CHAPTER IV

RESEARCH FINDING

A. Description of Data

In this chapter, the researcher will present the result of the data which was collected. The researcher conducted the research at MTs Mathla'ul Huda using experimental research in the design quasi-experiment. The sample for this study was two classes. The first is second grade A as experimental class which consists 20 students. The second is second grade B as controlled class which consists 20 students.

The researcher used the test for the instrument in this research. There are two types of test in this research, pre-test and post-test for both classes (experimental class and control class). The researcher tries to communicate with students in both classes by using English language to know their English speaking ability especially in pronunciation. After communicating with the students the researcher found that most of the students have difficulty in pronunciation, because they feel English is one of the most difficult subject to learn, and they feel bored with monotonous method that only reading, writing, listening and watching teacher's explanation. Especially if they get an assignment from the teacher when they don't really understand the material. The other cause, they listen (pay

attention) more often than speaking practice. The students' pronunciation in experimental class and control class were still under the standard. The researcher would like to increase and improve students' pronunciation ability in second grade of MTs Mathla'ul Huda using *English Sound Application* to increase students' interest in learning English, especially pronunciation by conducting quasi experiment. The researcher prepared the equipment that required to use *English Sound Application* in teaching learning process before entering the class, so that the learning process going well.

The result of student's score in pre-test and post-test carried out by experimental class and control class would be describe on the table below:

1. Students' Score Of Pre-Test and Post-Test At The Experimental Class

Table 4.1 The Data Of Pre-Test and Post-Test At The Experimental Class

No.	Name	X1	X2	total	Average
1.	AM	3.6	4.8	8.4	4.2
2.	AR	5.6	7.7	13.3	6.7
3.	DPS	6.8	9.5	16.3	8.2
4.	IS	4.4	5.1	9.5	4.8
5.	IAS	4.8	5.3	10.1	5.1
6.	LA	5.6	8.7	14.3	7.2
7.	MAJ	5.6	7.6	13.2	6.6

8.	MF	2.4	3.7	6.1	3.1
9.	MRN	5.6	9.3	14.9	7.5
10.	MYK	3.6	6.6	10.2	5.1
11.	SR	4.0	7.6	11.6	5.8
12.	SY	2.0	3.8	5.8	2.9
13.	SRR	4.8	7.5	12.3	6.2
14.	SRN	4.4	8.3	12.7	6.4
15.	SSQ	5.6	6.4	12.0	6.0
16.	SUI	7.2	9.3	16.5	8.3
17.	SI	2.8	6.1	8.9	4.5
18.	SZH	4.0	7.2	11.2	5.6
19.	TAZT	4.8	6.1	10.9	5.5
20.	ZM	3.6	6.2	9.8	4.9
total		91.2	136.8	228.0	114.0
max		7.2	9.5	16.5	8.3
min		2.0	3.7	5.8	2.9

Determining mean of variable X (variable I) in pre-test with formula:

$$M_1 = \frac{\Sigma X2}{N_1}$$

$$= \frac{91.2}{20}$$

$$= 4.6$$

Determining mean of variable X (variable I) in post-test with formula:

$$M_2 = \frac{\Sigma X2}{N_1}$$

$$= \frac{136.8}{20}$$

$$= 6.8$$

Determining mean deviation with formula:

$$M = M_2 - M_1$$

$$= 6.8 - 4.6$$

$$= 2.2$$

Note:

- X1 = students' post-test scores in experimental class

- X2 = students' post-test scores in experimental class

- M1 = mean of pre-test

- M2 = mean of post-test

- N1 = number of students

The table above is result of pre-test and post-test of students in experimental class. From the data the researcher know that the maximum score students got in pre-test was 7.2 and the minimum score students got was 2.0. 2.0 is the score below average, and it was lower score.

While in the post-test, majority of students have increased in their pronunciation. The result based on research conducted in post-test at experimental class got the score 136.8. The average score of post-test was 6.8. The maximum score students got in pre-test was 9.5 and the minimum score students got was 3.7.

Total score from pre-test and post-test in experimental class after being merged is 228. The average of score from pre-test and post-test was 11.4. The lowest score was 58. The maximum score was 16.5, while the maximum score that student can get if they answer the pre-test and post-test correctly in every test, they will get score 20.

The maximum score students got in post-test was 9.5 and the minimum score students got was 3.7. It shows that the score after the treatment increased.

