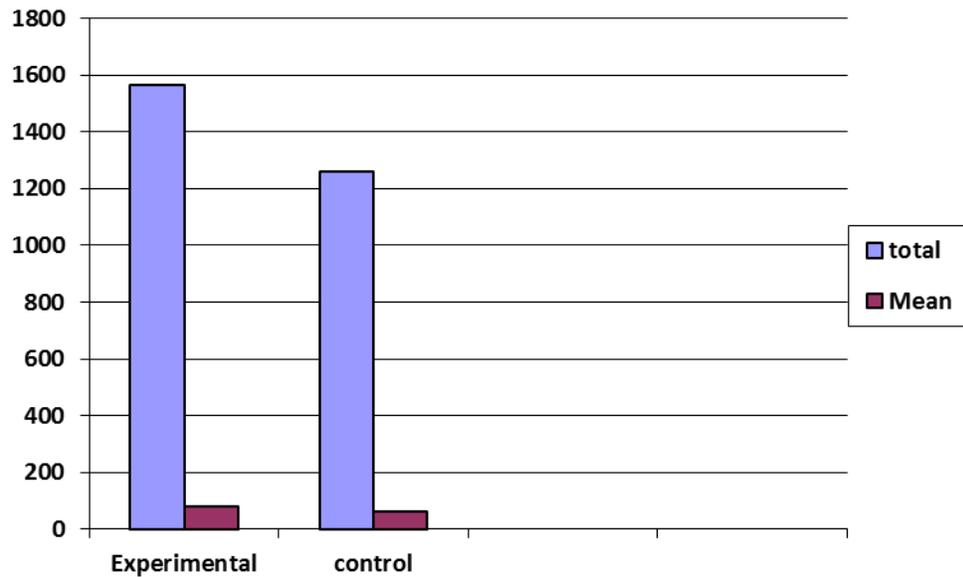
score and mean score of experimental group were presented in the following table:

**Table 4.6**

**The Result of Experimental and Control Group**

Group	N	Total	Mean
Experimental Group	20	1564	78.2
Control Group	20	1258	62.9

**Chart of Post-test Score and Mean in the both of Groups**



**Figure 4.2**

From the data above it can be seen that the mean score of experimental group was 78.2 and the mean score of control group was 62.9. The results of the post-test showed that there were differences in mean score between experimental group and control group. It means that the students of the two groups had different ability after the treatment was given. Students' scores after treatment in experimental group were increasing. It briefly described in the chart above to see whether the experimental group improved students' English listening ability of news item text or not.

#### **4. The Result of Observation Checklist**

To know whether this technique was applicable based on the listening principle or not the researcher used observation checklist. The observation was done by the teacher during the researcher implement cooperative listening on 17<sup>th</sup> and 18<sup>th</sup> of July 2013. Based on the observation there are ten principles that appropriate with this technique, as follows:

- a. There are brainstorming before the main material was given.
- b. The students listening to short conversation first before main materials.
- c. The students given some vocabularies first related to the topic.
- d. The students made to be focus on the topic of the audio by giving some games or others related to the topic.
- e. Played the audio more than once.

- f. Make the students concentrate to the activity by giving some clues related to the topic.
- g. The audio track played from the start until finish without pause the track anytime.
- h. The audio track repeated after the audio track done played.
- i. The teacher drags the students to give response to the content of the audio track after listening activity.
- j. The teacher gives opportunity to each student to share their opinion.

## **5. The Result of Questionnaires**

To answer the second question of this research, the researcher was use questionnaires to know whether the students' faced difficulties or not when using cooperative listening. The questionnaire was given to the students on 20<sup>th</sup> of July 2013. Here is the result:

$$= \frac{1786}{4 \times 15} \times 100\%$$

$$= 29,77\%$$

**Table 4.7****The Result of Questionnaire**

Question	Answer			
	Very Agree	Agree	Not Agree	I don't know
1. I like listening lesson	1	2	14	3
2. I like listening activity during English lesson	-	3	13	4
3. I faced difficulties during the audio was played	10	5	-	5
4. Listening in English lesson is the most difficult lesson	15	4	-	1
5. I like the way teacher deliver listening lesson in the class	1	3	15	2
6. I like works in group during listening in English lesson	10	5	2	3
7. Speaker in the audio track speak too fast	15	4	-	1
8. I can not work together with my friend in group	5	3	10	2
9. I can not share my opinion freely	8	7	2	3

10. I lack of vocabulary that used in that audio	16	3	-	1
11. I lack of confidence in sharing my opinion ta my friend	15	2	1	2
12. My friend in group does not give full attention that make some problems in group	10	4	2	4
13. I can not spell the word in a correct spelling	16	3	1	-
14. Cooperative listening make me bored	3	1	15	1
15. I can understand the material well after learn cooperatively	16	4	-	-