The comparison of pre-test and post test at experimental class

Graphic 4.1
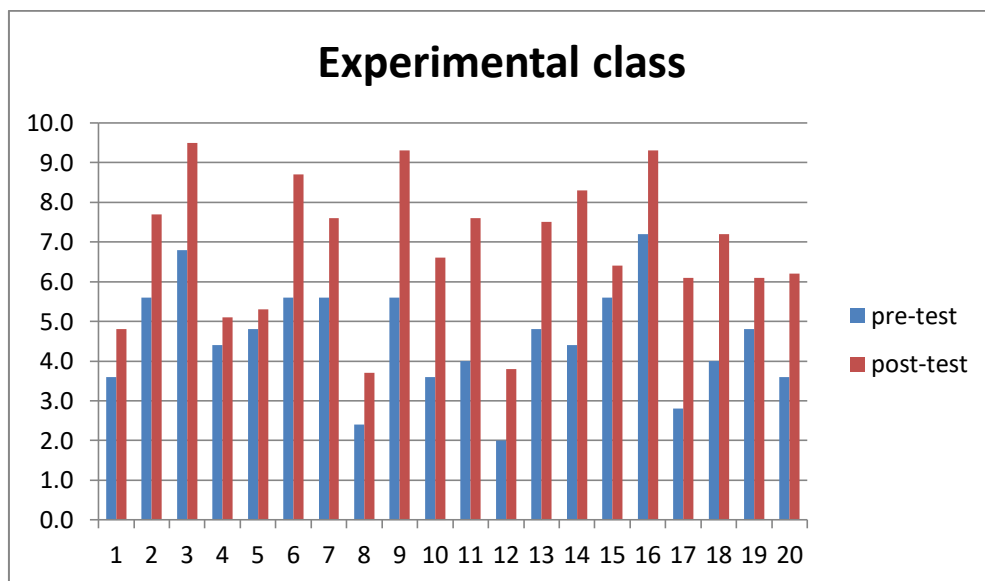
Based on finding research, the graphic showed that the students have been improved after learning pronunciation by using *English Sound Application*. The effect of *English Sound Application* to improve students' pronunciation is used to facilitate students' knowledge in how to pronounce correctly. The graphic above showed that the score in pre-test of students' pronunciation test was under the standard. Many students are don't use English pronunciation correctly in daily activity effects students' pronunciation ability. The students pay more attention to the grammar than pronunciation. This is one of the reasons they are not proficient in pronunciation, for when they do not know the grammar. They hesitate to speak out of fear of their grammar being wrong. So the chance for them to speak English a lot is evens less. In post-test, there was improvement of students' pronunciation

after they got the treatment. From the graph it can be seen that there is significant difference between pre-test and post-test.

2. Students' Score Of Pre-Test and Post-Test At The Control Class

Table 4.2 The Data Of Pre-Test and Post-Test At The Experimental Class

No.	Name	Y1	Y2	total	Average
1.	AH	6.4	7.7	14.1	7.1
2.	AFP	2.8	4.7	7.5	3.8
3.	CNA	6.0	5.3	11.3	5.7
4.	FR	2.8	4.6	7.4	3.7
5.	KSA	6.0	5.0	11.0	5.5
6.	MA	5.6	4.5	10.1	5.1
7.	MBM	2.4	2.5	4.9	2.5
8.	MT	1.6	2.5	4.1	2.1
9.	NL	4.8	5.1	9.9	5.0
10.	NA	6.4	7.1	13.5	6.8
11.	PN	4.6	5.7	10.3	5.2
12.	RZN	3.2	6.3	9.5	4.8
13.	RD	4.0	4.9	8.9	4.5
14.	RA	3.6	5.4	9.0	4.5
15.	SB	5.2	6.9	12.1	6.1

16.	SS	4.4	5.4	9.8	4.9
17.	TN	6.0	7.1	13.1	6.6
18.	WJ	4.0	6.2	10.2	5.1
19.	ZM	4.8	7.2	12.0	6.0
20.	ZLJ	6.4	7.0	13.4	6.7
total		91.0	111.1	202.1	101.1
max=		6.4	7.7	14.1	7.1
min=		1.6	2.5	4.1	2.1

Determining mean of variable Y (variable II) in pre-test with formula:

$$M_1 = \frac{\Sigma Y2}{N_2}$$

$$= \frac{91}{20}$$

$$= 4.6$$

Determining mean of variable Y (variable II) in post-test with formula:

$$M_2 = \frac{\Sigma Y2}{N_2}$$

$$= \frac{111.1}{20}$$

$$= 5.6$$

Determining mean deviation with formula:

$$M = M_2 - M_1$$

$$= 5.6 - 4.6$$

$$= 1$$

Note:

- Y1 = students' post-test scores in control class

- Y2 = students' post-test score in control class

- M1 = mean of pre-test

- M2 = mean of post-test

- N2 = number of students

The result of pre-test and post-test of students in control class can be seen in the table above. From the data the researcher know that the maximum score students got in pre-test was 6.4 and the minimum score students got was 1.6. 1.6 are the score below average, and it score was lower than the experimental score in pre-test.

Many students improved their pronunciation in the post-test, but not as much as in the experimental class. Based on research completed in the post-test at the control class, the score was 111.1. The average post-test score was 5.6. Students received a maximum score of 7.7 and a minimum score of 2.5 on the pre-test.

After combining the pre-test and post-test scores in the control class, the total score is 202.1. The average of the pre- and post-test scores was 10.1. The lowest point total was 41. The pupils received a maximum score of 14.1, although the maximum score a student can receive is 20 provided they successfully answer the pre-test and post-test in each test. It signifies that the experimental class scored higher than the control class.

The comparison of pre-test and post-test at control class

Graphic 4.2
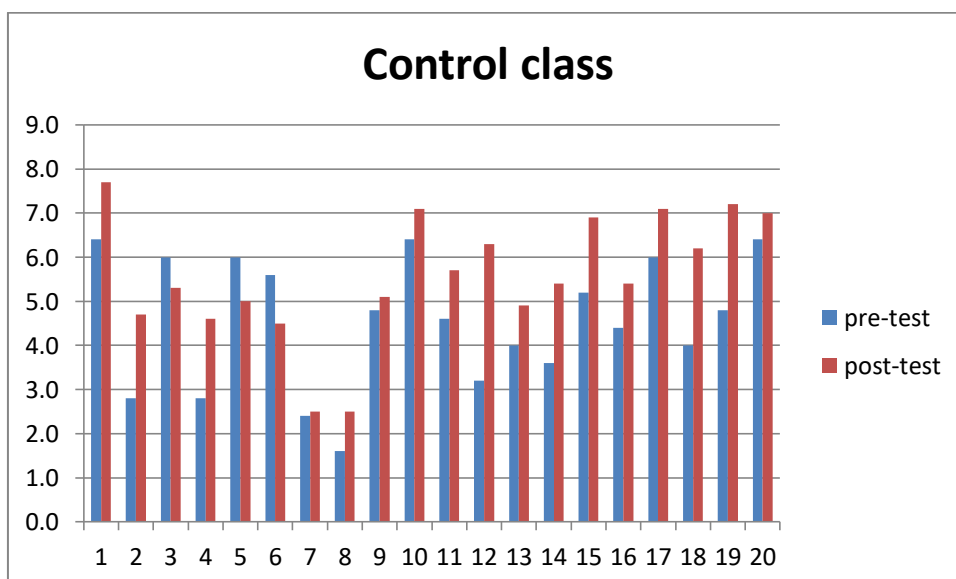
The graphic above showed that the score in post-test of students' pronunciation test was lack. The bad habitual of many students is they don't use English pronunciation correctly in daily activity. The students too easy going to what they pronounce, most of them pay attention on the grammar only. Some even think that the most important is that the listeners understand what the point and the aim from the speaker, without thinking about whether the pronunciation is correct or not. They also have limited vocabulary and knowledge about how to say or to pronounce English words correctly and fluently. In post-test, there was improvement score of students' pronunciation, although not as high as experimental class.

B. Analyzing the Data

After getting the data from pre-test and post-test, the writer makes the table of students' score to know the result from the test that has given. The writer calculated by using formula to know students ability in pronounce English words. The writer analyzed the data by t-test formula.

Table 4.3 The comparison of pre-test and post-test at experimental class and control class

No.	X1	Y1	X2	Y2
1.	3.6	6.4	4.8	7.7
2.	5.6	2.8	7.7	4.7
3.	6.8	6.0	9.5	5.3
4.	4.4	2.8	5.1	4.6
5.	4.8	6.0	5.3	5.0
6.	5.6	5.6	8.7	4.5
7.	5.6	2.4	7.6	2.5
8.	2.4	1.6	3.7	2.5
9.	5.6	4.8	9.3	5.1
10.	3.6	6.4	6.6	7.1
11.	4.0	4.6	7.6	5.7
12.	2.0	3.2	3.8	6.3
13.	4.8	4.0	7.5	4.9
14.	4.4	3.6	8.3	5.4
15.	5.6	5.2	6.4	6.9
16.	7.2	4.4	9.3	5.4
17.	2.8	6.0	6.1	7.1
18.	4.0	4.0	7.2	6.2