## **B . The Data Analysis**

After collecting data by giving pre-test and post-test from experimental and control group, then the data was analyzed by calculate the mean of each group. The researcher calculated the different mean of post-test both group using t – test to know the result was significant or not. T – test was a tool used to compare hypothesis of two sample test if the data was on

the interval ratio scale<sup>1</sup>. T – test was aimed to compare whether the mean score of post-test both groups were significantly different or not. Before that, the researcher was did normality test and homogeneities test. The normality test was used to check whether the post-test score of experimental group and control group were normally distribution or not. While homogeneity test was used to calculate the homogeneity of variance of both experimental and control group post-test score<sup>2</sup>. The procedure is as follows:

### 1. Normality Test

The normality test was used to check whether the posttest score of experimental group and control group were normally distribution or not, the following steps are:

- a. Determine the limitation of interval class, the formula is :

$$\begin{aligned} \text{The long interval class} &= \frac{96 - 50}{6} \\ &= \frac{46}{6} \\ &= 7.67 \text{ become } 8 \end{aligned}$$

- b. Arrange into a frequency distribution table

**Table 4.8**

**The Result of Normality Test Table**

Interval	$f_0$	$f_h$	$f_0 - f_h$	$(f_0 - f_h)^2$	$\frac{(f_0 - f_h)^2}{f_h}$
----------	-------	-------	-------------	-----------------	-----------------------------

<sup>1</sup> Nanag Hartono, *Metode Penelitian Kuantitatif*, (Jakarta : PT. Raja Grafindo Persada,2011), 171

<sup>2</sup> Arifin, Zaenal, *Metodologi Penelitian Pendidikan*,( Jakarta:Lentera Cendekia,2009), 123

					$f_h$
50 – 57	3	1	2	4	2
58 – 65	8	5	3	4	2
66 – 73	9	14	-5	9	1,8
74 – 81	10	14	-4	25	1,79
82 – 89	6	5	2	16	1,14
90 – 97	4	1	3	1	0,17
<b>Total</b>	<b>40</b>	<b>40</b>	<b>0</b>	<b>9</b>	<b>9,15</b>

- c. Calculate  $f_h$  ( the frequency of the expected)
- d. Calculate  $f_h$ , based on the percentage area of each field in normal curve, then multiplied by the number of data from the result of pretest ( the number of individuals in the sample). Number of individuals in the sample =  $n$ .
- The first line :  $2,7\% \times 40 = 1,08 = 1$
  - The second line :  $13,53\% \times 40 = 5,41 = 5$
  - The third line :  $34,13\% \times 40 = 13,5 = 14$
  - The fourth line :  $34,13\% \times 40 = 13,5 = 14$
  - The fifth line :  $13,53\% \times 40 = 5,41 = 5$
  - The sixth line :  $2,7\% \times 40 = 1,08 = 1$

e. Calculate the value of  $f_0$  to the table columns of  $f_h$ , and then calculate the value of  $(f_0 - f_h)^2$  and  $\frac{(f_0 - f_h)^2}{f_h}$

f.  $X_{table} = 53,3835$

$$Df = N_1 + N_2 - 2 = 20 + 20 - 2 = 38$$

$$\alpha = 0.05 = 5\%$$

g. Conclusion

Chi square value was 9,15 and chi square table was 53,3835 with  $df = 38$ , and alpha 0.05. it could be concluded that the data from the posttest of experimental and control group were normally distributed as chi square value ( 9,15) was smaller than the chi square table (53,3835).

## 2. Homogeneity test

The homogeneity test was used to check whether the post-test score of experimental group and control group have same variants or not.

The following steps of homogeneity test as followed:

a. Find the biggest variant score and the smallest variant score, the

formula is :

$$F = \frac{S_L^2}{S_s^2}$$

$$= \frac{99,41}{95,12}$$

$$= 1,045$$

Explanation :

$S_L^2$  = the larger of variance

$S_S^2$  = the smaller of variance

b. Find the F score

$$\alpha = 0,01$$

$$F = 0,01 (19/19) = 3,03$$

c. Conclusion

From the calculation above, F score smaller than the F table.

So the score of Posttest both group was homogeneity.

### 3. T test

The result of pre-test and post-test from experimental and control group was analyzed by normality and homogeneity test. The result above showed that those data were on interval and ratio scale. After the test of normality and homogeneity test, the next step was to analyze the data by t-test. The aim was to know whether there are differences between experimental and control group who was taught by cooperative listening and without cooperative listening.

The result of post-test of experimental and control group was analyzed by t – test formula. Before the treatment, the standard deviation and variant both of group was calculated manually using Microsoft excel. This table below presented the result of calculation.

**Table 4.9**

**The Result Calculation of Standard Deviation (sd) and Variance (v)**

Control Class		Treatment Class	
1	72	1	54
2	80	2	68
3	76	3	72
4	50	4	72
5	76	5	72
6	64	6	68
7	72	7	74
8	60	8	80
9	64	9	76
10	72	10	74
11	76	11	80
12	50	12	74
13	52	13	82
14	68	14	86
15	52	15	86
16	56	16	86
17	60	17	84
18	56	18	88

19	52	19	96
20	$\bar{X}_{60}$	20	$\bar{X}_{92}$
<b>Mean</b>	$\mu_1 = 63.4$	<b>Mean</b>	$\mu_2 = 78.2$
<b>St.Deviation</b>	$S_1 = 9.97$	<b>St.Deviation</b>	$S_2 = 9.75$
<b>Variants</b>	$S_1^2 = 99.41$	<b>Variants</b>	$S_2^2 = 95.11$