19.	4.8	4.8	6.1	7.2
20.	3.6	6.4	6.2	7.0
Total	**91.2**	**91.0**	**136.8**	**111.1**
Max	**7.2**	**6.4**	**9.5**	**7.7**
Min	**2.0**	**1.6**	**3.7**	**2.5**

The formula for the small sample (N >20) that will be examined:

a. Determining mean of variable X (variable I) in post-test with formula:

$$M_1 = \frac{\Sigma X2}{N_1}$$

$$= \frac{136.8}{20}$$

$$= 6.8$$

b. Determining mean of variable Y (variable II) in post-test with formula:

$$M_2 = \frac{\Sigma Y2}{N_2}$$

$$= \frac{111.1}{20}$$

$$= 5.6$$

c. Determining the difference between scores from Variable I (X) and

Variable II (Y):

D = X-Y

= 136.8 - 111.1

= 25.7

d. Determining the Mean of Difference:

$$M_D = \frac{\Sigma D}{N}$$

$$= \frac{25.7}{20}$$

$$= 1,28$$

e. Determining deviation standard of variable x and y with formula:

$$SD_D = \sqrt{\frac{\Sigma D^2}{N} - \left(\frac{\Sigma D}{N}\right)^2}$$

$$= \sqrt{\frac{660.5}{20} - \left(\frac{25.7}{20}\right)^2}$$

$$= \sqrt{33.025 - (1.285)^2}$$

$$= \sqrt{33.025 - 1.651}$$

$$= \sqrt{31.37}$$

$$= 5.6$$

f. Determining standard error of mean of difference with formula:

$$SE_{MD} = \frac{SD_D}{\sqrt{N-1}}$$

$$= \frac{5.6}{\sqrt{20-1}}$$

$$= \frac{5.6}{\sqrt{19}}$$

$$= \frac{5.6}{4..36}$$

$$= 1.28$$

g. Determining effect size single group

$$\text{Effect size} = \frac{post\ test - pre\ test}{M_D}$$

$$= \frac{6.8 - 4.6}{1.28}$$

$$= \frac{2.2}{1.28}$$

$$= 1.7$$

h. Effect size two group

$$\text{Effect size} = \frac{\sqrt{(N-1)S1^2 + (N2-2)S2^2}}{N1 + N2 - 2}$$

$$= \frac{\sqrt{(20-1)6.8^2 + (20-2)5.6^2}}{20 + 20 - 2}$$

$$= \frac{\sqrt{(19)6.8^2 + (18)5.6^2}}{38}$$

$$= \frac{\sqrt{(19)46.5 + (18)31.4}}{38}$$

$$= \frac{\sqrt{883.5 + 565.2}}{38}$$

$$= \frac{\sqrt{1448.7}}{38}$$

$$= \frac{38}{38}$$

$$= 1$$

Cohen's effect size classification:

Size	Interpretation
0-0.20	Weak effect
0.21-0.50	Modest effect
0.51-0.80	Moderate effect
≥ 0.81	Strong effect

i. Analyzing the result by using calculation of the t-test as follow

$$t_o = \frac{M_x - M_y}{\sqrt{\left(\frac{\Sigma X_1 2 + \Sigma Y_2 2}{N_1 + N_2 - 2}\right) - \left(\frac{N_1 + N_2}{N_1 . N_2}\right)}}$$

$$t_o = \frac{136.8 - 111.1}{\sqrt{\left(\frac{902 + 592}{20 + 20 - 2}\right) - \left(\frac{20 + 20}{20.20}\right)}}$$

$$= \frac{25.7}{\sqrt{\left(\frac{1494}{38}\right) - \left(\frac{40}{400}\right)}}$$

$$= \frac{25.7}{\sqrt{(39.3) - (0,1)}}$$

$$= \frac{25.7}{\sqrt{25,3}}$$

$$= \frac{25.7}{5.02}$$

$$= 5.11$$

Determining t_{table} with significant 5%

df = N1 + N2 -2

$= 20 + 20 - 2 = 38$

$= 2.02$

Determining t_{table} with significant 1%

df = N1 + N2 -2

$= 20 + 20 - 2 = 38$

$= 2.77$

Note:

D = difference between score of variable X and score of variable Y

D^2 = difference between score of variable X and score of variable Y which has been squared

ΣD = amount difference (D) between variable X and variable Y

$ΣD^2$ = amount difference (D) between variable X and variable Y which has been squared

The result based on research conducted in pre-test at experimental class got the score 91.2. The average score of pre-test was 4.6. The lowest score in pre-test was 2.0, and the highest score was 7.2.

While the result based on research conducted in pre-test at control class got the score 91.0. The average score of pre-test was 4.6. The lowest score in pre-test was 1.6, and the highest score was 6.4.

After doing the pre-test, the writer applies new media, which is English Sound Application in next class meeting at experimental class.

In the final meeting, after doing all treatment, the writer gives the students the post-test to know students' improvement in pronounce English words. The test between experimental class and control class is the same.

The post-test at experimental class, majority of students have increased in their pronunciation. The result based on research conducted in post-test at experimental class got the score 136.8. The average score of post-test was 6.8. The lowest score in post-test was 3.7, and the highest score was 9.5. Despite the use of English Sound Application, some students continued to pronounce words improperly. However, in regular Indonesian daily speech, it is accepted.

While the post-test at control class, students have increased in their pronunciation not as high as in the experimental class. The result based on research conducted in post-test at control class got the score 111.1. The average score of post-test was 5.6. The lowest score in post-test was 2.5, and the highest score was 7.7.

After obtaining the data, the researcher compares the pre-test and post-test scores in the experimental and control classes. Deviation and squared deviation are calculated by the researcher. As may be seen from the formula above, there was no significant difference between the experimental and control groups in the pre-test. The pre-test scores of the two classes are nearly identical. In the post-test, however, there is a difference in performance between the two groups.

The Determining difference between scores from Variable I (X) and Variable II (Y) in this research is 25.7. The Determining the Mean of Difference between experimental class and control class in post-test was 1,28. The result from determining standard error of mean of difference was 1.28.

The result from determining deviation standard of variable x and y was 5.6. and KKM in the school for English lesson was 6. The entirety average score in post-test of experimental class was 6.8, while the entirety average score of control class was 5.6. Therefore the score of experimental class was above standard deviation and KKM after treatment.

The result from analyzing effect size by using calculation of the t-test is 1.7. It means that English Sound Application has effect to improve students' pronunciation. Because 1.7 was strong effect.

According to the result of statistic calculation, it can be obtained that the score of t_o is = 5.11 degree, while the score of t_{table} about 2.02 (as degree of significance).

The result shows that there was a significant enhancement in pronunciation at experimental class after the treatment. Although there was enhancement at control class, but it not as much as experimental class.

The comparison of pre-test at experimental class and control class

Graphic 4.3
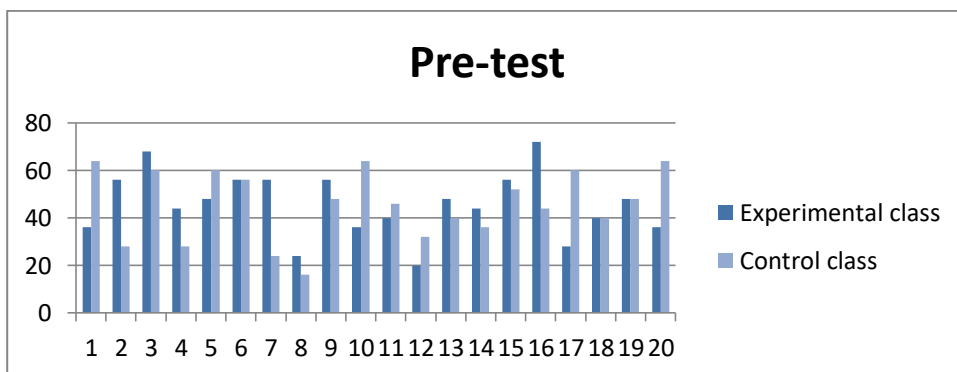
Based on the graph above, it can be seen that the score in the pre-test between experimental class and control class were not much different, and even almost the same. The total score in experimental class was 91.2 and the total score in control class was 91.0 out of twenty students from each class. The average score in experimental class was 4.6 and the average score in control class was 4.6. KKM at MTs Mathla'ul Huda is 6 which mean many students of both classes got scores below the average in the pre-test.