Next, the students' score of post-test calculated by the formula below:

- a. To test the result of post-test between experimental and control group. the formula is:

$$\begin{aligned}
 t &= \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{N_1} + \frac{S_2^2}{N_2}}} \\
 &= \sqrt{\frac{63.4 - 78.2}{\frac{99.41}{20} + \frac{95.11}{20}}} \\
 &= \sqrt{\frac{-14.8}{3.12}} \\
 &= -4.7435
 \end{aligned}$$

- b. Determining alpha ( $\alpha$ )

$$\alpha = 0,05$$

- c. After all data was calculated, the number of degree of freedom calculates. The formula is:

$$\begin{aligned}
Df &= (N1 + N2) - 2 \\
&= (20 + 20) - 2 \\
&= 40 - 2 \\
&= 38
\end{aligned}$$

From the calculation of the data above, it was found that standard deviation of the experimental group 9.97 while the control group was 9.75. T – value comparing with t – table distribution with significant 0,05 and degree of freedom (df) 38. It was found that t – table was 0.2638 while the result of t – value was – 4.7435.

So it was clear that there was significant different between the students' English listening achievement in news item text who were taught using cooperative listening and who were not taught by cooperative listening of the tenth graders at SMA Wachid Hasjim Parengan. The technique used in the experimental group was effective than the control group.

#### **4. Hypothesis Testing**

To test the hypothesis was by compare t – score with t – table. Before that, firstly the researcher look for the degree of freedom (db) by the formula  $db=n1 + n2 -2 = 20 + 20 - 2 = 38$ . Then the score of db was assessed on a table by significance level 5%. T – table score was 0.2638.

It can be seen that the t – value < t table at a significance level of 5%. It means that alternative hypothesis was accepted and approved of

rejected the null hypothesis. So, there was improvement of the tenth graders' achievement in listening news item text between experimental group who was taught by cooperative listening and control group who was taught without cooperative listening.

The mean score of post-test of experimental group was 78.2 and control group was 63.4. It means that mean score of experimental group better than mean score of control group. So cooperative listening was effective in teaching listening of news item text among students class X – 1 SMA Wachid Hasjim Parengan.

#### **5. The Result of Observation Checklist**

To know whether this technique was applicable based on the listening principle or not the researcher used observation checklist. Based on the observation there are ten principles that appropriate with this technique, as follows it can be concluded that cooperative listening technique is applicable based on the listening principle.

#### **6. The Result of Questionnaires**

Based on the percentage shows, there is no big difficulties that faced by the students. The students feel that this technique make them learn listening skill easily. If there any difficulties are:

- a. The speakers speak too fast
- b. The student does not understand how the words spelling
- c. The student does not understand much of the vocabulary

## **B. Discussion**

This section was intended to discuss the research findings, the data collected from the research instrument that has been provided the basic information about the object in this research. This study was about the effectiveness of cooperative listening. Cooperative listening was used as a new technique in teaching listening. This study was quasi experiment method that compares two techniques in teaching listening. First is teaching listening with common technique that used by the teacher then, compared with cooperative listening method. Class X – 1 as experimental group that has been taught by cooperative listening and class X – 2 as control group that has been taught without cooperative listening.

This study was conducted over four meeting. The first meeting was pretest that has been attended for both classes X – 1 and X – 2. In the second and third meeting of treatment, using material of cooperative listening in experimental group and the old technique in control group was the same. The fourth meeting was post-test. This was to know the students' English listening achievement in comprehending news item text after using cooperative listening. This test was conducted on two classes that were X – 1 as experimental group and X – 2 as control group.

### 1. The students score of experimental and control group

The result of students' achievement could be seen from pretest and posttest result. From the pretest, the mean score of experimental group

was 63.4 and mean score of control group was 62.8. It means that the students of the two groups had similarity skill before the treatment was given. From the pretest result could be concluded that students had difficulty in describing the object and organizing their idea in writing. The pretest and posttest was attended by 40 students. There were 20 students from experimental group and 20 students from control group.

On the other hand, the result of post-test both groups show different value. The mean score of experimental group was 78.2 and mean score of control group was 63.4. The experimental group achieved higher improvement than control group. It means that cooperative listening technique was more effective in improving student's achievement.

## 2. The use of cooperative listening to the experimental group

By using cooperative listening, students' were more motivated being an active in mastering English well by improving their composition. Furthermore cooperative listening allowed students' to think freely and relax during the lesson because they work in groups. Cooperative listening also made the students' feel that listening is not a difficult activity. In other words, cooperative listening helps the students organize their idea in comprehending the text when they were listening.

The result of this research shows that cooperative listening could help the English teacher in teaching listening. It can be concluded that teaching

English listening by common technique when the students' work lonely and no time for discussing with their friends make the students feel bored and did not interest to the learning processes. Unfortunately, listening was quite difficult to be taught. So, the teacher needs a new strategy that involves student's activeness in the learning process. So the students not only quiet and accept all the explanation from the teacher. A teacher must be able to make an interesting and fun learning.