The comparison of post-test at experimental class and control class

Graphic 4.4
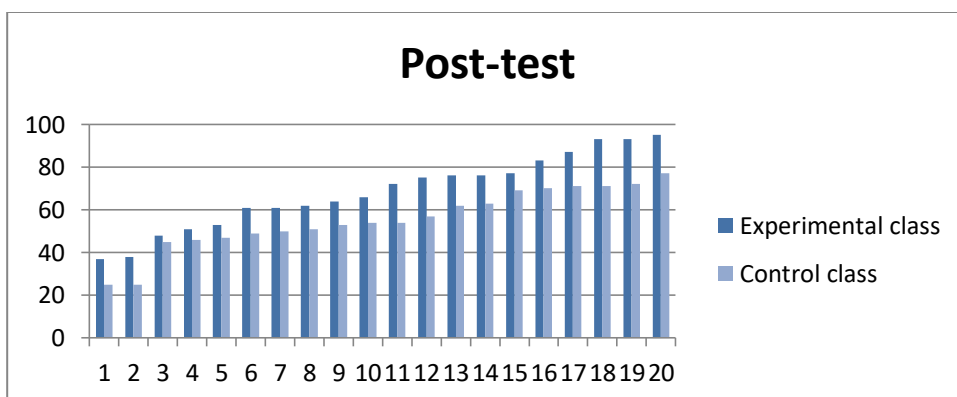
The graph above showed in the post-test there was improvement in both experimental class and control class. On the graph clearly visible that experimental class dominates higher scores than control class. The total score in experimental class was 136.8 and the total score in control class was 111.1 out of twenty students from each class. The average score in experimental class was 6.8 and the average score in control class was 5.6.

C. Interpretation of the Data

In this discussion, the writer will analyze and describe all of data got from students pre-test and post-test. From this discussion, hopefully it helps other teacher to decide whether English Sound Application compatible and feasible to use in English class to improve students' pronunciation as well or not to use it.

The research was held to answer the question "How is the student's pronunciation ability in the second year of MTs Mathla'ul Huda?". The result in this research explained and showed how proficient students' pronunciation ability at the eighth grade of MTs Mathla'ul Huda Pandeglang before and after using *English Sound Application* in learning process. Based on the data, the researcher analyses the average score in experimental class before using *English Sound Application* 4.6 of range 2.0-7.2 are describing the students' pronunciation ability are deficiency and under standard. They often misspell English words and inaccurate uttering words or sentence that make the speaker some while incomprehensible and make the listener felt distracted. After the researcher using

English Sound Application as a media to help students improve their pronunciation, the students have improved better. The improvement can be proven by seeing to the average score of post-test which is greater and better than the average score of pre-test. The average score in post-test after using *English Sound Application* 6.8 of range 3.7-9.5 are describing some students' pronunciation ability still under standard, but some of them increase better. Their pronunciation was comprehensible with the listener.

The next, "How is the effectiveness of English sound application to improve students' pronunciation in the second year of MTs Mathla'ul Huda Boarding school?". To answer it, the researcher formulated The experimental hypothesis (H_a) and the Null hypothesis (H_o) as follow:

The experimental hypothesis (H_a) states that there is significant difference of students pronunciation improvement between students who are learn using the English Sound Application and students who are learn without using the English Sound Application

The null hypothesis (H_o) states that there is not significant difference of students pronunciation improvement between students who are learn using the English Sound Application and students who are learn without using the English Sound Application.

The assumption of this hypothesis as follow:

If $t_o \geq t_{table}$ the Null Hypothesis is rejected, while the Alternative Hypothesis is accepted.

Based on the result of statistic calculation, it was obtained that the score of t_o is in the degree of 5.11. the degree of freedom is 38. In this paper, the research used the significance of 5%, then the score of t_{table} is 2.02. Therefore T observation: t_{table} 5.11 > 2.02 (t_o). The researcher sum up that $t_o \geq t_{table}$. It means the null hypothesis (H_o) is rejected and the alternative hypothesis (H_a) is accepted.

It shows that English Sound Application has significance effect and influence for students' pronunciation at the eighth grade of MTs Mathla'ul Huda. In other research, the Application which support pronunciation also accepted and gave strong effect to the students, because after using the application in learning process, there was significant improvement.

It means, English Sound Application can be used in learning as a good media to improve students' pronunciation ability. The English Sound Application is not only made the students know the sound, stress, and intonation of English words correctly and pronounce as the native, but it also made students more enjoy and interest in learning process. So the students more spirit and learn English pronunciation actively, seriously, and hardly with pleasure. So it was good to be used in the learning process by the teacher.